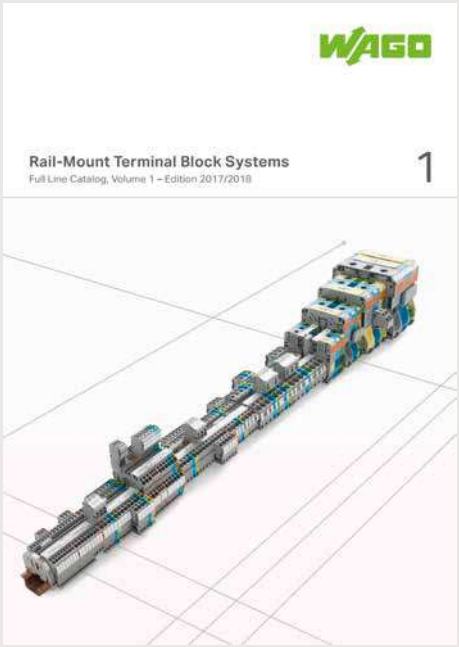
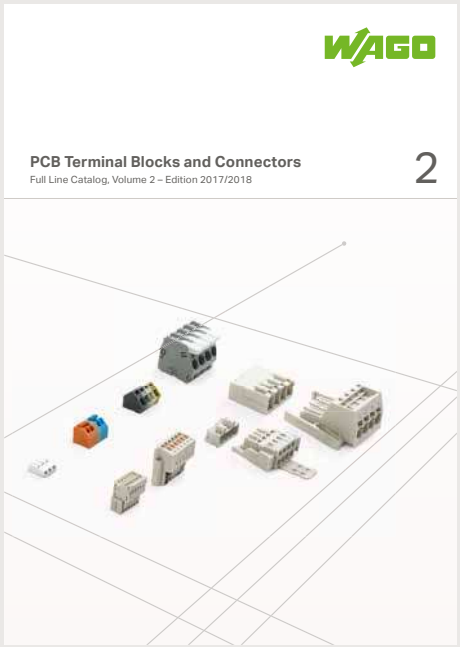
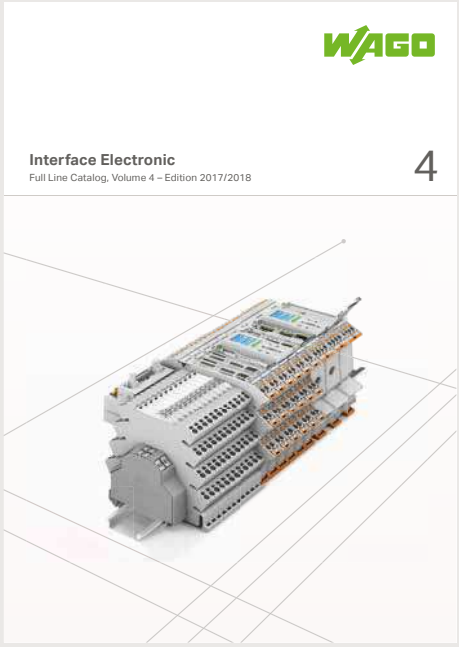
PSF 5.0

Product Short Form













WAGO Full Line Catalogs



Volume 1, Rail-Mount Terminal Block Systems

- Rail-Mount Terminal Blocks
- Rail-Mount Terminal Blocks with Pluggable Connector (X-COM®-SYSTEM)
- Patchboard Systems
- Terminal Strips
- PUSH WIRE® Connectors for Junction Boxes
- Lighting Connectors
- Shield Connecting System



Volume 2, PCB Terminal Blocks and Connectors

- PCB Terminal Blocks
- SMD PCB Terminal Blocks
- *MULTI CONNECTION SYSTEM (MCS)*
- Pluggable PCB Terminal Blocks
- Feedthrough Terminal Blocks
- Specialty Connectors
- Empty Housings



Volume 3, Automation Technology

- Software
- Operating & Monitoring
- Controllers
- Modular I/O-SYSTEM, IP20/IP67
- Industrial Switches
- Radio Technology, *TO-PASS*® Telecontrol Technology
- IP67 Sensor/Actuator Boxes, IP67 Cables and Connectors



Volume 4, Interface Electronic

- Relay and Optocoupler Modules
- *JUMPFLEX*® Signal Conditioners and Isolation Amplifiers
- Current and Energy Measurement Technology
- *EPSITRON*® Power Supply System
- Interface Modules and System Wiring
- Overvoltage Protection
- Empty Housings



Volume 5, *WINSTA*® – The Pluggable Connection System

- Pluggable Connectors
- Snap-In Device Connectors
- Pluggable PCB Connectors
- Distribution Connectors
- Cable Assemblies
- Flat Cable Systems
- Distribution Boxes



Volume 6, Marking

- Terminal Block Marking
- Cable and Conductor Marking
- Device Marking
- Printer
- Software
- Marker Carriers

PSF 5.0

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	**Power Supplies** *EPSITRON®* Power Supplies, Electronic Circuit Breakers (ECBs), Uninterruptible Power Supply (UPS), Buffer and Redundancy Modules	186	7
	**Interface Electronic** *JUMPFLEX®* Signal Conditioners and Isolation Amplifiers, Relay Modules, Optocoupler Modules, Relay Sockets, Function Modules	200	8
	**Current and Energy Measurement Technology** Current Transformers, Rogowski Coils, Current Sensors, Voltage Taps, Rogowski Signal Conditioners	224	9
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More than 50 Years of Innovation



1951

The First
WAGO Spring Clamp
Terminal Block



1974

WAGO PUSH WIRE®
Connector for Junction
Boxes



1977

CAGE CLAMP® Rail-
Mounted Terminal Blocks

Since its establishment in 1951, WAGO has pioneered multiple innovative connection systems for both electrical and electronic engineering applications. The idea for a screwless termination system was born in 1951; the first terminal blocks with spring clamp termination technology were presented at the Hanover Fair the same year.

Precisely designed and manufactured, spring clamp terminal blocks not only guarantee a faster and easier connection, but also offer greater safety because the contact quality is largely independent of operator skill.

Now, WAGO is meeting virtually all of the industry's needs as both the leader in Spring Pressure Connection Technology and a pioneer in automation technology. In 1977, the success story of the CAGE CLAMP® began with "vibration-proof, fast and maintenance-free connections." Safe operation for countless devices, systems and installation depends on the unconditional reliability of our products.

1985

Pluggable Electronic Modules
for Rail-Mounted Terminal Blocks



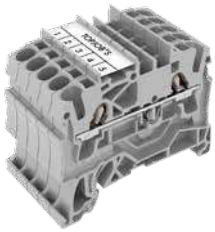
1998

POWER
CAGE CLAMP®



2003

TOPJOB® S
Rail-Mounted Terminal
Blocks



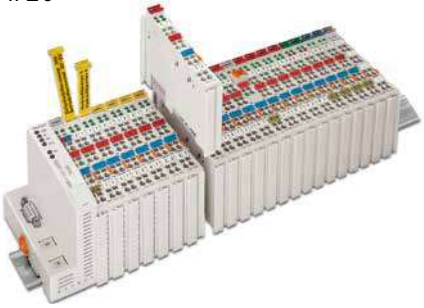
2005

WAGO *SPEEDWAY 767*,
Modular I/O-SYSTEM, IP67



1995

WAGO-I/O-SYSTEM, 750/753
Series Modular I/O-System,
IP20



2001

WINSTA® –
The Pluggable Connection
System



2004

CLASSIC Splicing
Connectors for All
Conductor Types,
222 Series



2006

WAGO *JUMPFLEX*® –
Signal Conditioners and
Pluggable Relay Modules



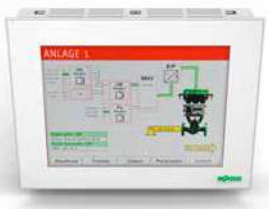
Recognized and Approved Worldwide



2008
TO-PASS® – Scalable Telecontrol Technology



2010
PERSPECTO® – Touch and Control Panels



2014
COMPACT Splicing Connectors for All Conductor Types, 221 Series



2015
PFC200 – Controllers



2009
X-COM®S-SYSTEM



2010
PUSH WIRE® Connectors for Junction Boxes, 2273 Series



2014
Shield Clamping Saddles



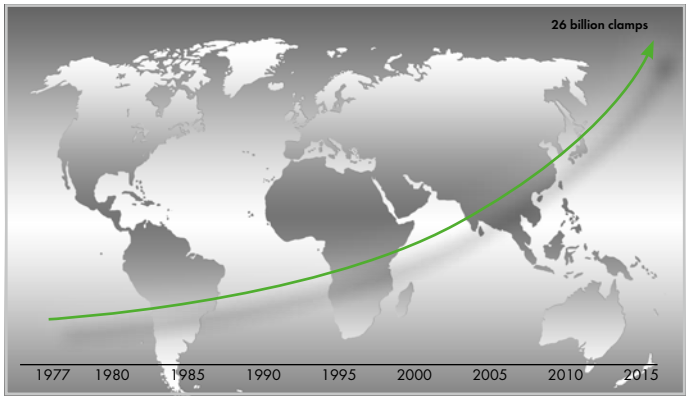
2015
e!*COCKPIT* Software Integrated Engineering



From Pioneer to Leader

When the first screwless terminal blocks debuted at the Hanover Fair in 1951, they represented a significant advancement in manufacturing. At the time, manufacturing terminal blocks was not possible because the carbon steel available then did not meet the high quality requirements.

However, WAGO was quite active in the years leading up to the 1977 debut of the first series of CAGE CLAMP®-equipped rail-mounted terminal blocks from 28–6 AWG (0.08–16 mm²).



Number of CAGE CLAMP® springs produced to date

With numerous developments – from the Suprafix banana plug product family up to the first range of rail-mounted terminal blocks for conductors up to 6 AWG (16 mm²) – WAGO has firmly established itself as an innovator.

With this reputation and the desire for "vibration-proof, fast and maintenance-free" connections, CAGE CLAMP® quickly outperformed all previous connection technologies to become a worldwide industrial standard.

Today, CAGE CLAMP® technology has several imitators, yet it remains unmatched. And WAGO continues to set new standards with further developments, such as CAGE CLAMP® Compact (1996) for ultra-compact applications and the WAGO POWER CAGE CLAMP (1998) for a rated cross-section up to 350 kcmil (185 mm²). Figures speak for themselves: More than 26 billion CAGE CLAMP® springs have been sold worldwide, and every day, millions of clamps are added to that number.

In 1951, WAGO was founded in Minden, Germany. Now, the WAGO Group consists of 32 companies with more than 6,700 employees, worldwide operations and global sales of 706 million euros (2015).

The first factory was located in Minden, Germany, which is also our headquarters. As part of WAGO's global expansion, additional factories have been built: 1977 in Domdidier (Switzerland), 1979 in Milwaukee (USA), 1995 in Sondershausen (Germany) and Delhi (India), 1997 in Tianjin (China) and Wroclaw (Poland).

Products manufactured locally for domestic and foreign markets create the starting point for localized distribution networks that cover WAGO's complete product portfolio. Such organization enables WAGO subsidiaries and sales offices to develop and deliver custom-designed products that comply with local regulations and meet local demand. More than half of WAGO's global staff of 6,700 is employed outside of Germany.

WAGO Worldwide



WAGO Minden, Germany – Global Headquarters



WAGO Sondershausen, Germany



WAGO Switzerland



WAGO Poland



WAGO India



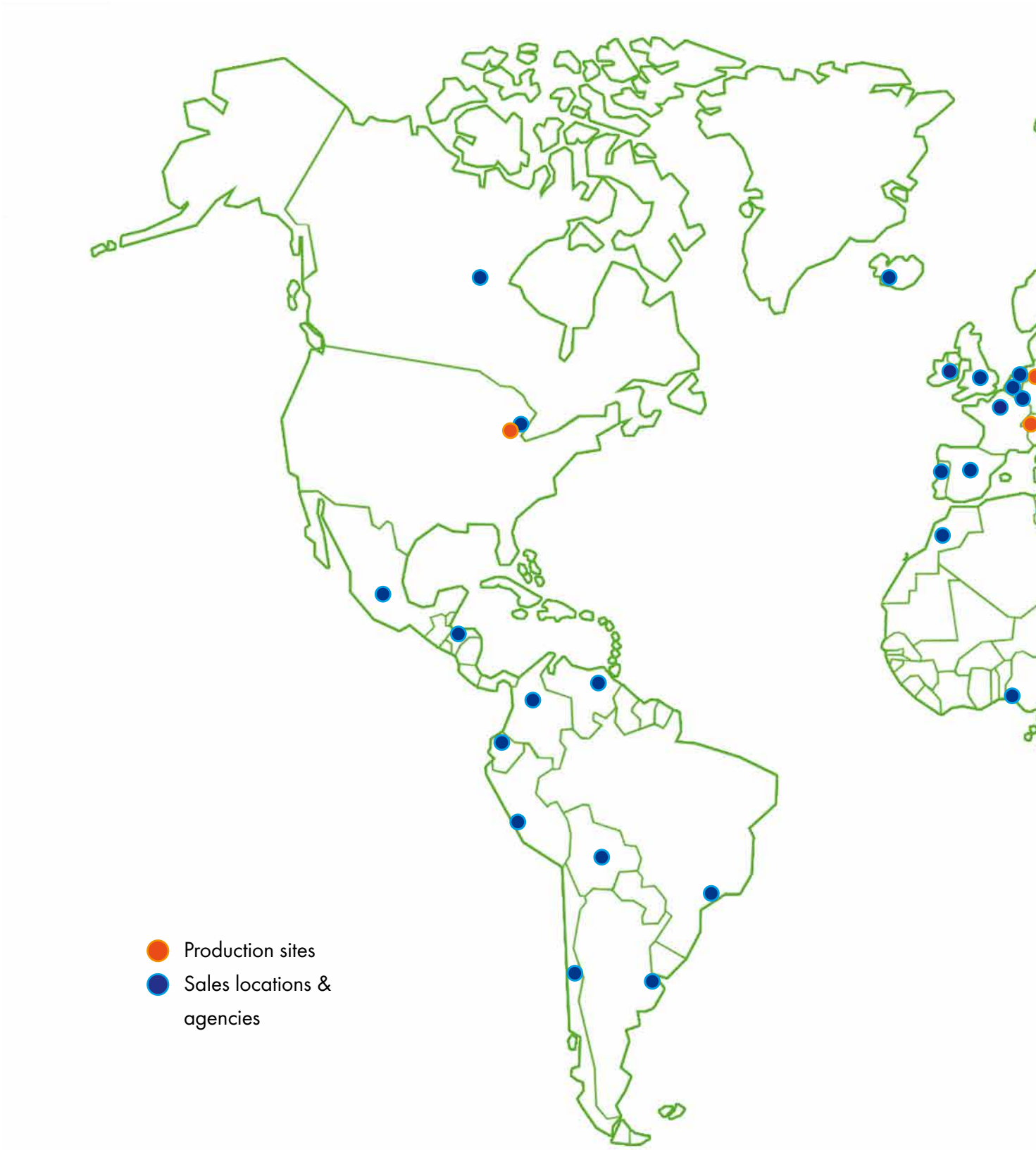
WAGO USA



WAGO China

WAGO – At Home in the World

WAGO is a group of companies that operates globally with subsidiaries or agencies on all continents and production facilities in Germany (Minden, Westfalia and Sondershausen, Thuringia); Switzerland (Domdidier, Fribourg); Poland (Wrozlaw); China (Tianjin); India (Noida, Delhi); USA (Germantown) and Japan (Koto-Ku, Tokio).



International Success Requires International Presence

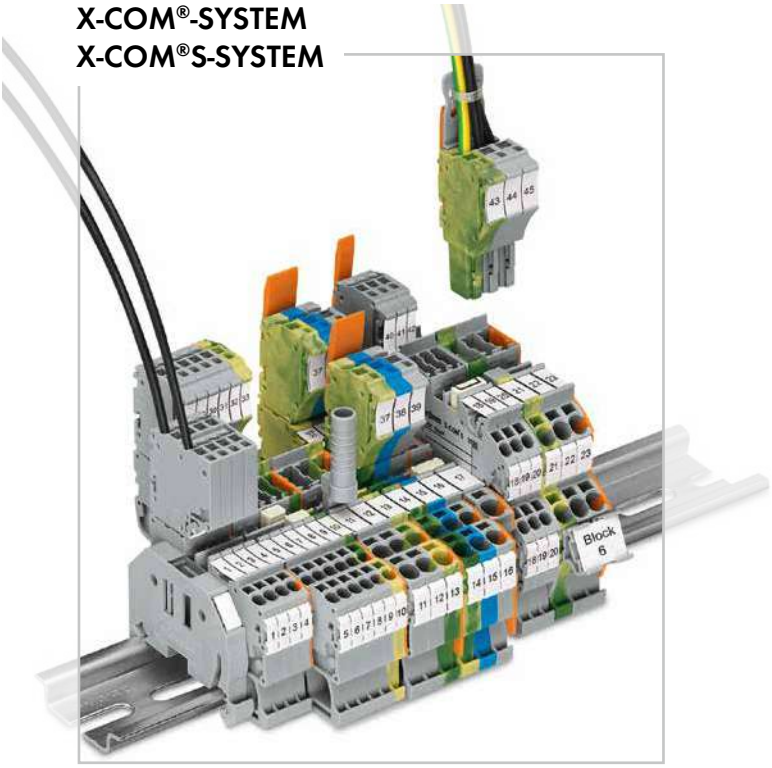
Our presence in local markets enables us to provide service tailored to our individual customers, while keeping a finger on the pulse of our valued suppliers.

This proximity allows us to develop and deliver products and solutions that comply with local codes and regulations. That is what we consider being close to our customers.



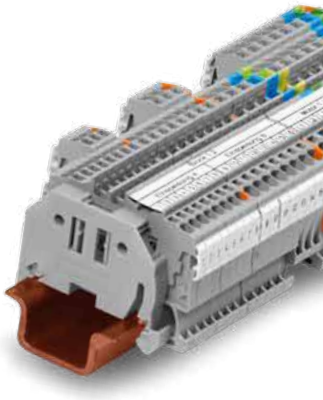
WAGO Product Range: Electrical Interconnections

X-COM®-SYSTEM
X-COM®S-SYSTEM

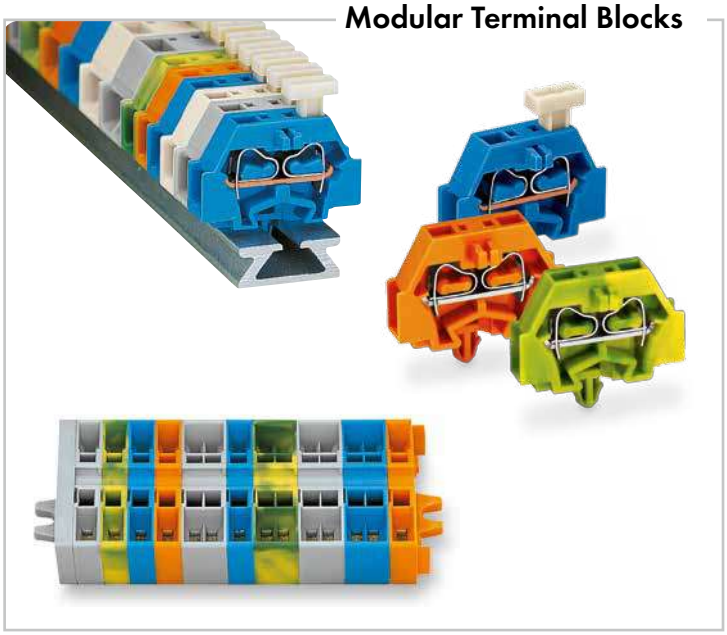


Installation Connectors





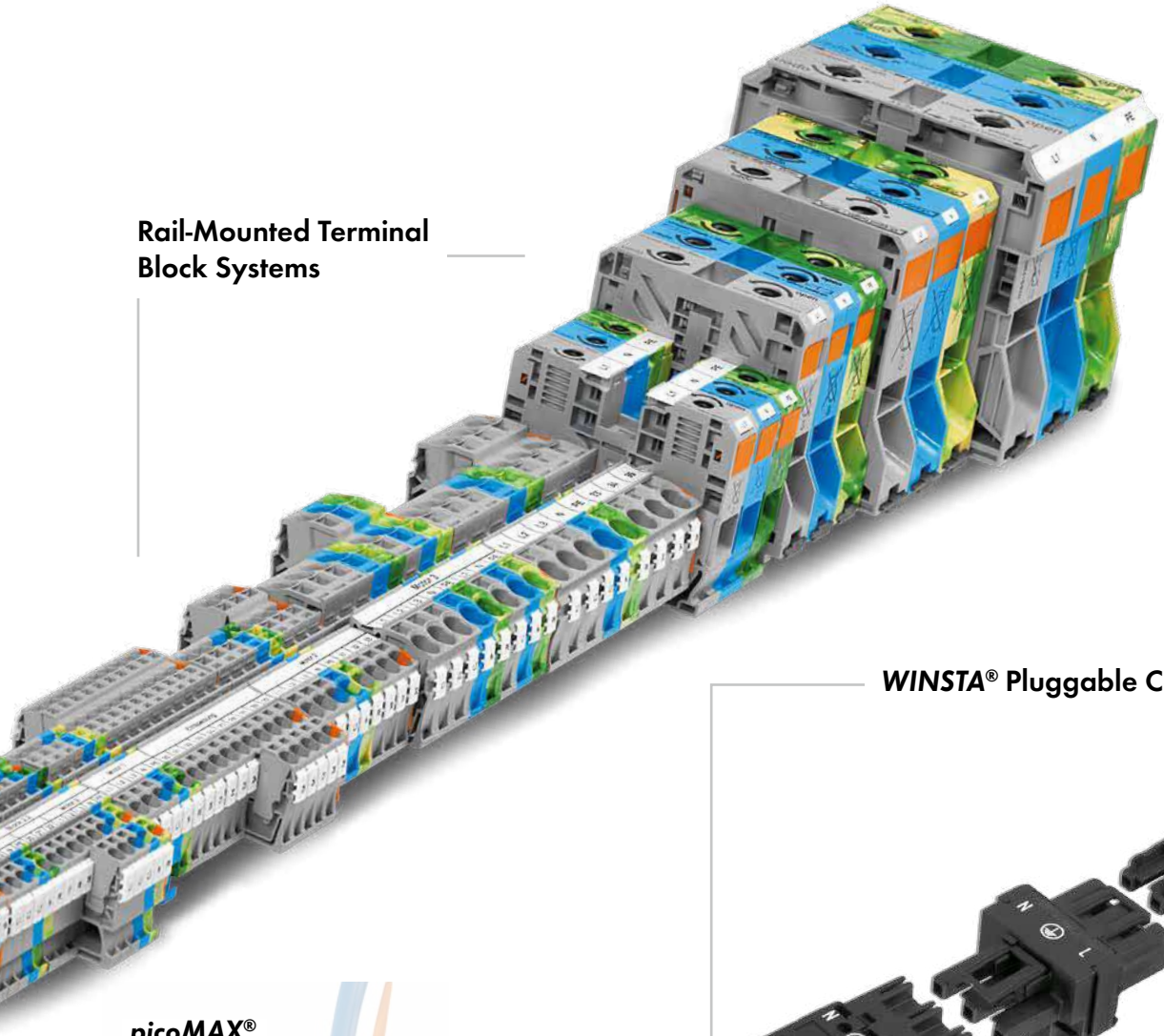
Modular Terminal Blocks



PCB Terminal Blocks



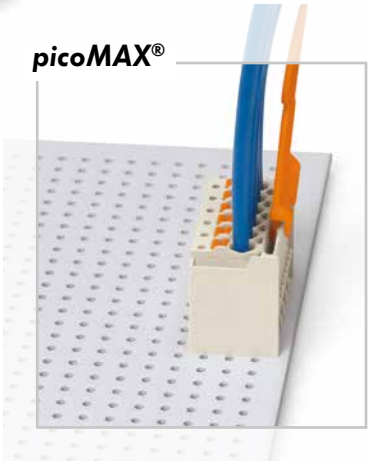
Rail-Mounted Terminal Block Systems



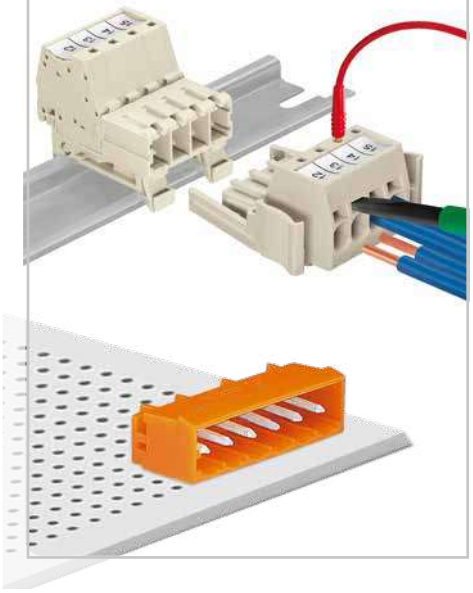
WINSTA® Pluggable Connection System



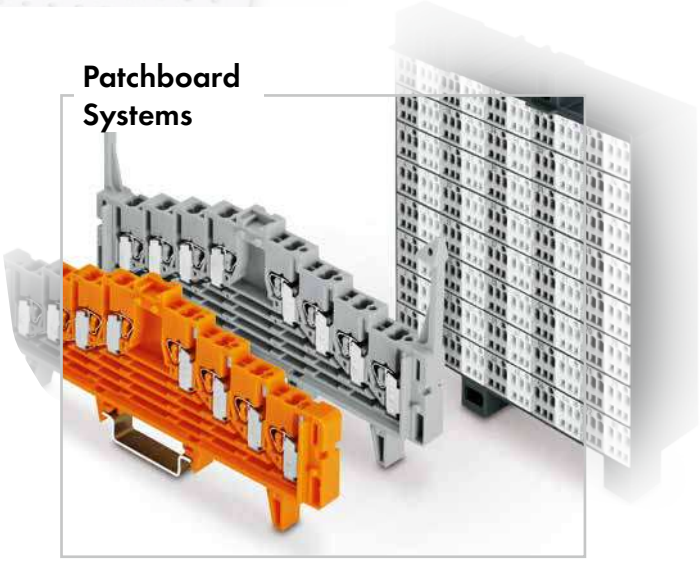
picoMAX®



Pluggable Connectors



Patchboard Systems



WAGO Product Range: Automation

e!DISPLAY



Controllers



EPSITRON® – Advanced Power Supply System



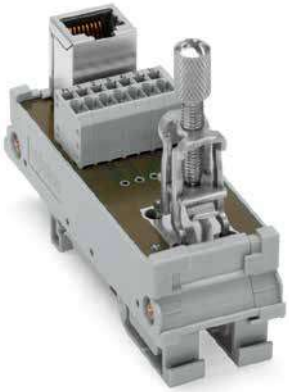
WAGO I/O-Systems



Software and Apps



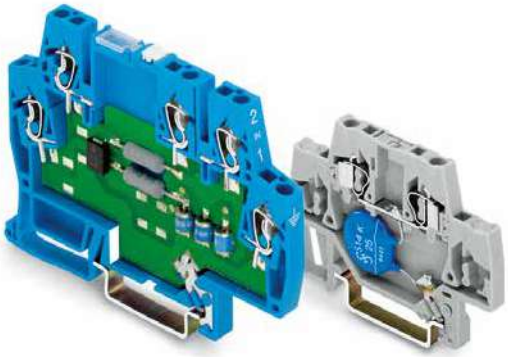
Interface Modules



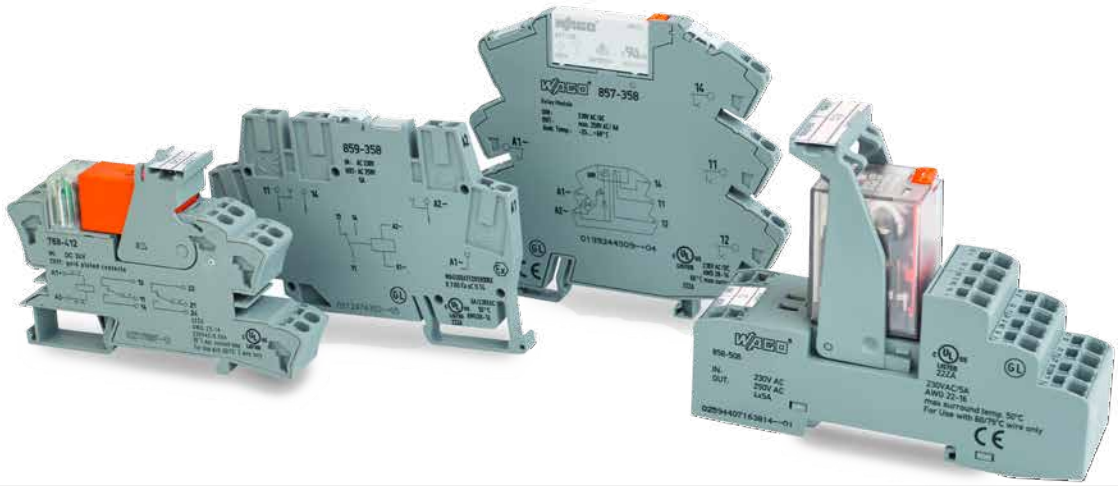
JUMPFLEX® Signal Conditioners



Overvoltage Protection



Relay Modules and Sockets



A Wide Variety of Applications

BUILDING AUTOMATION



Building installation and automation

POWER AND PROCESS TECHNOLOGY



Energy, food, water, chemical, petrochemical and metal industries

INDUSTRY



Plant automation and traffic engineering

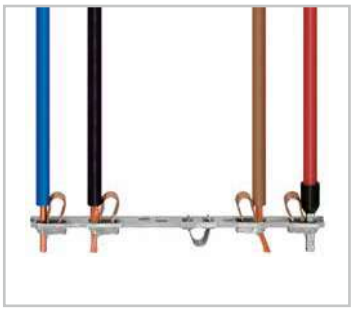
WAGO products support a wide range of industries. Our components and systems are trusted worldwide in industrial, automotive, process engineering, building technology and many other sophisticated applications.
In every industry and every country, we focus on the following objectives:

- Implementing innovative solutions
- Creating a compact design
- Saving energy
- Making equipment safer
- Reacting to requirements quickly and flexibly
- Minimizing installation, maintenance costs and downtime
- Ensuring reliable operation under extreme conditions
- Guaranteeing high availability and technical safety
- Accommodating individual customer requirements

Operating WAGO Connection Technologies

Please follow the applicable product-specific termination instructions.

PUSH-IN CAGE CLAMP®







Push-in CAGE CLAMP® terminates the following copper conductors:
solid



stranded



fine-stranded, also with tinned single strands



fine-stranded, tip-bonded



fine-stranded, with ferrule (gastight crimped)



fine-stranded, with pin terminal (gastight crimped)

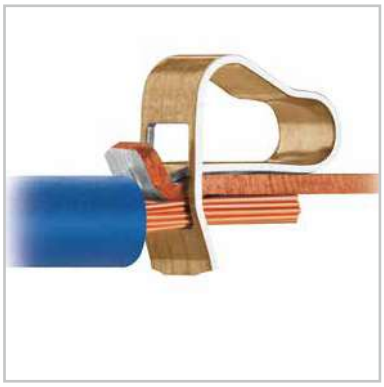
The universal connection with an additional advantage: Push-in connection

Terminate solid and stranded, as well as ferruled conductors, by simply pushing them in – no tools required.

Termination for all conductor types:
- Open clamping unit
- Insert the conductor
- Release clamp

CAGE CLAMP®







CAGE CLAMP® terminates the following copper conductors:
solid



stranded



fine-stranded, also with tinned single strands



fine-stranded, tip-bonded



fine-stranded, with ferrule* (gastight crimped)



fine-stranded, with pin terminal (gastight crimped)

The universal connection for solid, stranded and fine-stranded conductors

Termination:
- Open clamping unit
- Insert the conductor
- Release clamp

*With ferruled, fine-stranded conductors, it is necessary to use a terminal block one size larger than the conductor's nominal cross-section.

Operating WAGO Connection Technologies

Please follow the applicable product-specific termination instructions.

POWER CAGE CLAMP







POWER CAGE CLAMP terminates the following copper conductors:
solid



stranded



fine-stranded, also with tinned single strands

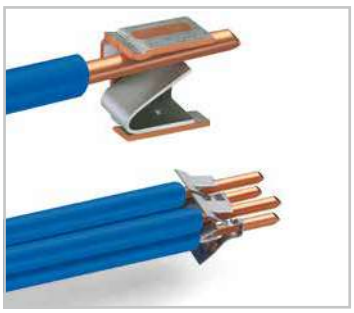


fine-stranded, with ferrule (gastight crimped)

The universal connection for conductors larger than 2 AWG (35 mm²)

Termination:
- Open clamp by turning an Allen wrench counter-clockwise
- Press the integrated latch to open clamping unit for hands-free wiring
- Insert the conductor
- A small counter-clockwise rotation closes the clamp, securing conductor

PUSH WIRE®







PUSH WIRE® terminates the following copper conductors:
solid



stranded

PUSH WIRE® connection for solid and stranded conductors (depending on the model used)

Termination:
Tool-free, twist-free terminations for solid and rigid stranded conductors – simply push into the unit.

WAGO Connection Technology Benefits

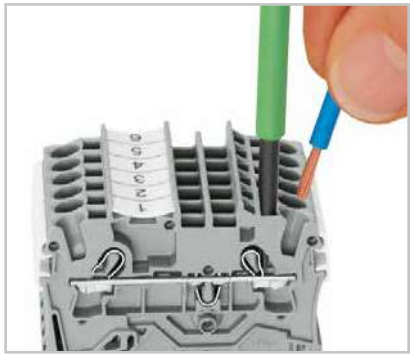
Simple, Easy-to-Use Design

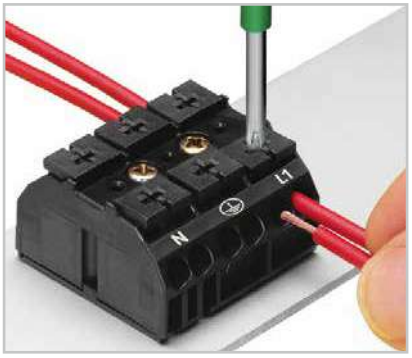
Front-entry wiring:

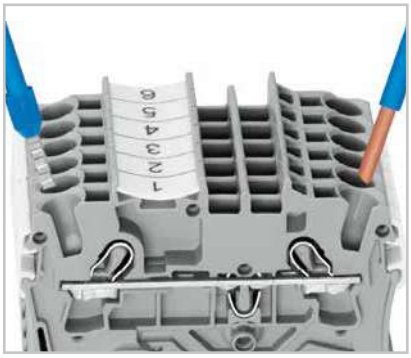
Side-entry wiring:

PUSH-IN CAGE CLAMP®

Push-in CAGE CLAMP® connection



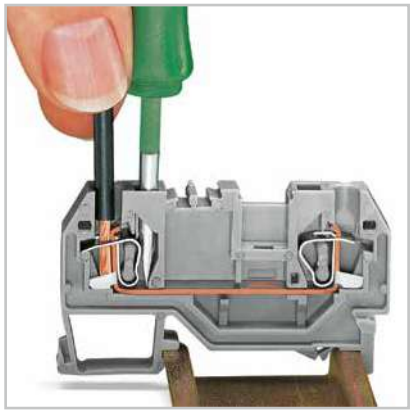




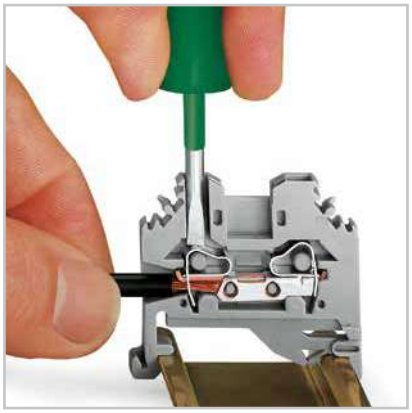
Push-in CAGE CLAMP® terminates both solid and ferruled conductors **by simply pushing them in.**

CAGE CLAMP®

CAGE CLAMP® connection



CAGE CLAMP® connection



One Conductor per Clamping Unit

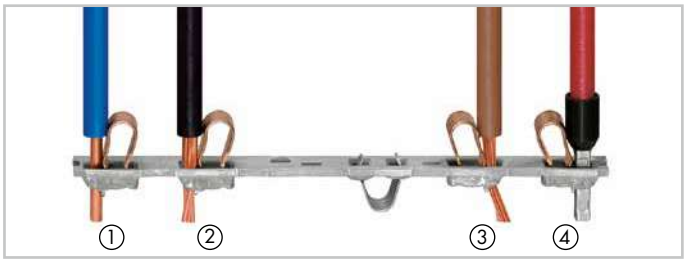
A number of VDE directives mandate or recommend that only one conductor should or must be connected per clamping unit (e.g., DIN VDE 0611, Part 4, 02.91, Section 3.1.9). WAGO complies with this safety requirement, as expressed in the corresponding directives.

Technical and economical benefits for the users:

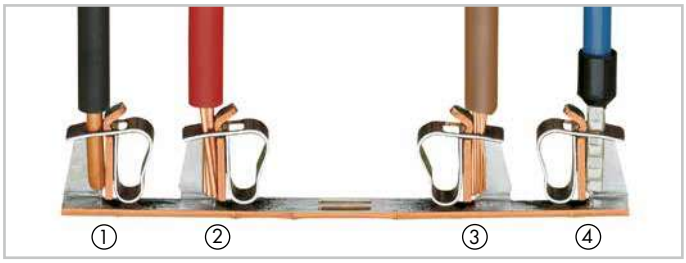
- Each conductor is clamped independently.
- Any conductor size combination per potential can be safely connected.
- Where re-wiring is required, only the conductor to be changed is removed from the clamping point, all other conductors remain safely clamped.
- The arrangement of more than two clamping units on one current bar permits potential multiplication, without jumpers or additional terminal blocks.

CAGE CLAMP® and Push-in CAGE CLAMP® terminate all copper conductors from 28–2 AWG (0.08–35mm²) (350 kcmil/185 mm²), or from 22–4 AWG (0.25–25 mm²). Splice protection is not required, but possible.

The conductor is pressed against the current bar in the **predefined contact area**, without damage. The clamping force adjusts automatically to the conductor size. The clamp dynamically compensates for changes/movement of the conductor to eliminate the risk of a loose connection.

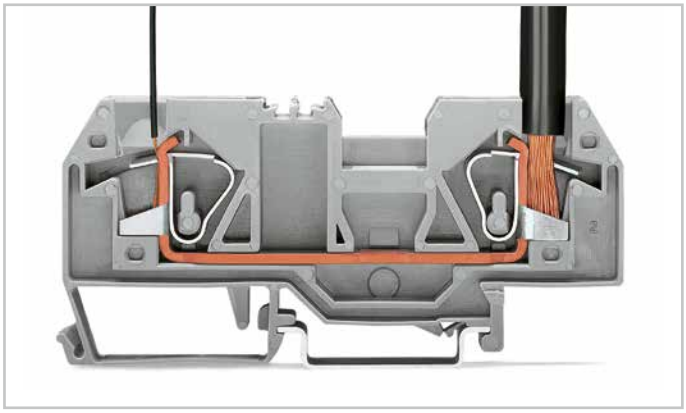


Push-in CAGE CLAMP® terminates one conductor per clamping unit.



CAGE CLAMP® terminates one conductor per clamping unit.

① solid
② stranded
③ fine-stranded
④ fine-stranded, with ferrule (gastight crimped)



An unlikely connection demonstrates this capability: 24 AWG (0.2 mm²) conductor (left) and 6 AWG (16 mm²) conductor (right) in a 6 AWG (16 mm²) terminal block.

WAGO Connection Technology Benefits

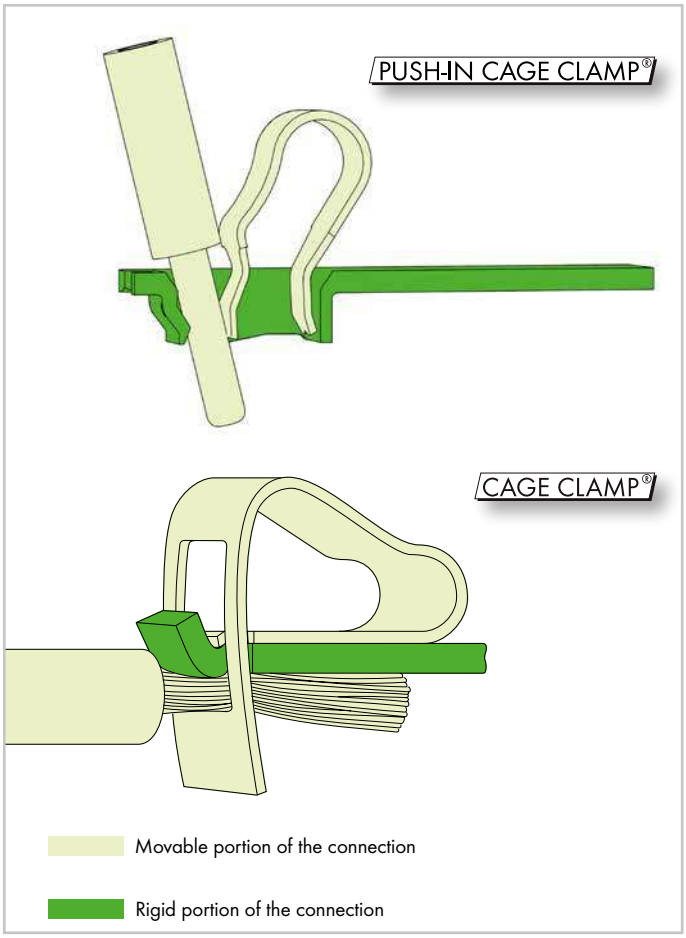
Vibration- and Shock-Proof – Maintenance-Free

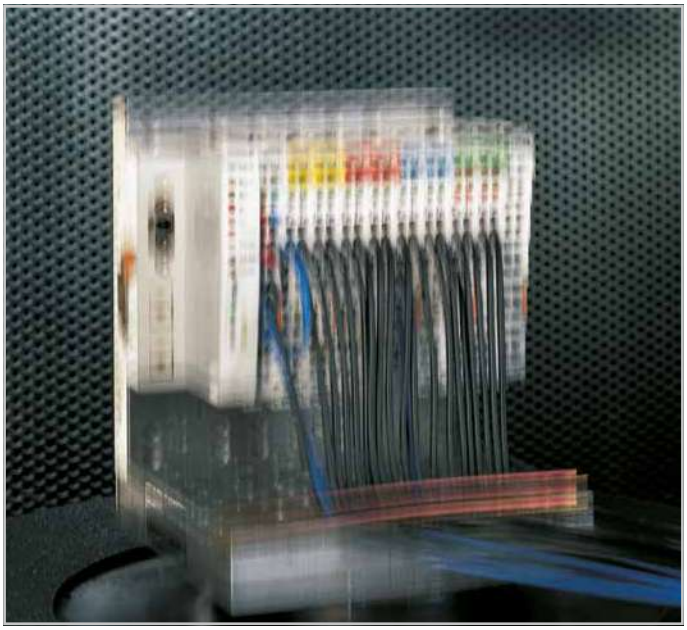
The **vibration-proof properties** of CAGE CLAMP® connections have been tested and successfully validated in a vibration test to IEC/EN 60068-2-6. In this test, a frequency band up to 2000 Hz, at different accelerations up to 20g and different amplitudes up to 20 mm, is passed continuously in three axes. Additionally, international authorities have placed extremely demanding requirements on electrical installations. Railway authorities tested for electrical installations in rolling stock (IEC/EN 61373); multiple marine agencies (e.g., GL, LR and DNV) have declared that CAGE CLAMP® meets their lofty approval standards.

In the **Impact Test** (IEC/EN 60068-2-27) for railway applications (IEC/EN 61373), test specimens are exposed to instant shock stresses, instead of permanent vibrations. Stresses up to 100g on the x-, y- and z-axis were easily passed.

Maintenance-free operation **results from excellent long-term consistency of the electrical and mechanical properties of the clamping connection – or more precisely, the clamping unit.** The Voltage Drop Test evaluates clamping unit quality under stresses such as vibrations, temperature changes and corrosive influences, in order to verify that the contact point is gas-tight. The long-term consistency of CAGE CLAMP® technology has been demonstrated both through laboratory testing by international approval agencies and from worldwide applications.

The resulting maintenance-free operation reduces service costs, leading to greater equipment availability and reliability.





Vibration test: WAGO-I/O-SYSTEM

High-Current Carrying Capacity

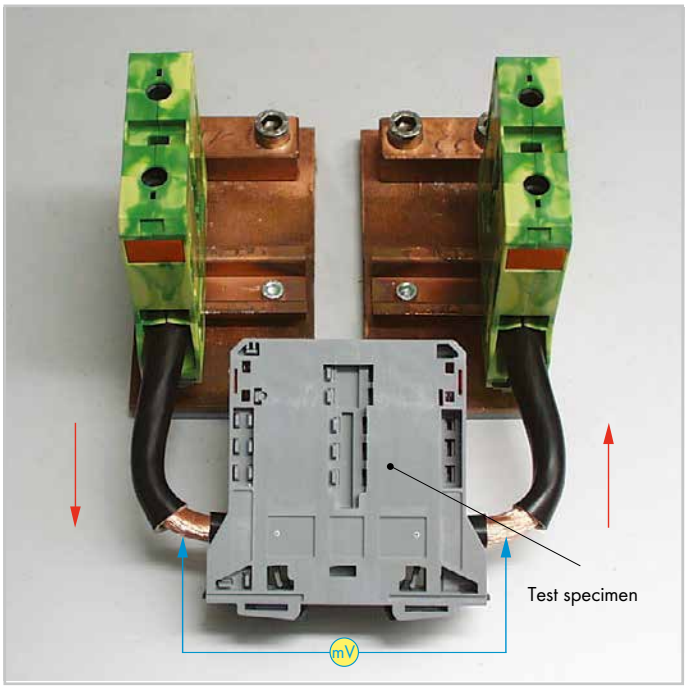


Unrealistic test of a CAGE CLAMP® rail-mounted terminal block, 12 AWG (4 mm²): **Increase of current without time limit;** In such an extreme test – normally, fuse devices would have interrupted the current – **the electrical connection is undamaged.**

In the **Short-Time Withstand Current Test** (e.g., per IEC/EN 60947-7-1), through rail-mounted terminal blocks shall be capable of withstanding for one second the **rated short-time withstand current which corresponds to 120 A/mm² of its rated cross-section.** In the case of a **WAGO 285 Series** 185 mm² (350 kcmil) High-Current Terminal Block, this translates to 22,200 A!

Ground conductor terminal blocks are submitted to the "120 A per mm²" test for 3x one second.

The pass criterion for the test is the voltage drop (limit value and constancy). CAGE CLAMP® and
Push-in CAGE CLAMP® connections passed this test without damage or reduced functionality.



Test arrangement: "Short-Time Current Withstand Test"

WAGO Connection Technology Benefits

Gastight Clamping Units – Measurable Contact Quality



Climatic chambers simulate standard atmospheres that could impact the long-term constancy of clamping units. All WAGO products meet requirements for the following climatic tests:

- Temperature Cycling Test per IEC/EN 60947-7-1, IEC/EN 60998-2-2
- Industrial Atmospheres per EN ISO 6988, IEC/EN 60068-2-42, IEC/EN 60068-2-60
- Salt Spray Test per IEC/EN 60068-2-11; Marine Applications GL, LR, DNV
- Quick Change of Temperature per IEC/EN 60068-2-14
- Damp Heat, Cyclic (12 + 12 Hour Cycle) per IEC/EN 60068-2-30; Marine Applications GL, LR, DNV

Long-term consistency for the low contact resistance of both CAGE CLAMP® and Push-in CAGE CLAMP® results from **gas-tight** clamping units. The spring clamp (acid- and saltwater-proof CrNi spring steel) presses the connected conductor against the current bar (electrolyte copper with lead-free, pure tin coating) within a defined contact zone. The conductor is embedded into the soft tin layer with high contact pressure, securing it against corrosive infiltration.

Contact pressure

$$P\left[\frac{N}{mm^2}\right] = \frac{\text{Force F [N]}}{\text{Area A [mm}^2\text{]}}$$

Numerical example

$$\left[\frac{700\ N}{4\ mm^2}\right] = \left[\frac{70\ N}{0.4\ mm^2}\right]$$

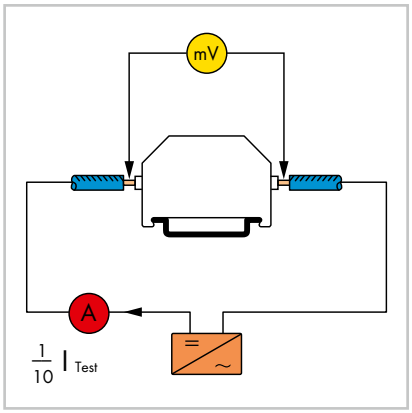
Screw Spring

The contact pressure exerted by CAGE CLAMP® connections is similar to screw connections.



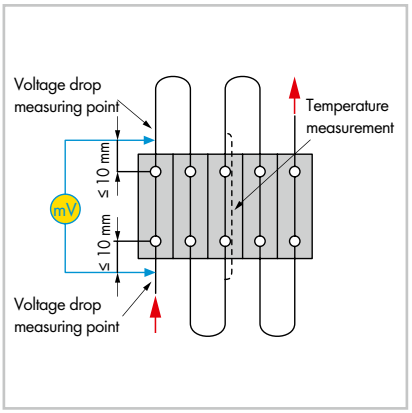
To best evaluate the quality of a clamping point, WAGO uses the following test procedures:

The **Voltage Drop Test** evaluates clamping unit quality under stresses such as vibrations, temperature changes and corrosive influences.



Test arrangement: "Voltage Drop Test"

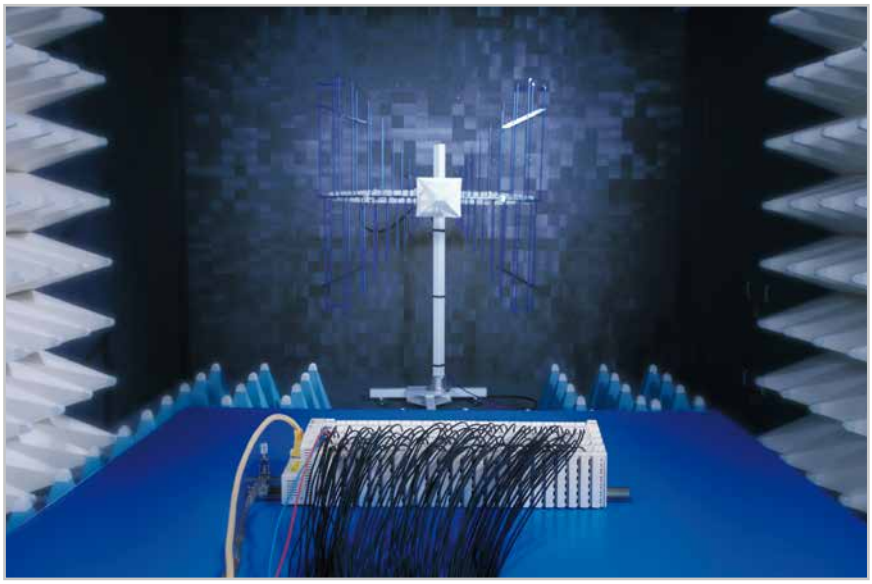
The **Temperature-Rise Test** examines the clamping unit, including the surrounding insulation, at rated current, over-current and short circuit current levels.



Test arrangement: "Temperature-Rise Test"

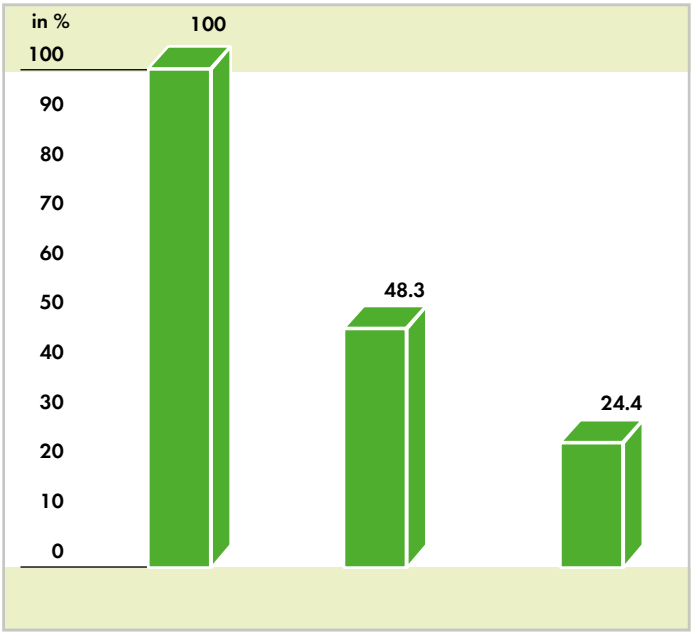
Electromagnetic Compatibility (EMC)

State-of-the-art testing equipment in our laboratory enables us to conduct the most stringent electrical, mechanical and climatic tests. In addition, our electromagnetic compatibility chamber is dedicated to testing our automation components for compliance with electromagnetic safety regulations.



To isolate and eliminate any weak points during development in our electromagnetic compatibility laboratory, we can use bursts of up to 3 kV.
All of our automation components have to meet stricter requirements than those defined in CE specifications and the requirements as specified by the international shipping classification organizations.

Time Saved



Screw connection

CAGE CLAMP® and Push-in CAGE CLAMP® terminate both solid conductors and ferruled conductors.

Push-in CAGE CLAMP® (front-entry wiring) terminates both solid and ferruled conductors **by simply pushing them in**.

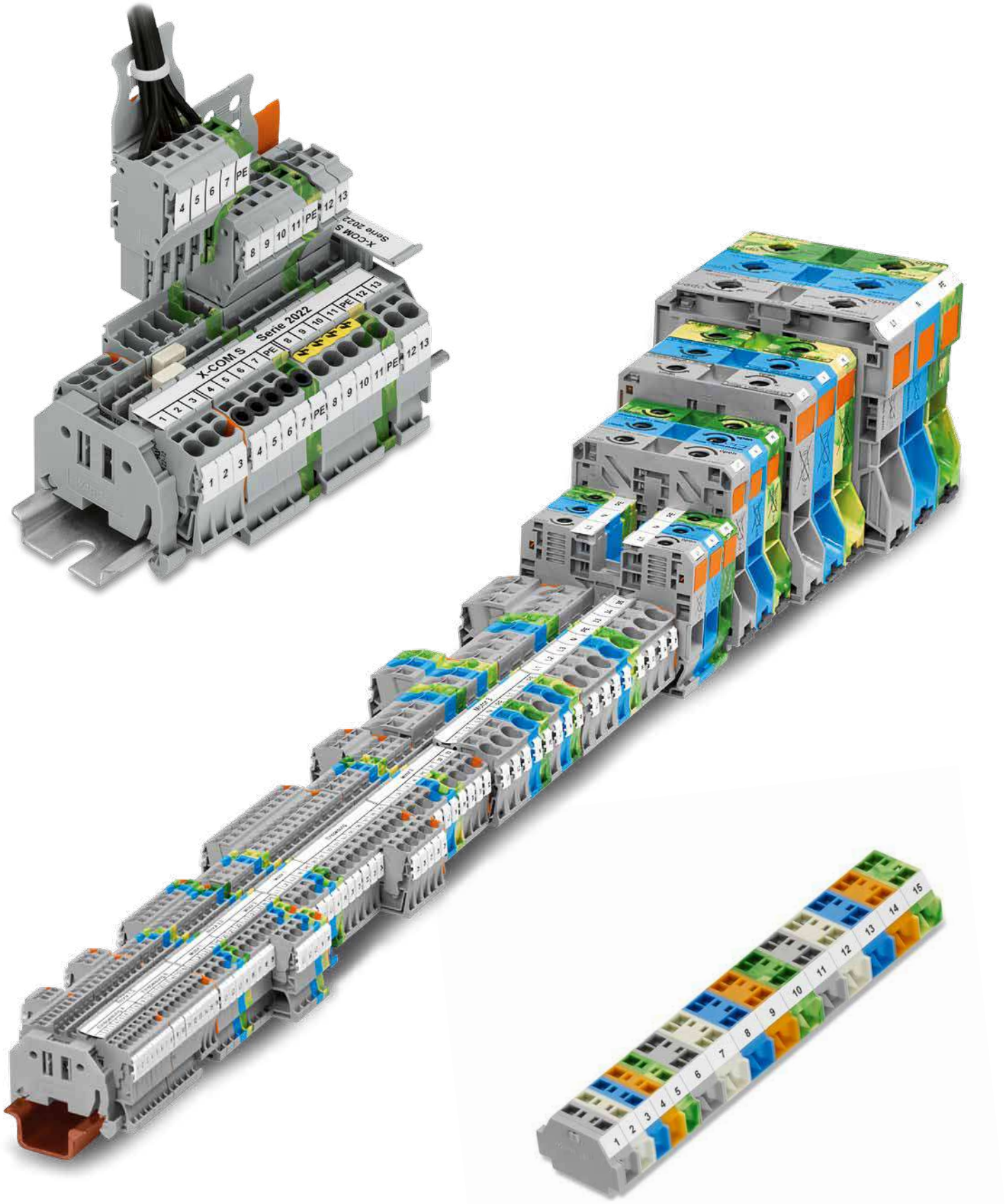
Average manual wiring times in a percentage comparison (per MTM)

CAGE CLAMP® technology **significantly reduces wiring times**, which helps minimize labor costs.

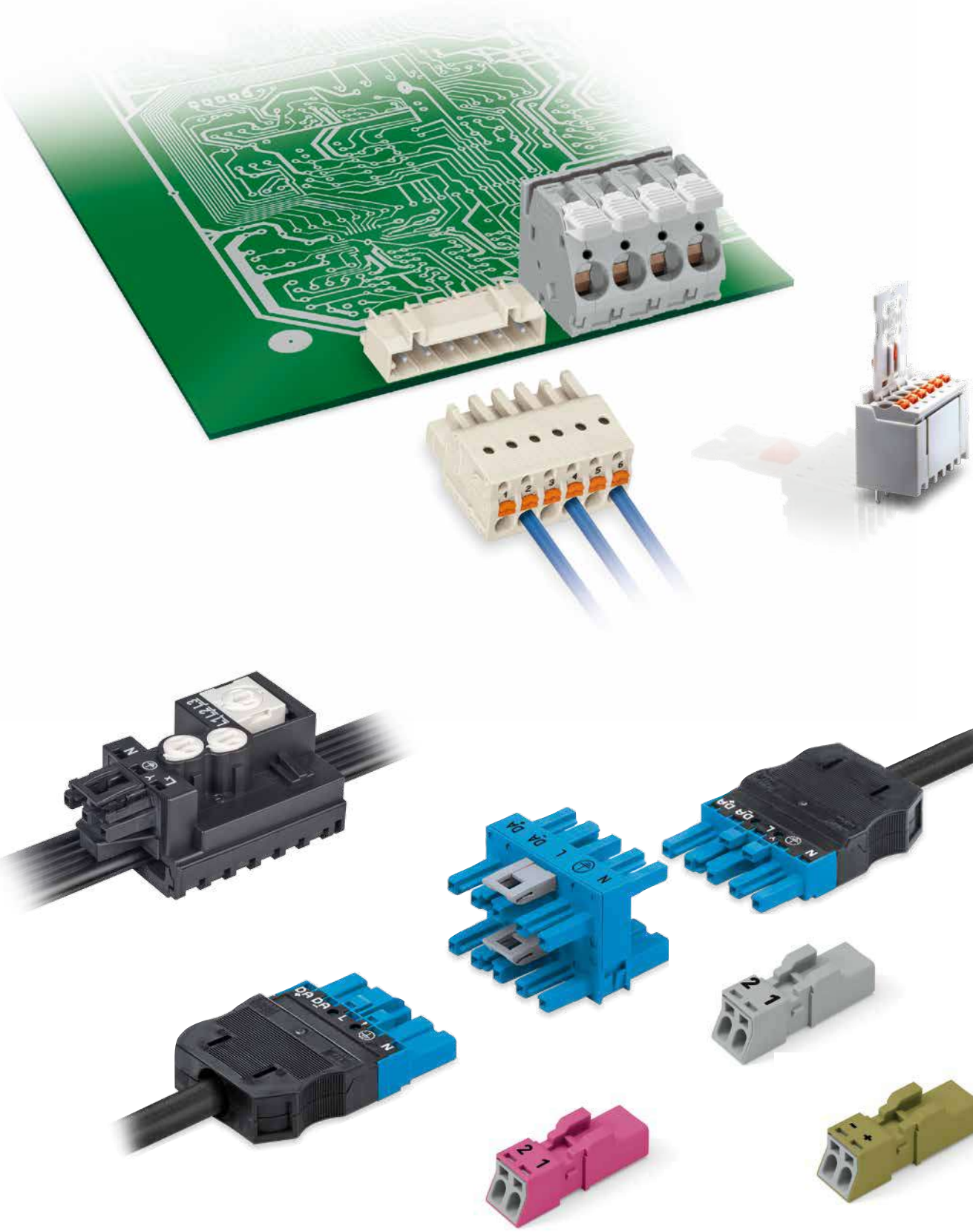
Additional savings are provided via faster project commissioning **and** the elimination of service costs **due to maintenance-free connections.**

Savings go further by **reducing both material and labor costs** through eliminating the need to prepare ferrules or pin terminals prior to termination. Front-entry terminal blocks are specified for top-tier designs because they minimize both install time and effort.

Rail-Mounted Terminal Block Systems



PCB Terminal Blocks and Connectors
WINSTA® – The Pluggable Connection System



TOPJOB® S Rail-Mounted Terminal Blocks – Description and Installation –

Conductor termination/removal



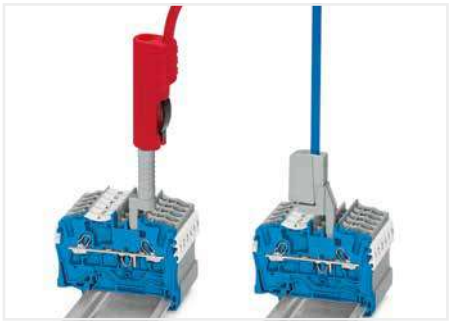
Push-in termination: Solid conductors ranging from at least two sizes below to one size above the rated cross-section can be inserted directly – without tools.



Connecting fine-stranded conductors without ferrules, or small cross-sectional conductors that cannot be pushed in, is performed similarly to the original CAGE CLAMP® – just use a screwdriver.

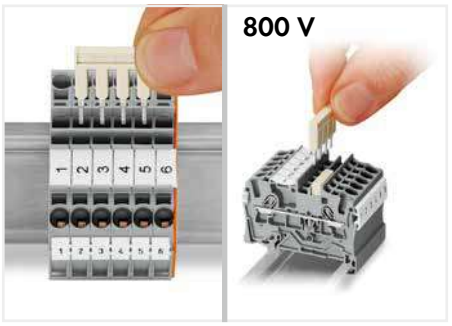
Conductor removal is performed with a screwdriver, just like CAGE CLAMP®.

Testing



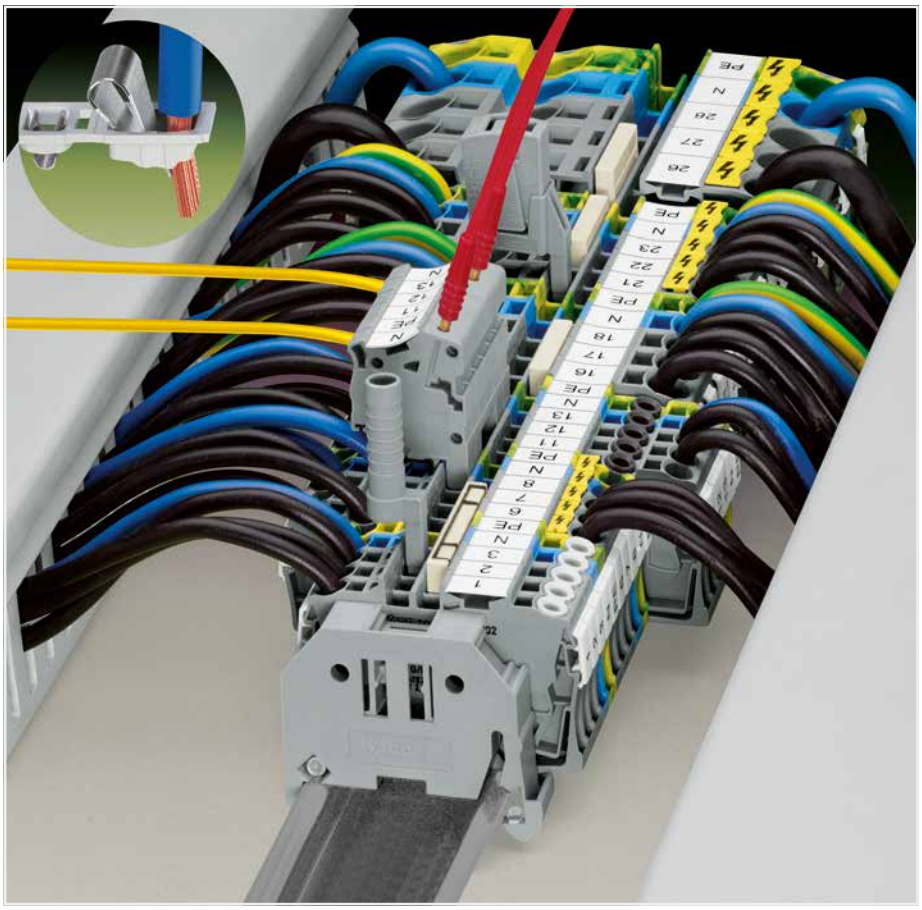
Testing TOPJOB® S Rail-Mounted Terminal Blocks via Test Plug Adapter or Testing Tap

Commoning

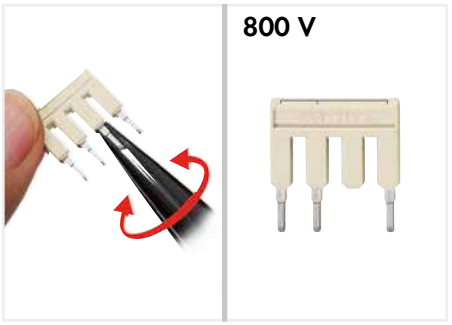


Twin integrated, spring-loaded jumper system allows use of comb-style jumper bars, test plugs and connectors.

Jumper bars rated at 800 V (ex works)



Commoning

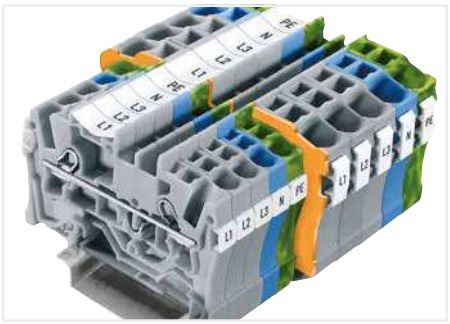


Jumper contacts that are not required can be broken off and removed, the upper-side of the jumper can then be marked accordingly. Applies to 2001, 2002 and 2004 Series.

Marking

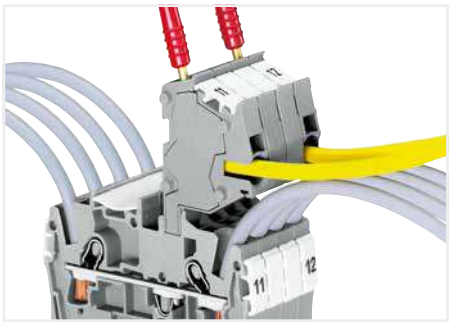


Both WAGO "***smart***DESIGNER" Software and Thermal Transfer Printer generate the marking.



TOPJOB® S offers three marking positions for WMB or miniature WSB markers, as well as centered full-length marking strips.

Pre-assembled connectors



Pre-assembled connectors with Push-in CAGE CLAMP® connection provide an additional connection option.

For information on Push-in CAGE CLAMP® connection, see page 14.

TOPJOB® S
Rail-Mounted Terminal Blocks 1.0 (1.5) mm²
2000 Series

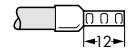
PUSH-IN CAGE CLAMP®

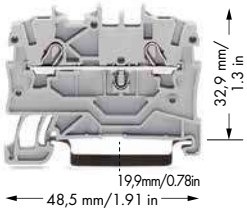
0.14 … 1.0 (1.5) mm² ❶ | **24 … 16 AWG**
800 V/6 kV/3 | **600 V, 10 A**
I_N 13.5 A (18 A) | **600 V, 10 A**
Terminal block width: 3.5 mm / 0.138 in.
9 … 11 mm / 0.39 in.
❷ **Approvals**

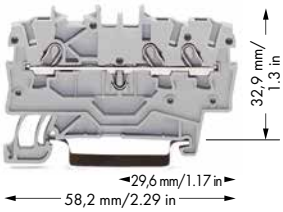
0.14 … 1.0 (1.5) mm² ❶ | **24 … 16 AWG**
800 V/6 kV/3 | **600 V, 10 A**
I_N 13.5 A (18 A) | **600 V, 10 A**
Terminal block width: 3.5 mm / 0.138 in.
9 … 11 mm / 0.39 in.
❷ **Approvals**

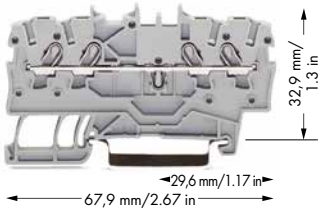
0.14 … 1.0 (1.5) mm² ❶ | **24 … 16 AWG**
800 V/6 kV/3 | **600 V, 10 A**
I_N 13.5 A (18 A) | **600 V, 10 A**
Terminal block width: 3.5 mm / 0.138 in.
9 … 11 mm / 0.39 in.
❷ **Approvals**

❶ Conductor range: 0.14 … 1.5 mm² "s+f-st"
Push-in termination: 0.5 … 1.5 mm² "s" and 0.5 … 1 mm² "insulated ferrule, 12 mm"









Color	Item No.	Pack. Unit
2-conductor through terminal block		
gray (Ex)	**2000-1201**	100
blue (Ex)	**2000-1204** ❸	100
orange (Ex)	**2000-1202**	100
red (Ex)	**2000-1203**	100
black (Ex)	**2000-1205**	100
yellow (Ex)	**2000-1206**	100
2-conductor ground terminal block		
green-yellow (Ex)	**2000-1207**	100

Color	Item No.	Pack. Unit
3-conductor through terminal block		
gray (Ex)	**2000-1301**	100
blue (Ex)	**2000-1304** ❸	100
orange (Ex)	**2000-1302**	100
red (Ex)	**2000-1303**	100
black (Ex)	**2000-1305**	100
yellow (Ex)	**2000-1306**	100
3-conductor ground terminal block		
green-yellow (Ex)	**2000-1307**	100

Color	Item No.	Pack. Unit
4-conductor through terminal block		
gray (Ex)	**2000-1401**	100
blue (Ex)	**2000-1404** ❸	100
orange (Ex)	**2000-1402**	100
red (Ex)	**2000-1403**	100
black (Ex)	**2000-1405**	100
yellow (Ex)	**2000-1406**	100
4-conductor ground terminal block		
green-yellow (Ex)	**2000-1407**	100
Double potential terminal block		
gray	**2000-2141**	50

Item-Specific Accessories

End and intermediate plate, 0.7 mm thick



2000-1292 100 (4x25)
2000-1291 100 (4x25)

End and intermediate plate, 0.7 mm thick



2000-1392 100 (4x25)
2000-1391 100 (4x25)

End and intermediate plate, 0.7 mm thick



2000-1492 100 (4x25)
2000-1491 100 (4x25)

Accessories, 2000 Series

Appropriate marking systems: **WMB/Marking Strips/WMB Inline**

Push-in type jumper bar, insulated,



I_N 14 A, light gray

2-way	**2000-402**	200 (8x25)
3-way	**2000-403**	200 (8x25)
4-way	**2000-404**	200 (8x25)
:	:	
10-way	**2000-410**	100 (4x25)

. . ./**000-005** . . ./**000-006**

Push-in type jumper bar, insulated,



I_N 14 A, light gray

1 to 3	**2000-433**	200 (8x25)
1 to 4	**2000-434**	200 (8x25)
1 to 5	**2000-435**	100 (4x25)
:	:	
1 to 10	**2000-440**	100 (4x25)

Star point jumper, insulated,



I_N = I_N terminal block, light gray
1-3-5 **2000-405/011-000**
100 (4x25)

Protective warning marker, with high-voltage symbol,



for 5 terminal blocks
2000-115 100 (4x25)

WMB Multi marking system, plain,

10 strips with 10 markers per card
for 3.5 mm terminal block width,
white **793-3501** 5

WMB Inline, plain,



3.5 mm,
2,300 WMB markers per roll
2009-113 1

Delta jumper, insulated,



I_N = I_N terminal block, light gray
1-2 3-4 5-6 **2000-406/020-000**
100 (4x25)

Marking strips, plain



11 mm wide,
50 m roll
2009-110 1

Operating tool with a partially insulated shaft,



type 1, (2.5 x 0.4) mm blade
210-719 1

Test plug adapter, for 4 mm Ø test plug



2009-174 100 (4x25)

Insulated ferrules, extra long,



for TOPJOB® S terminal blocks,
see page 259

Testing tap, for max. 2.5 mm²



2009-182 100 (4x25)

❸ Suitable for Ex i applications
(Ex) Suitable for Ex e II applications
550 V, 22 A

❷ For all approvals and corresponding ratings, visit www.wago.com.

For technical information and abbreviations, see technical section.

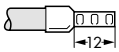
TOPJOB® S
Through/Ground/Shield Conductor and Ex Terminal Blocks 1.5 (2.5) mm²
2001 Series

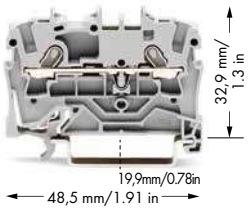
0.25 … 1.5 (2.5) mm² ❶ | **22 … 14 AWG**
800 V/8 kV/3 | **600 V, 10 A**
I_N 18 A (24 A) | **600 V, 10 A**
Terminal block width: 4.2 mm / 0.165 in.
9 … 11 mm / 0.39 in.
❷ **Approvals**

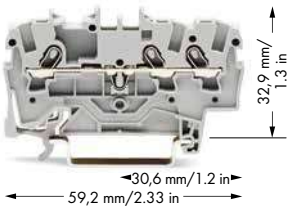
0.25 … 1.5 (2.5) mm² ❶ | **22 … 14 AWG**
800 V/8 kV/3 | **600 V, 10 A**
I_N 18 A (24 A) | **600 V, 10 A**
Terminal block width: 4.2 mm / 0.165 in.
9 … 11 mm / 0.39 in.
❷ **Approvals**

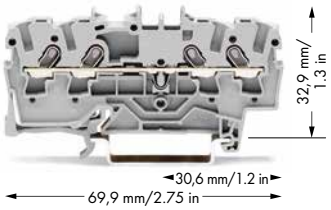
0.25 … 1.5 (2.5) mm² ❶ | **22 … 14 AWG**
800 V/8 kV/3 | **600 V, 10 A**
I_N 18 A (24 A) | **600 V, 10 A**
Terminal block width: 4.2 mm / 0.165 in.
9 … 11 mm / 0.39 in.
❷ **Approvals**

❶ Conductor range: 0.25 … 2.5 mm² "s+f-st"
Push-in termination: 0.5 … 2.5 mm² "s" and 0.75 … 1.5 mm² "insulated ferrule, 12 mm"









Color	Item No.	Pack. Unit
2-conductor through terminal block		
gray (Ex)	**2001-1201**	100
blue (Ex)	**2001-1204** ❸	100
orange (Ex)	**2001-1202**	100
red (Ex)	**2001-1203**	100
black (Ex)	**2001-1205**	100
yellow (Ex)	**2001-1206**	100
2-conductor ground terminal block		
green-yellow (Ex)	**2001-1207**	100
2-cond. shield conductor terminal block		
white	**2001-1208**	100
Other terminal blocks with the same profile:		
Diode	**2001-1211/1000-411** ❹	

Color	Item No.	Pack. Unit
3-conductor through terminal block		
gray (Ex)	**2001-1301**	100
blue (Ex)	**2001-1304** ❸	100
orange (Ex)	**2001-1302**	100
red (Ex)	**2001-1303**	100
black (Ex)	**2001-1305**	100
yellow (Ex)	**2001-1306**	100
3-conductor ground terminal block		
green-yellow (Ex)	**2001-1307**	100
3-cond. shield conductor terminal block		
white	**2001-1308**	100
Other terminal blocks with the same profile:		
Diode	**2001-1311/1000-411** ❹	
LED	**2001-1321/1000-434** ❹	

Color	Item No.	Pack. Unit
4-conductor through terminal block		
gray (Ex)	**2001-1401**	100
blue (Ex)	**2001-1404** ❸	100
orange (Ex)	**2001-1402**	100
red (Ex)	**2001-1403**	100
black (Ex)	**2001-1405**	100
yellow (Ex)	**2001-1406**	100
4-conductor ground terminal block		
green-yellow (Ex)	**2001-1407**	100
4-cond. shield conductor terminal block		
white	**2001-1408**	100
Other terminal blocks with the same profile:		
Diode	**2001-1411/1000-411** ❹	
Diode	**2001-1411/1000-434** ❹	
Double-potential	**2001-1441** ❹	

Item-Specific Accessories

Separator for Ex e/Ex i applications, see page 30

End and intermediate plate, 0.8 mm thick

orange **2002-1292** 100 (4x25)
gray **2002-1291** 100 (4x25)

End and intermediate plate, 0.8 mm thick

orange **2002-1392** 100 (4x25)
gray **2002-1391** 100 (4x25)

End and intermediate plate, 0.8 mm thick

orange **2002-1492** 100 (4x25)
gray **2002-1491** 100 (4x25)

Separator, oversized, 0.8 mm thick

orange **2002-1294** 100 (4x25)
gray **2002-1293** 100 (4x25)

Separator, oversized, 0.8 mm thick

orange **2002-1394** 100 (4x25)
gray **2002-1393** 100 (4x25)

Separator, oversized, 0.8 mm thick

orange **2002-1494** 100 (4x25)
gray **2002-1493** 100 (4x25)

Accessories, 2001 Series

Appropriate marking systems: **WMB/Marking Strips**

Push-in type jumper bar, insulated,

I_N 18 A, light gray
2-way **2001-402** 200 (8x25)
3-way **2001-403** 200 (8x25)
4-way **2001-404** 200 (8x25)
: :
10-way **2001-410** 100 (4x25)

Push-in type jumper bar, insulated,

I_N 18 A, light gray
1 to 3 **2001-433** 200 (8x25)
1 to 4 **2001-434** 200 (8x25)
1 to 5 **2001-435** 100 (4x25)
: :
1 to 10 **2001-440** 100 (4x25)

Push-in type wire jumper, insulated,

I_N 16 A,
1.5 mm² conductor size
60 mm **2009-412** 100 (10x10)
110 mm **2009-414** 100 (10x10)
250 mm **2009-416** 100 (10x10)

Insulation stop,

5 pcs/strip
2001-171 0.25-0.5 mm²
200 (8x25)

Protective warning marker, with high-voltage symbol,

for 5 terminal blocks
2001-115 100 (4x25)

Star point jumper, insulated,

I_N = I_N terminal block, light gray
1-3-5 **2001-405/011-000**
100 (4x25)

Modular TOPJOB® S connector, can be snapped together,

I_N 18 A, for jumper contact slot
2001-511 100 (4x25)

Spacer module, can be snapped together
2001-549 100 (4x25)

WMB Multi marking system, plain,

10 strips with 10 markers per card,
stretchable from 4 … 4.2 mm
793-4501 5

Operating tool with a partially insulated shaft,

type 1, (2.5 x 0.4) mm blade
210-719 1

Marking strip, plain,

11 mm wide,
50 m roll
2009-110 1

❸ Suitable for Ex i applications
(Ex) Suitable for Ex e II applications
550 V, 17 A

Insulated ferrules, extra long,

for TOPJOB® S terminal blocks,
see page 259

❷ For all approvals and corresponding ratings, visit www.wago.com. For technical information and abbreviations, see technical section.
❹ See Full Line Catalog or visit www.wago.com.

TOPJOB® S
Through/Ground/Shield Conductor and Ex Terminal Blocks 2.5 (4) mm²
2002 Series

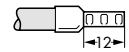
PUSH-IN CAGE CLAMP®

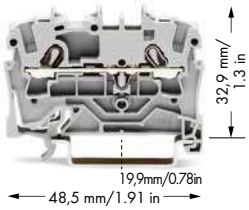
0.25 … 2.5 (4) mm² ❶ | **22 … 12 AWG**
800 V/8 kV/3 | **600 V, 20 A**
I_N 24 A (32 A) | **600 V, 20 A**
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❷ Approvals

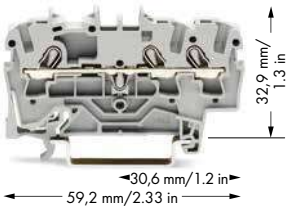
0.25 … 2.5 (4) mm² ❶ | **22 … 12 AWG**
800 V/8 kV/3 | **600 V, 20 A**
I_N 24 A (32 A) | **600 V, 20 A**
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❷ Approvals

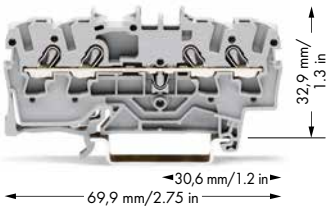
0.25 … 2.5 (4) mm² ❶ | **22 … 12 AWG**
800 V/8 kV/3 | **600 V, 20 A**
I_N 24 A (32 A) | **600 V, 20 A**
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❷ Approvals

❶ Conductor range: 0.25 … 4 mm2 "s+f-st"
Push-in termination: 0.75 … 4 mm2 "s" and
0.75 … 2.5 mm2 "insulated ferrule, 12 mm"









Color	Item No.	Pack. Unit
2-conductor through terminal block		
gray Ex	**2002-1201**	100
blue Ex	**2002-1204 ❸**	100
orange Ex	**2002-1202**	100
red Ex	**2002-1203**	100
black Ex	**2002-1205**	100
yellow Ex	**2002-1206**	100
2-conductor ground terminal block		
green-yellow Ex	**2002-1207**	100
2-cond. shield conductor terminal block		
white	**2002-1208**	100
Other terminal blocks with the same profile:		
Diode	**2002-1211/1000-411**	Page 60

Color	Item No.	Pack. Unit
3-conductor through terminal block		
gray Ex	**2002-1301**	100
blue Ex	**2002-1304 ❸**	100
orange Ex	**2002-1302**	100
red Ex	**2002-1303**	100
black Ex	**2002-1305**	100
yellow Ex	**2002-1306**	100
3-conductor ground terminal block		
green-yellow Ex	**2002-1307**	100
3-cond. shield conductor terminal block		
white	**2002-1308**	100
Other terminal blocks with the same profile:		
Diode	**2002-1311/1000-411**	Page 60
LED	**2002-1321/1000-434**	Page 60

Color	Item No.	Pack. Unit
4-conductor through terminal block		
gray Ex	**2002-1401**	100
blue Ex	**2002-1404 ❸**	100
orange Ex	**2002-1402**	100
red Ex	**2002-1403**	100
black Ex	**2002-1405**	100
yellow Ex	**2002-1406**	100
4-conductor ground terminal block		
green-yellow Ex	**2002-1407**	100
4-cond. shield conductor terminal block		
white	**2002-1408**	100
Other terminal blocks with the same profile:		
Diode	**2002-1411/1000-411**	Page 60
Diode	**2002-1411/1000-434**	Page 60
Double-potential	**2002-1441 ❹**	

Item-Specific Accessories

Separator for Ex e/Ex i applications, see page 30

End and intermediate plate, 0.8 mm thick



	2002-1292	100 (4x25)
	2002-1291	100 (4x25)

End and intermediate plate, 0.8 mm thick



	2002-1392	100 (4x25)
	2002-1391	100 (4x25)

End and intermediate plate, 0.8 mm thick



	2002-1492	100 (4x25)
	2002-1491	100 (4x25)

Separator, oversized, 0.8 mm thick



	2002-1294	100 (4x25)
	2002-1293	100 (4x25)

Separator, oversized, 0.8 mm thick



	2002-1394	100 (4x25)
	2002-1393	100 (4x25)

Separator, oversized, 0.8 mm thick



	2002-1494	100 (4x25)
	2002-1493	100 (4x25)

Accessories, 2002 Series

Appropriate marking systems: **WMB/Marking Strips/WMB Inline/Miniature WSB**

Adjacent jumper for continuous commoning,
insulated, I_N 25 A, **light gray**

2-way	**2002-400**	100 (4x25)
1 to 3	**2002-423**	100 (4x25)

Push-in type jumper bar, insulated,
I_N 25 A, light gray



2-way	**2002-402**	200 (8x25)
3-way	**2002-403**	200 (8x25)
4-way	**2002-404**	200 (8x25)
:	:	
10-way	**2002-410**	100 (4x25)

. . ./**000-005** . . ./**000-006**

Push-in type wire jumper, insulated,
I_N 16 A,
1.5 mm² conductor size



60 mm	**2009-412**	100 (10x10)
110 mm	**2009-414**	100 (10x10)
250 mm	**2009-416**	100 (10x10)

WMB Multi marking system, plain,
10 strips with 10 markers per card,
stretchable from 5 … 5.2 mm

	793-5501	5

Push-in type jumper bar, insulated,



I_N 25 A, light gray

1 to 3	**2002-433**	200 (8x25)
:	:	
1 to 10	**2002-440**	100 (4x25)

Insulation stop, 5 pcs/strip



	2002-171	0.25–0.5 mm²
	2002-172	0.75–1 mm²
		200 (8x25)

Protective warning marker, with high-voltage symbol,



for 5 terminal blocks

	2002-115	100 (4x25)

Operating tool with a partially insulated shaft,



type 2, (3.5 x 0.5) mm blade

	210-720	1

❸ Suitable for Ex i applications
Ex Suitable for Ex e II applications
550 V, 22 A

Staggered jumper, insulated,



I_N 25 A, light gray

2-way	**2002-472**	100 (4x25)
3-way	**2002-473**	100 (4x25)
4-way	**2002-474**	100 (4x25)
:	:	
12-way	**2002-482**	50 (2x25)

Star point jumper, insulated,



I_N = I_N terminal block, light gray

1–3–5	**2002-405/011-000**	100 (4x25)

Delta jumper, insulated,



I_N = I_N terminal block, light gray

1-2 3-4 5-6	**2004-406/020-000**	100 (4x25

Modular TOPJOB® S L-test plug, can be snapped together, I_N 18 A, for conductor entry



	2002-611	100 (4x25)

Spacer module, can be snapped together

	2002-649	100 (4x25)

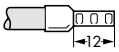
Please find the entire product range in our Full Line Catalog. For additional information, visit www.wago.com. ❹ See Full Line Catalog or visit www.wago.com.

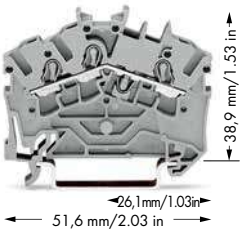
TOPJOB® S
Through/Ground/Shield Conductor and Ex Terminal Blocks 2.5 (4) mm²
2002 Series

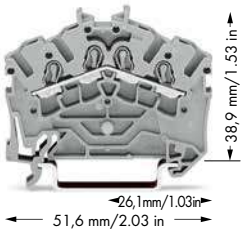
0.25 … 2.5 (4) mm² ❶ | **22 … 12 AWG**
800 V/8 kV/3 | **600 V, 20 A**
I_N 24 A (32 A) | **600 V, 20 A**
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❷ **Approvals**

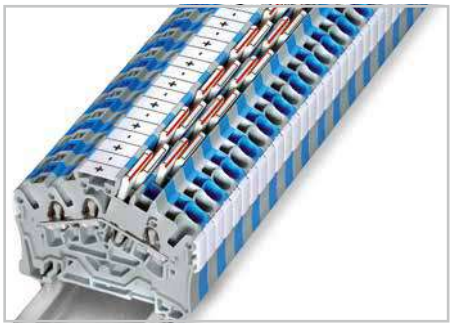
0.25 … 2.5 (4) mm² ❶ | **22 … 12 AWG**
800 V/8 kV/3 | **600 V, 20 A**
I_N 24 A (32 A) | **600 V, 20 A**
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❷ **Approvals**

❶ Conductor range: 0.25 … 4 mm2 “s+f-st”
Push-in termination: 0.75 … 4 mm2 “s”
and 0.75 … 2.5 mm2 “insulated ferrule, 12 mm”









3- and 4-conductor terminal blocks

WAGO’s TOPJOB® S Rail-Mounted Terminal Blocks have a 35-degree conductor entry angle permitting a very small bend radius and an extremely short wiring distance to the cable duct. Space- and cost-saving solutions for switchgear and control cabinet applications that use the LSC wiring system from Lütze. The design allows cable duct to be placed very close to the terminal blocks, keeping its height relatively low.

An end plate must be applied when changing from a 3-conductor terminal block to a 4-conductor terminal block and vice versa.

Color	Item No.	Pack. Unit
3-conductor through terminal block		
gray (Ex)	**2002-6301**	100
blue (Ex)	**2002-6304** ❸	100
orange (Ex)	**2002-6302**	100
Additional colors will be available soon.		
3-conductor ground terminal block		
green-yellow (Ex)	**2002-6307**	100
3-cond. shield conductor terminal block		
white	**2002-6308**	100

Color	Item No.	Pack. Unit
4-conductor through terminal block		
gray (Ex)	**2002-6401**	100
blue (Ex)	**2002-6404** ❸	100
orange (Ex)	**2002-6402**	100
Additional colors will be available soon.		
4-conductor ground terminal block		
green-yellow (Ex)	**2002-6407**	100
Notice: These terminal blocks cannot be commoned.		

Item-Specific Accessories

End and intermediate plate, 0.8 mm thick



orange	**2002-6392**	100 (4x25)
gray	**2002-6391**	100 (4x25)

End and intermediate plate, 0.8 mm thick



orange	**2002-6392**	100 (4x25)
gray	**2002-6391**	100 (4x25)

Accessories, 2002 Series

Appropriate marking systems:
WMB/Marking Strips/WMB Inline/Miniature WSB

Adjacent jumper for continuous commoning,
insulated, I_N 25 A, light gray

2-way	**2002-400**	100 (4x25)
1 to 3	**2002-423**	100 (4x25)

Push-in type jumper bar, insulated,
I_N 25 A, light gray



2-way	**2002-402**	200 (8x25)
:	:	
10-way	**2002-410**	100 (4x25)

. . ./**000-005** . . ./**000-006**

Push-in type jumper bar, insulated, I_N 25 A, light gray



1 … 3	**2002-433**	200 (8x25)
:	:	
1 … 10	**2002-440**	100 (4x25)

Staggered jumper, insulated,
I_N 25 A, light gray



2-way	**2002-472**	100 (4x25)
3-way	**2002-473**	100 (4x25)
4-way	**2002-474**	100 (4x25)
5-way	**2002-475**	50 (2x25)
:	:	
12-way	**2002-482**	50 (2x25)

Modular TOPJOB® S connector, can be snapped together,
I_N 24 A, for jumper contact slot



gray	**2002-511**	100 (4x25)

Spacer module, can be snapped together

gray	**2002-549**	100 (4x25)

Operating tool with a partially insulated shaft,
type 2, (3.5 x 0.5) mm blade



210-720	1

Insulation stop, 5 pcs/strip



gray	**2002-171**	0.25–0.5 mm²
gray	**2002-172**	0.75–1 mm²
		200 (8x25)

Protective warning marker, with high-voltage symbol,
for 5 terminal blocks



yellow	**2002-115**	100 (4x25)

Test plug adapter, for 4 mm Ø test plug



gray	**2009-174**	100 (4x25)

Testing tap, for max. 2.5 mm²

gray	**2009-182**	100 (4x25)

Banana plugs, only for safety extra-low voltage (42 V)



red	**215-212**	50
black	**215-311**	50

For additional colors, see page 262.

Insulated ferrules, extra long,
for TOPJOB® S terminal blocks
(see page 259)



Operating tool,
3.5 mm and 2.5 mm blades



2009-309	1

❸ Suitable for Ex i applications
(Ex) Suitable for Ex e II applications
550 V, 22 A

Through Terminal Block Accessories, 2001 … 2006 Series

Diode module,



I_N 1 A, 10.4 mm wide, gray
2002-880/1000-411
50

LED module, with red LED,



I_N ≤ 3 mA, 10.4 mm wide, gray
12 … 30 V **2002-880/1000-541**
50

LED module, with red LED,

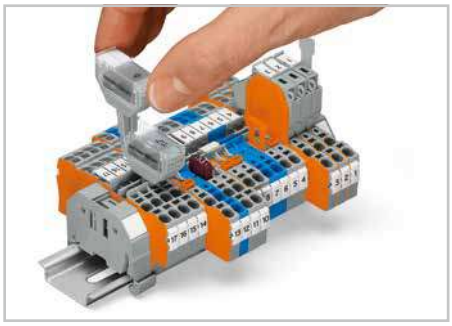


I_N ≤ 3 mA, 10.4 mm wide, gray
30 … 65 V **2002-880/1000-542**
50

LED module, with red LED,



I_N ≤ 3 mA, 10.4 mm wide, gray
230 V **2002-880/1000-836**
50



Plugging a diode module into a through terminal block.

For empty component plug housings, see page 236.

❷ For all approvals and corresponding ratings, visit www.wago.com.

For technical information and abbreviations, see “Technical Section.”

PUSH-IN CAGE CLAMP®

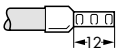
TOPJOB® S
Through/Ground/Shield Conductor and Ex Terminal Blocks 4 (6) mm²
2004 Series

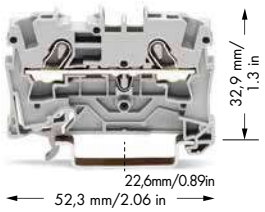
0.5 … 4 (6) mm² ❶ | **20 … 10 AWG**
800 V/8 kV/3 | **600 V, 30 A**
I_N 32 A (41 A) | **600 V, 30 A**
Terminal block width: 6.2 mm / 0.244 in.
11 … 13 mm / 0.47 in.
❷ Approvals

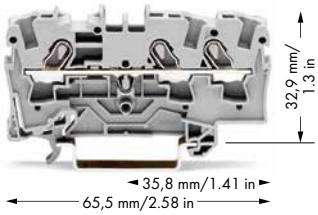
0.5 … 4 (6) mm² ❶ | **20 … 10 AWG**
800 V/8 kV/3 | **600 V, 30 A**
I_N 32 A (41 A) | **600 V, 30 A**
Terminal block width: 6.2 mm / 0.244 in.
11 … 13 mm / 0.47 in.
❷ Approvals

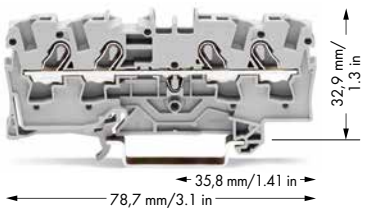
0.5 … 4 (6) mm² ❶ | **20 … 10 AWG**
800 V/8 kV/3 | **600 V, 30 A**
I_N 32 A (41 A) | **600 V, 30 A**
Terminal block width: 6.2 mm / 0.244 in.
11 … 13 mm / 0.47 in.
❷ Approvals

❶ Conductor range: 0.5 … 6 mm² "s+f-st"
Push-in termination: 1 … 6 mm² "s" and
0.75 … 4 mm² "insulated ferrule, 12 mm"









Color	Item No.	Pack. Unit
2-conductor through terminal block		
gray Ⓔx	**2004-1201**	100
blue Ⓔx	**2004-1204 ❸**	100
orange Ⓔx	**2004-1202**	100
red Ⓔx	**2004-1203**	100
black Ⓔx	**2004-1205**	100
yellow Ⓔx	**2004-1206**	100
2-conductor ground terminal block		
green-yellow Ⓔx	**2004-1207**	100
2-cond. shield conductor terminal block		
white	**2004-1208**	100

Color	Item No.	Pack. Unit
3-conductor through terminal block		
gray Ⓔx	**2004-1301**	100
blue Ⓔx	**2004-1304 ❸**	100
orange Ⓔx	**2004-1302**	100
red Ⓔx	**2004-1303**	100
black Ⓔx	**2004-1305**	100
yellow Ⓔx	**2004-1306**	100
3-conductor ground terminal block		
green-yellow Ⓔx	**2004-1307**	100
3-cond. shield conductor terminal block		
white	**2004-1308**	100

Color	Item No.	Pack. Unit
4-conductor through terminal block		
gray Ⓔx	**2004-1401**	100
blue Ⓔx	**2004-1404 ❸**	100
orange Ⓔx	**2004-1402**	100
red Ⓔx	**2004-1403**	100
black Ⓔx	**2004-1405**	100
yellow Ⓔx	**2004-1406**	100
4-conductor ground terminal block		
green-yellow Ⓔx	**2004-1407**	100
4-cond. shield conductor terminal block		
white	**2004-1408**	100

Item-Specific Accessories

Separator for Ex e/Ex i applications, see page 30

End and intermediate plate, 1 mm thick



orange	**2004-1292**	100 (4x25)
gray	**2004-1291**	100 (4x25)

End and intermediate plate, 1 mm thick



orange	**2004-1392**	100 (4x25)
gray	**2004-1391**	100 (4x25)

End and intermediate plate, 1 mm thick



orange	**2004-1492**	100 (4x25)
gray	**2004-1491**	100 (4x25)

Separator, oversized, 0.8 mm thick



orange	**2004-1294**	100 (4x25)
gray	**2004-1293**	100 (4x25)

Separator, oversized, 0.8 mm thick



orange	**2004-1394**	100 (4x25)
gray	**2004-1393**	100 (4x25)

Separator, oversized, 0.8 mm thick



orange	**2004-1494**	100 (4x25)
gray	**2004-1493**	100 (4x25)

Accessories, 2004 Series

Appropriate marking systems: **WMB/Marking Strips/WMB Inline/Miniature WSB**

Push-in type jumper bar, insulated,



I_N 32 A, light gray

2-way	**2004-402**	200 (8x25)
3-way	**2004-403**	200 (8x25)
4-way	**2004-404**	100 (4x25)
:	:	
10-way	**2004-410**	100 (4x25)

Push-in type jumper bar, insulated,



I_N 32 A, light gray

1 to 3	**2004-433**	200 (8x25)
1 to 4	**2004-434**	200 (8x25)
1 to 5	**2004-435**	100 (4x25)
:	:	
1 to 10	**2004-440**	100 (4x25)

Delta jumper, insulated,



I_N = I_N terminal block, light gray

1-2 3-4 5-6	**2004-406/020-000**
	100 (4x25)

Star point jumper, insulated,



I_N = I_N terminal block, light gray

1-3-5	**2004-405/011-000**
	100 (4x25)

Insulation stop, 5 pcs/strip



○	**2004-171**	0.25–0.5 mm²
●	**2004-172**	0.75–1 mm²
		200 (8x25)

Protective warning marker, with high-voltage symbol,



for 5 terminal blocks

○	**2004-115**	100 (4x25)

Step-down jumper, insulated, 4 mm² to 1.5 mm²,



I_N 32 A, light gray

2006-499	50 (2x25)

WMB Multi marking system, plain,

10 strips with 10 markers per card, stretchable from 5 … 5.2 mm

○	**793-5501**	5

Operating tool with a partially insulated shaft,



type 2, (3.5 x 0.5) mm blade

210-720	1

Modular TOPJOB® S connector, can be snapped together,



I_N 32 A, for jumper contact slot

○	**2004-511**	100 (4x25)

Marking strip, plain,



11 mm wide,
50 m roll

○	**2009-110**	1

❸ Suitable for Ex i applications
Ⓔx Suitable for Ex e II applications
550 V, 30 A

Spacer module, can be snapped together

○	**2004-549**	100 (4x25)

Insulated ferrules, extra long,



for TOPJOB® S terminal blocks,
see page 259

Please find the entire product range in our Full Line Catalog. For additional information, visit www.wago.com.

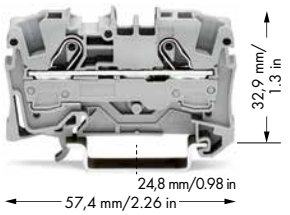
TOPJOB® S
Through/Ground/Shield Conductor and Ex Terminal Blocks 6 (10) mm²
2006 Series

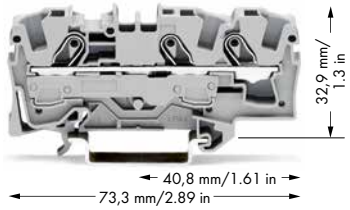
0.5 … 6 (10) mm² ❶ | **20 … 8 AWG**
800 V/8 kV/3 | **600 V, 50 A**
I_N 41 A (57 A) | **600 V, 50 A**
Terminal block width: 7.5 mm / 0.295 in.
13 … 15 mm / 0.55 in.
❷ **Approvals**

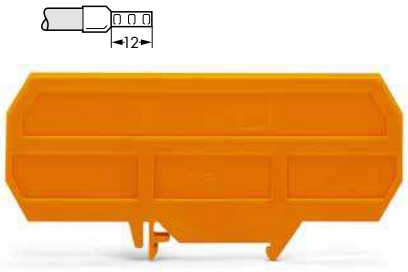
0.5 … 6 (10) mm² ❶ | **20 … 8 AWG**
800 V/8 kV/3 | **600 V, 50 A**
I_N 41 A (57 A) | **600 V, 50 A**
Terminal block width: 7.5 mm / 0.295 in.
13 … 15 mm / 0.55 in.
❷ **Approvals**

Separator for Ex e/Ex i applications

❶ Conductor range: 0.5 … 10 mm² "s+f-st"
Push-in termination: 1.5 … 10 mm² "s" and
1.5 … 6 mm² "insulated ferrule, 12 mm"







Color	Item No.	Pack. Unit
2-conductor through terminal block		
gray (Ex)	**2006-1201**	50
blue (Ex)	**2006-1204** ❸	50
orange (Ex)	**2006-1202**	50
2-conductor ground terminal block		
green-yellow (Ex)	**2006-1207**	50
2-cond. shield conductor terminal block		
white	**2006-1208**	50

Color	Item No.	Pack. Unit
3-conductor through terminal block		
gray (Ex)	**2006-1301**	25
blue (Ex)	**2006-1304** ❸	25
orange (Ex)	**2006-1302**	25
3-conductor ground terminal block		
green-yellow (Ex)	**2006-1307**	25

Color	Item No.	Pack. Unit
Separator for Ex e/Ex i applications, 3 mm thick, orange		
90 mm wide	**209-190**	50 (2x25)
120 mm wide	**209-191**	50 (2x25)
125,5 mm wide	**209-192**	50 (2x25)

Item-Specific Accessories

End and intermediate plate, 1 mm thick



	2006-1292	100 (4x25)
	2006-1291	100 (4x25)

End and intermediate plate, 1 mm thick



	2006-1392	100 (4x25)
	2006-1391	100 (4x25)

Accessories, 2006 Series

Appropriate marking systems: **WMB/Marking Strips/WMB Inline/Miniature WSB**

Push-in type jumper bar, insulated,



I_N 41 A, light gray

2-way	**2006-402**	50 (2x25)
3-way	**2006-403**	50 (2x25)
4-way	**2006-404**	50 (2x25)
5-way	**2006-405**	50 (2x25)

Star point jumper, insulated,



I_N = I_N terminal block, light gray

1-3-5	**2006-405/011-000**	50 (2x25)

Protective warning marker, with high-voltage symbol,



for 5 terminal blocks

	2006-115	100 (4x25)

Test plug adapter, for 4 mm Ø test plug



	2009-174	100 (4x25)

Testing tap, for max. 2.5 mm²

	2009-182	100 (4x25)

Modular TOPJOB® S connector, can be snapped together, I_N 32 A, for jumper contact slot



	2006-511	100 (4x25)

Spacer module, can be snapped together

	2006-549	100 (4x25)

Insulated ferrules, extra long,



for TOPJOB® S terminal blocks,
see page 259

Push-in type jumper bar, insulated,



I_N 41 A, light gray

1 to 3	**2006-433**	50 (2x25)
1 to 4	**2006-434**	50 (2x25)
1 to 5	**2006-435**	50 (2x25)

Step-down jumper, insulated,



I_N 32 A, light gray

	2006-499	50 (2x25)

Operating tool,



3.5 mm and 5.5 mm blades

	2009-310	1

Operating tool with a partially insulated shaft,



type 3, (5.5 x 0.8) mm blade

	210-721	1

Banana plugs, only for safety extra-low voltage (42 V)



	215-212	50
	215-311	50

For additional colors, see page 262.

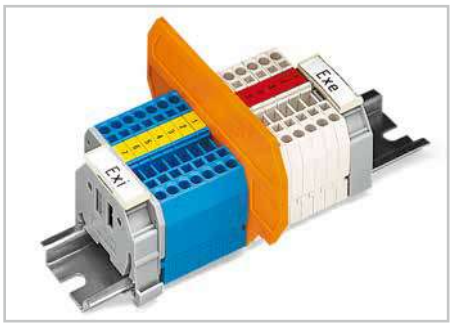
Marking strip, plain,



11 mm wide, 50 m roll

	2009-110	1

❸ Suitable for Ex i applications
(Ex) Suitable for Ex e II applications
550 V, 38 A (2-conductor terminal blocks)
550 V, 36 A (3-conductor terminal blocks)



Separator for Ex e/Ex i applications
According to EN 50020, a minimum distance of 50 mm must be kept between live parts of Ex e and Ex i circuits. The use of Ex e/Ex i separators is a space-saving solution when Ex e and Ex i terminal blocks are mounted on a common carrier rail.

Suitable for Series: 279 to 282, 2001, 2002 and 2004.

209-190 for 2-conductor terminal blocks
209-191 for 2-, 3-, 4-conductor terminal blocks
209-192 for double-deck terminal blocks

❷ For all approvals and corresponding ratings, visit www.wago.com.

For technical information and abbreviations, see "Technical Section."

TOPJOB® S
Through/Ground/Shield Conductor and Ex Terminal Blocks 10 (16) mm²
2010 Series

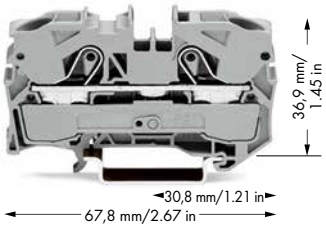
PUSH-IN CAGE CLAMP®

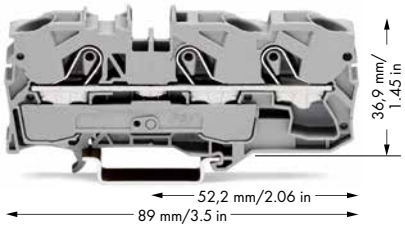
0.5 … 10 (16) mm² ❶ | **20 … 6 AWG**
800 V/8 kV/3 | **600 V, 65 A**
I_N 57 A (76 A) | **600 V, 65 A**
Terminal block width: 10 mm / 0.394 in.
17 … 19 mm / 0.71 in.
❷ Approvals

0.5 … 10 (16) mm² ❶ | **20 … 6 AWG**
800 V/8 kV/3 | **600 V, 65 A**
I_N 57 A (76 A) | **600 V, 65 A**
Terminal block width: 10 mm / 0.394 in.
17 … 19 mm / 0.71 in.
❷ Approvals

Step-down jumpers

❶ Conductor range: 0.5 … 16 mm² "s+f-st"
Push-in termination: 2.5 … 16 mm² "s" and
2.5 … 10 mm² "insulated ferrule, 18 mm"







Color	Item No.	Pack. Unit
2-conductor through terminal block		
gray Ex	**2010-1201**	25
blue Ex	**2010-1204 ❸**	25
orange Ex	**2010-1202**	25
2-conductor ground terminal block		
green-yellow Ex	**2010-1207**	25
2-cond. shield conductor terminal block		
white	**2010-1208**	25

Color	Item No.	Pack. Unit
3-conductor through terminal block		
gray Ex	**2010-1301**	25
blue Ex	**2010-1304 ❸**	25
orange Ex	**2010-1302**	25
3-conductor ground terminal block		
green-yellow Ex	**2010-1307**	25

Item No.	Pack. Unit
Step-down jumper, insulated,	
I_N 32 A, light gray,	
commons 6/4 mm² down to 4/2.5/1.5 mm²	
2006-499	50 (2x25)
Step-down jumper, insulated,	
I_N 57 A, light gray,	
commons 16/10 mm² down to 10/6/4/2.5 mm²	
2016-499	50 (2x25)

Item-Specific Accessories

End and intermediate plate, 1 mm thick



orange	**2010-1292**	100 (4x25)
gray	**2010-1291**	100 (4x25)

End and intermediate plate, 1 mm thick



orange	**2010-1392**	100 (4x25)
gray	**2010-1391**	100 (4x25)

Accessories, 2010 Series

Appropriate marking systems: **WMB/Marking Strips/WMB Inline/Miniature WSB**

Push-in type jumper bar, insulated,



I_N 57 A, light gray

2-way	**2010-402**	50 (2x25)
3-way	**2010-403**	50 (2x25)
4-way	**2010-404**	50 (2x25)
5-way	**2010-405**	50 (2x25)

Step-down jumper, insulated,



I_N 32 A, light gray

2016-499 50 (2x25)

Protective warning marker, with high-voltage symbol,



for 5 terminal blocks

2010-115 50 (2x25)

Test plug adapter, for 4 mm Ø test plug



2009-174 100 (4x25)

Testing tap, for max. 2.5 mm²

2009-182 100 (4x25)

Modular TOPJOB® S connector, can be snapped together, I_N 32 A, for jumper contact slot



2010-511 100 (4x25)

Spacer module, can be snapped together

2010-549 100 (4x25)

Insulated ferrules, extra long,



for TOPJOB® S terminal blocks,
see page 259

Push-in type jumper bar, insulated,



I_N 57 A, light gray

1 to 3	**2010-433**	50 (2x25)
1 to 4	**2010-434**	50 (2x25)
1 to 5	**2010-435**	50 (2x25)

Star point jumper, insulated,



I_N = I_N terminal block, light gray

1–3–5 **2010-405/011-000** 50 (2x25)

Finger guard, touch-proof cover protects unused conductor entries



2010-100 100 (4x25)

Operating tool with a partially insulated shaft,



type 3, (5.5 x 0.8) mm blade

210-721 1

Banana plugs, only for safety extra-low voltage (42 V)



red	**215-212**	50
black	**215-311**	50

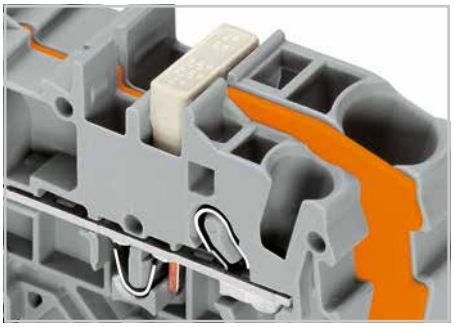
For additional colors, see page 262.

WMB Multi marking system, plain,

10 strips with 10 markers per card, stretchable from 5 … 5.2 mm

793-5501 5

❸ Suitable for Ex i applications
Ex Suitable for Ex e II applications
550 V, 51 A (2-conductor terminal blocks)
550 V, 50 A (3-conductor terminal blocks)



An end plate must be applied to the open side of the larger teminal block.

Additional terminal blocks having a smaller cross-section may be commoned using push-in type jumper bars.

Note:
The total current flowing shall not exceed the rating of the step-down jumper.

Cross-Section Reduction	Push-In Type Jumper Bar	Step-Down Jumper
16 to 10 mm²	2010	
16 to 6 mm²	2006	
16 to 4 mm²		2016-499
16 to 2.5 mm²		2016-499
10 to 6 mm²	2006	
10 to 4 mm²	2004	
10 to 2.5 mm²		2016-499
6 to 4 mm²	2004	
6 to 2.5 mm²	2002	
6 to 1.5 mm²		2006-499

Please find the entire product range in our Full Line Catalog. For additional information, visit www.wago.com.

TOPJOB® S
Through/Ground Conductor/Shield and Ex Terminal Blocks 16 (25 "f-st") mm²
2016 Series

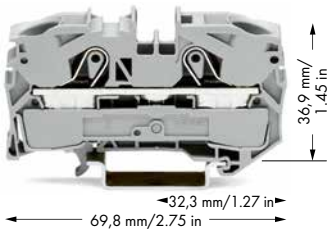
PUSH-IN CAGE CLAMP®

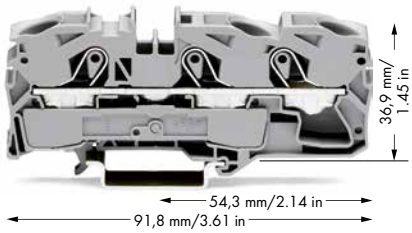
0.5 … 16 (25 "f-st") mm² ❶ **20 … 4 AWG**
800 V/8 kV/3 **600 V, 85 A**
I_N 76 A (90 A) **600 V, 85 A**
Terminal block width: 12 mm / 0.472 in.
18 … 20 mm / 0.75 in.
❷ **Approvals**

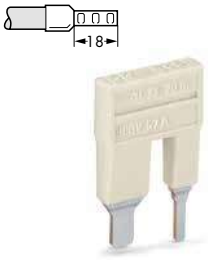
0.5 … 16 (25 "f-st") mm² ❶ **20 … 4 AWG**
800 V/8 kV/3 **600 V, 85 A**
I_N 76 A (90 A) **600 V, 85 A**
Terminal block width: 12 mm / 0.472 in.
18 … 20 mm / 0.75 in.
❷ **Approvals**

Step-down jumpers

❶ Conductor range: 0.5 … 16 mm² "s+f-st" and 25 mm2 "f-st"
Push-in termination: 2.5 … 16 mm² "s" and 2.5 … 16 mm2 "insulated ferrule, 18 mm"







Color	Item No.	Pack. Unit
2-conductor through terminal block		
gray Ex	**2016-1201**	20
blue Ex	**2016-1204** ❸	20
orange Ex	**2016-1202**	20
2-conductor ground terminal block		
green-yellow Ex	**2016-1207**	20
2-cond. shield conductor terminal block		
white	**2016-1208**	20

Color	Item No.	Pack. Unit
3-conductor through terminal block		
gray Ex	**2016-1301**	20
blue Ex	**2016-1304** ❸	20
orange Ex	**2016-1302**	20
3-conductor ground terminal block		
green-yellow Ex	**2016-1307**	20

Item No.	Pack. Unit
Step-down jumper, insulated,	
I_N 32 A, light gray,	
commons 6/4 mm² down to 4/2.5/1.5 mm²	
2006-499	50 (2x25)
Step-down jumper, insulated,	
I_N 57 A, light gray,	
commons 16/10 mm² down to 10/6/4/2.5 mm²	
2016-499	50 (2x25)

Item-Specific Accessories

End and intermediate plate, 1 mm thick



	2016-1292	100 (4x25)
	2016-1291	100 (4x25)

End and intermediate plate, 1 mm thick



	2016-1392	100 (4x25)
	2016-1391	100 (4x25)

Accessories, 2016 Series

Appropriate marking systems: **WMB/Marking Strips/WMB Inline/Miniature WSB**

Push-in type jumper bar, insulated,



I_N 76 A, light gray

2-way	**2016-402**	50 (2x25)
3-way	**2016-403**	50 (2x25)
4-way	**2016-404**	50 (2x25)
5-way	**2016-405**	50 (2x25)

Push-in type jumper bar, insulated,



I_N 76 A, light gray

1 to 3	**2016-433**	50 (2x25)
1 to 4	**2016-434**	50 (2x25)
1 to 5	**2016-435**	50 (2x25)

Star point jumper, insulated,



I_N = I_N terminal block, light gray

1-3-5	**2016-405/011-000**	50 (2x25)

Finger guard, touch-proof cover protects unused conductor entries



	2016-100	100 (4x25)

Operating tool,



3.5 mm and 5.5 mm blades

	2009-310	1

Protective warning marker, with high-voltage symbol,



for 5 terminal blocks

	2016-115	50 (2x25)

Operating tool with a partially insulated shaft,



type 3, (5.5 x 0.8) mm blade

	210-721	1

Test plug adapter, for 4 mm Ø test plug



	2009-174	100 (4x25)

Testing tap, for max. 2.5 mm²

	2009-182	100 (4x25)

Banana plugs, only for safety extra-low voltage (42 V)



	215-212	50
	215-311	50

For additional colors, see page 262.

Modular TOPJOB® S connector, can be snapped together, I_N 32 A, for jumper contact slot



	2016-511	100 (4x25)

Marking strip, plain,



11 mm wide,
50 m roll

	2009-110	1

Spacer module, can be snapped together

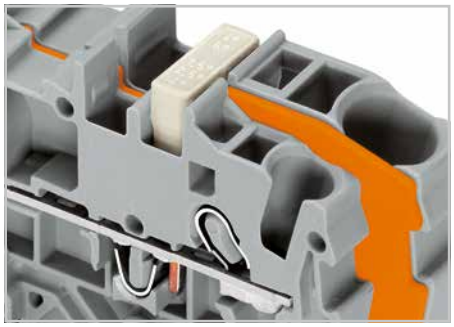
	2016-549	100 (4x25)

Insulated ferrules, extra long,



for TOPJOB® S terminal blocks,
see page 259

❸ Suitable for Ex i applications
Ex Suitable for Ex e II applications
550 V, 70 A (2-conductor terminal blocks)
550 V, 67 A (3-conductor terminal blocks)



An end plate must be applied to the open side of the larger teminal block.

Additional terminal blocks having a smaller cross-section may be commoned using push-in type jumper bars.

Note:
The total current flowing shall not exceed the rating of the step-down jumper.

Cross-Section Reduction	Push-In Type Jumper Bar	Step-Down Jumper
16 to 10 mm²	2010	
16 to 6 mm²	2006	
16 to 4 mm²		2016-499
16 to 2.5 mm²		2016-499
10 to 6 mm²	2006	
10 to 4 mm²	2004	
10 to 2.5 mm²		2016-499
6 to 4 mm²	2004	
6 to 2.5 mm²	2002	
6 to 1.5 mm²		2006-499

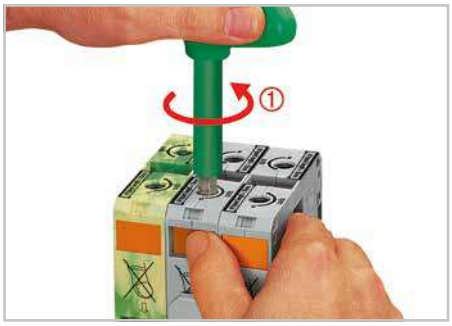
❷ For all approvals and corresponding ratings, visit www.wago.com.

For technical information and abbreviations, see "Technical Section."

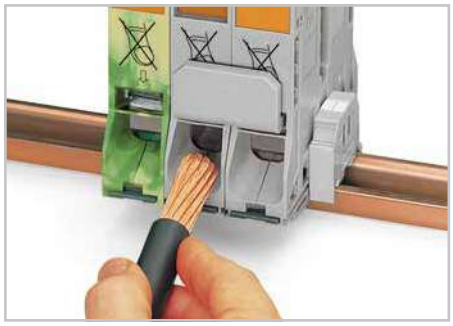
High-Current Terminal Blocks, 285 Series – Description and Installation –

POWER CAGE CLAMP

Conductor termination



Rotate the T-wrench or screwdriver counter-clockwise to the stop ①. Next, push in the orange locking tab. The clamp is locked open for hands-free wiring.



Insert stripped conductor into the clamping unit until it hits backstop. Hold this position.



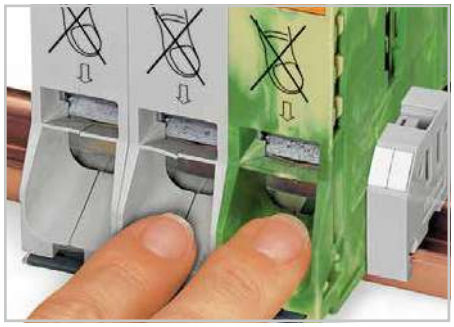
A short counter-clockwise rotation ② releases the tab. When unlocked, the T-wrench rotates clockwise, securely clamping the conductor.

Conductor preparation



1. Bend conductor, if required
2. Cut conductor to length (Conductor end must be straight!)
3. Strip conductor (Observe strip length printed on terminal block!)

Safety notes



Risk of injury!
Keep fingers out of the conductor entry hole!



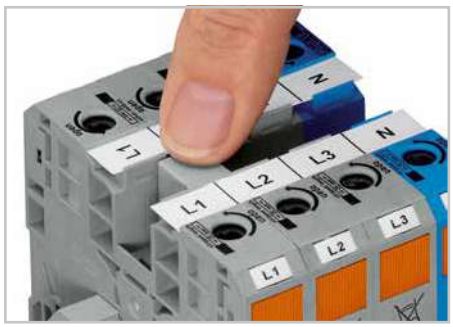
Warning covers visually indicate high-voltage applications (e.g., NOTICE: Power is still on even after switching off the main switch!)

Finger guard



Touch-proof cover protects unused conductor entries and jumper slots (separate jumper entry protector from touch-proof cover).

Commoning (35 mm²)



Commoning adjacent terminal blocks using a centrally positioned push-in jumper.

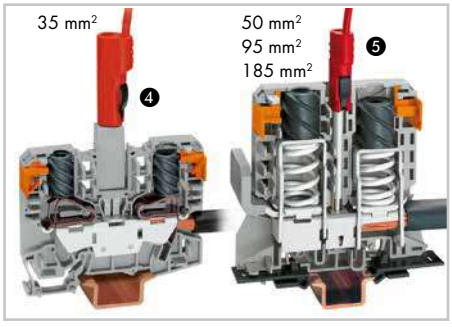
Use an operating tool to remove the conductor!

Commoning (50 mm²/95 mm²/185 mm²)



Commoning with adjacent jumper: tool-free insertion of jumper above the conductor entry. The nominal cross-section remains unchanged.

Testing



4 via test adapter for 4 mm Ø plugs
5 via touch-proof 4 mm Ø plugs

Power tap (35 mm²)



The power tap is inserted into the jumper contact slot. It can be fitted with a strain relief plate and provides a test option for 2 mm Ø test plugs.

Power tap (50 mm²/95 mm²/185 mm²)



Reliably and easily tap directly into the power supply. Insert the unwired tap before opening the clamping unit.

For information on POWER CAGE CLAMP connection, see page 15.

For aluminum conductors, see notes in Full Line Catalog.

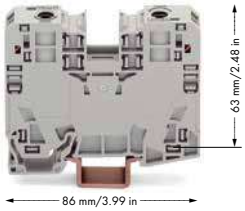
High-Current, Through/Ground Conductor and Ex Terminal Blocks 35 mm², 50 mm² and 95 mm²

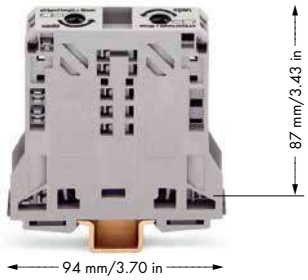
285 Series

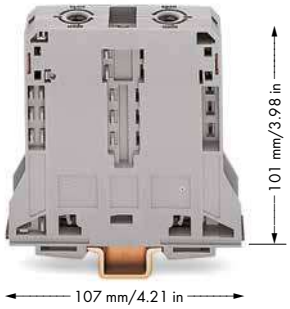
6 … 35 mm² | **8 … 2 AWG**
1000 V/8 kV/3 | **600 V, 115 A**
I_N 125 A | **600 V, 115 A**
Terminal block width: 16 mm / 0.63 in.
25 mm / 0.98 in.
❷ Approvals

10 … 50 (70 "f-st") mm² | **8 … 1 AWG**
1000 V/8 kV/3 | **600 V, 150 A**
I_N 150 A | **600 V, 150 A**
Terminal block width: 20 mm / 0.787 in.
30 mm / 1.18 in.
❷ Approvals

25 … 95 mm² | **4 … 4/0 AWG**
1000 V/8 kV/3 | **600 V, 200 A**
I_N 232 A | **600 V, 210 A**
Terminal block width: 25 mm / 0.98 in.
35 mm / 1.38 in.
❷ Approvals







Color	Item No.	Pack. Unit
2-conductor through terminal block		
gray	**285-135**	15
blue	**285-134**	15
light gray Ex	**285-935**	15
dark gray/yellow	**285-131**	15
2-cond. ground conductor terminal block, only for DIN 35 x 15 rails; 2.3 mm thick, copper		
green-yellow	**285-137**	15

Color	Item No.	Pack. Unit
2-conductor through terminal block		
gray	**285-150**	5
blue	**285-154**	5
dark gray/yellow	**285-151**	5
2-cond. ground conductor terminal block, only for DIN 35 x 15 rails; 2.3 mm thick, copper		
green-yellow	**285-157**	5

Color	Item No.	Pack. Unit
2-conductor through terminal block		
gray	**285-195**	5
blue	**285-194**	5
light gray Ex	**285-995**	5
dark gray/yellow	**285-191**	5
2-cond. ground conductor terminal block, only for DIN 35 x 15 rails; 2.3 mm thick, copper		
green-yellow	**285-197**	5
green-yellow Ex	**285-197/999-950**	5

Accessories, 285 Series

Appropriate marking system: **WMB/WMB Inline**

Adjacent jumper, insulated,

I_N 85 A, gray
285-435 50 (2x25)

Power tap, I_N 32 A, 0.2 … 6 mm²,

8 mm/0.315 in. wide
285-427 5

Operating tool with a partially insulated shaft,

type 3, (5.5 x 0.8) mm blade
210-721 1

Protective warning marker,

with high-voltage symbol, black
285-420 50 (2x25)

Finger guard, touch-proof cover protects unused

conductor entries
285-421 100 (4x25)

Step-down jumper, insulated,

800 V, I_N 32 A, gray
285-499 50 (2x25)

Steel carrier rail, per EN 60715,

35 x 15 mm, 1.5 mm thick,
2 m long,
unslotted **210-114** 10

Marking strip, plain,

11 mm wide,
50 m roll
2009-110 1

Test plug adapter, 11.6 mm wide, for 4 mm Ø test plug

283-404 25

Adjacent jumper, insulated, ❸

I_N 150 A for 1 jumper
I_N 130 A for 2 to 4 jumpers
285-450 25

Power tap, I_N 41 A, 0.2 … 6 mm², ❸

16 mm/0.63 in. wide
285-447 5

Allen wrench with a partially insulated shaft

8 mm **285-172** 1

Protective warning marker,

with high-voltage symbol, black
285-440 50 (2x25)

Finger guard, touch-proof cover protects unused

conductor entries and jumper slots
285-441 100 (4x25)

Test plug, 4 mm Ø, protected against accidental contact

(e.g., available through Multi-Contact Deutschland GmbH Postfach 1606, 79551 Weil am Rhein, Hegenheimerstraße 19 79576 Weil am Rhein)

Copper carrier rail, per EN 60715,

35 x 15 mm, 2.3 mm thick,
2 m long
unslotted **210-198** 10

Block-to-block connector,

for 50 mm² high-current terminal blocks
285-448 25 **WMB**

Multi marking system, plain,

10 strips with 10 markers per card, stretchable from 5 … 5.2 mm
793-5501 5

Adjacent jumper, insulated, ❸

I_N 232 A for 1 jumper
I_N 130 A for 2 to 4 jumpers
285-495 25

Power tap, I_N 57 A, 0.2 … 10/16 mm², ❸

20 mm/0.787 in. wide
285-407 5

Allen wrench with a partially insulated shaft

8 mm **285-172** 1

Protective warning marker,

with high-voltage symbol, black
285-170 50 (2x25)

Finger guard, touch-proof cover protects unused

conductor entries and jumper slots
285-169 25

Test plug, 4 mm Ø, protected against accidental contact

(e.g., available through Multi-Contact Deutschland GmbH Postfach 1606, 79551 Weil am Rhein, Hegenheimerstraße 19 79576 Weil am Rhein)

Copper carrier rail, per EN 60715,

35 x 15 mm, 2.3 mm thick,
2 m long
unslotted **210-198** 10

Block-to-block connector,

for 95 mm² high-current terminal blocks
285-168 25

Ex Suitable for Ex e II applications
25 … 95 mm² 4 … 4/0 AWG 750 V, 195 A
35 … 70 mm² 2 … 2/0 AWG
for ground conductor terminal blocks

❷ For all approvals and corresponding ratings, visit www.wago.com.

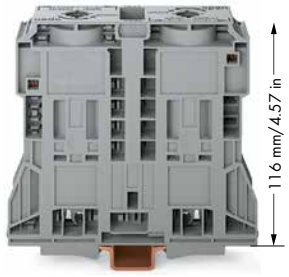
For technical information and abbreviations, see "Technical Section."

POWER CAGE CLAMP

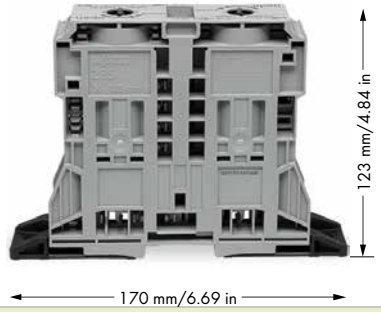
High-Current Through and Ground Conductor Terminal Blocks,185 mm²

285 Series

50 ... 185 mm² | 1/0 AWG ... 350 kcmil
AC/DC 1000 V/DC 1500 V/12 kV/3 ❶
I_N 353 A
Terminal block width: 32 mm / 1.26 in.
45 ... 47 mm / 1.77 ... 1.85 in.
❷ Approvals



50 ... 185 mm² | 1/0 AWG ... 350 kcmil
AC/DC 1000 V/DC 1500 V/12 kV/3 ❶
I_N 353 A
Terminal block width: 32 mm / 1.26 in.
45 ... 47 mm / 1.77 ... 1.85 in.
❷ Approvals



Color	Item No.	Pack. Unit
2-conductor through terminal block		
only for DIN 35 x 15 rails		
gray	**285-1185**	5
blue	**285-1184**	5
2-conductor ground terminal block,		
only for DIN 35 x 15 rails; 2.3 mm thick, copper		
green-yellow	**285-1187**	5

Color	Item No.	Pack. Unit
2-conductor through terminal block with screw flanges		
gray	**285-1161**	4
blue	**285-1164**	4
2-conductor through terminal block with screw flanges		
dark gray/yellow	**285-1167**	4

❶ AC/DC up to 1000 V = Rated voltage
DC up to 1500 V
12 kV = Rated impulse voltage
3 = Pollution degree
(see Full Line Catalog)



High-current through terminal blocks for M8 screws and fixing elements

Accessories, 285 Series

Appropriate marker systems:
WMB/Marking Strips/WMB Inline

Adjacent jumper, insulated, ❸
I_N 309 A for 1 jumper
285-1171 25

Power tap, I_N 57 A, 0.2 ... 10/16 mm², ❸
20 mm/0.787 in. wide
285-1175 5

Allen wrench with a partially insulated shaft
8 mm **285-172** 1

Protective warning marker,
with high-voltage symbol, black
285-1177 50 (2x25)

Finger guard, touch-proof cover protects unused conductor entries and jumper slots
285-1178 25

Copper carrier rail, as per EN 60715,
35 x 15 mm, 2.3 mm thick,
2 m long
unslotted **210-198** 10

Three-phase set,
with 185 mm² high-current terminal blocks **285-1169** 1

Screwless end stop,
for DIN-35 rail,
14 mm wide
249-197 10

Block-to-block connector,
for 185 mm² high-current terminal blocks
285-1179 25

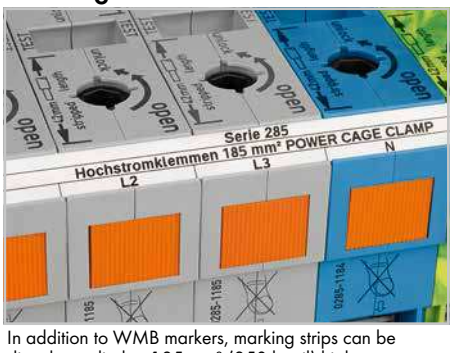
WMB Inline, plain,
stretchable from 5 ... 5.2 mm,
1,500 WMB markers (5 mm) per roll
2009-115 1

Marking strip, plain,
11 mm wide,
50 m roll
2009-110 1

WMB Multi marking system, plain,
10 strips with 10 markers per card,
for 5 ... 17.5 mm terminal block width
793-501 5

WMB Multi marking system, plain,
10 strips with 10 markers per card,
stretchable from 5 ... 5.2 mm
793-5501 5

Marking



In addition to WMB markers, marking strips can be directly applied to 185 mm² (350 kcmil) high-current terminal blocks.

834 Series



Commoning from 35 mm²/AWG 2 POWER CAGE CLAMP terminal blocks to 10/16 mm² (AWG 8/10) TOPJOB® S terminal blocks (2010 and 2016 Series)

❸ Adjacent jumpers and power taps can only be removed or inserted when the clamp is in closed position.

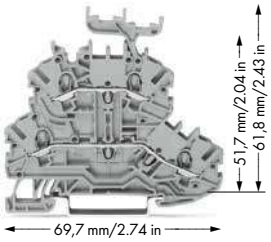
TOPJOB® S
Double-Deck Terminal Blocks 1 (1.5) mm²
2000 Series

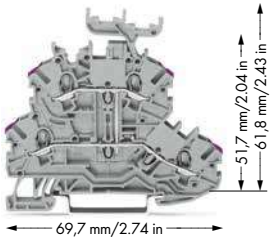
0.14 … 1 (1.5) mm² ❶ | **24 … 16 AWG**
500 V/6 kV/3
I_N 13.5 A (16 A)
Terminal block width: 3.5 mm / 0.138 in.
9 … 11 mm / 0.39 in.
❷ **Approvals**

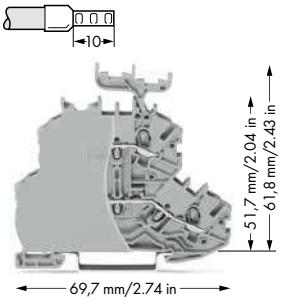
0.14 … 1 (1.5) mm² ❶ | **24 … 16 AWG**
500 V/6 kV/3
I_N 13.5 A (16 A)
Terminal block width: 3.5 mm / 0.138 in.
9 … 11 mm / 0.39 in.
❷ **Approvals**

0.14 … 1 (1.5) mm² ❶ | **24 … 16 AWG**
800 V/8 kV/3
I_N 13.5 A (16 A)
Terminal block width: 4.2 mm / 0.165 in.
9 … 11 mm / 0.39 in.
❷ **Approvals**

❶ Conductor range: 0.14 … 1.5 mm² "s+f-st"
Push-in termination: 0.5 … 1.5 mm² "s" and 0.5 … 0.75 mm² "insulated ferrule, 10 mm"



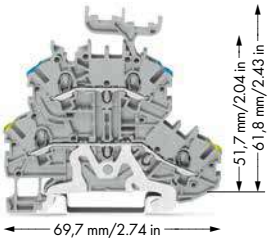


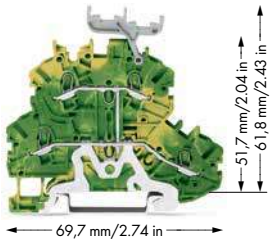


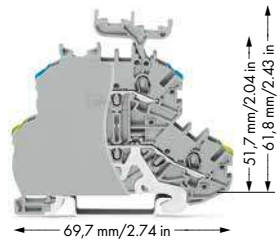
Color	Item No.	Item No.	Pack. Unit
Through/through terminal block, gray housing			
Marker carrier with		without	
L/L	**2000-2231**	**2000-2201**	50
N/L	**2000-2232**	**2000-2202**	50
L/N	**2000-2233**	**2000-2203**	50
Blue housing			
N/N	**2000-2234** ❸	**2000-2204** ❸	50

Color	Item No.	Item No.	Pack. Unit
4-conductor through terminal block, internally commoned, gray housing, violet-colored conductor entry			
Marker carrier with		without	
L	**2000-2238**	**2000-2208**	50
4-conductor through terminal block, internally commoned, blue housing, violet-colored conductor entry			
N	**2000-2239** ❸	**2000-2209** ❸	50

Color	Item No.	Item No.	Pack. Unit
Through/through terminal block, with end plate, gray housing			
Marker carrier with		without	
L/L	2000-2231/099-000	2000-2201/099-000	50
N/L	2000-2232/099-000	2000-2202/099-000	50
L/N	2000-2233/099-000	2000-2203/099-000	50
Blue housing			
N/N	2000-2234/099-000 ❸	2000-2204/099-000 ❸	50







Color	Item No.	Item No.	Pack. Unit
Ground conductor/through terminal block, colored conductor entry			
Marker carrier with		without	
PE/N	**2000-2247**	**2000-2217**	50
PE/L	**2000-2257**	**2000-2227**	50
Shield conductor/through terminal block, colored conductor entry			
Marker carrier with		without	
Shield/N	**2000-2248**	**2000-2218**	50
Shield/L	**2000-2258**	**2000-2228**	50

Color	Item No.	Item No.	Pack. Unit
4-conductor ground terminal block, internally commoned, green-yellow housing			
Marker carrier with		without	
PE	**2000-2237**	**2000-2207**	50

Color	Item No.	Item No.	Pack. Unit
Ground conductor/through terminal block, with end plate, colored conductor entry			
Marker carrier with		without	
PE/N	2000-2247/099-000	2000-2217/099-000	50
PE/L	2000-2257/099-000	2000-2227/099-000	50
Shield conductor/through terminal block, with end plate, colored conductor entry			
Marker carrier with		without	
Shield/N	2000-2248/099-000	2000-2218/099-000	50
Shield/L	2000-2258/099-000	2000-2228/099-000	50

Item-Specific Accessories

End and intermediate plate, 0.7 mm thick



	2000-2292	100 (4x25)
	2000-2291	100 (4x25)

End and intermediate plate, 0.7 mm thick



	2000-2292	100 (4x25)
	2000-2291	100 (4x25)

The end plate is an integral part of the terminal block.

Accessories, 2000 Series

Appropriate marking systems: **WMB/Marking Strips/WMB Inline**

Push-in type jumper bar, insulated,



I_N 14 A, light gray

2-way	**2000-402**	200 (8x25)
3-way	**2000-403**	200 (8x25)
4-way	**2000-404**	200 (8x25)
:	:	
10-way	**2000-410**	100 (4x25)

. . ./**000-005** . . ./**000-006**

Push-in type jumper bar, insulated, I_N 25 A, light gray



1 to 3	**2000-433**	200 (8x25)
:	:	
1 to 10	**2000-440**	100 (4x25)

Double-deck vertical jumper, insulated, I_N 13.5 A



	2000-492	
	2000-493/000-012	100 (4x25)

Star point jumper, insulated,



I_N = I_N terminal block, light gray

1-3-5	**2000-405/011-000**	100 (4x25)

Double-deck marker carrier, pivoting



2000-121 50 (2x25)

Please find the entire product range in our Full Line Catalog. For additional information, visit www.wago.com.

PUSH-IN CAGE CLAMP®

TOPJOB® S
Double-Deck Terminal Blocks 2.5 (4) mm²
2002 Series

0.25 … 2.5 (4) mm² ❶ | **22 … 12 AWG**
500 V/6 kV/3
I_N 24 A (28 A)
300 V, 20 A
600 V, 20 A

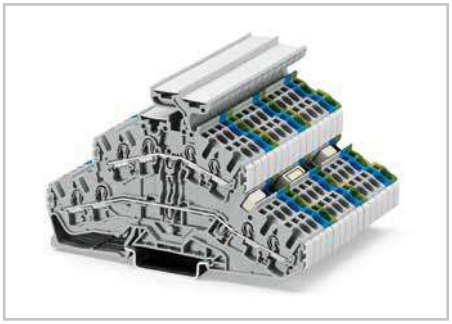
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.

❷ **Approvals**

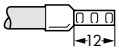
0.25 … 2.5 (4) mm² ❶ | **22 … 12 AWG**
800 V/8 kV/3
I_N 24 A (28 A)

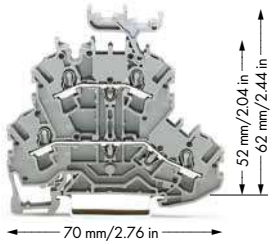
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.

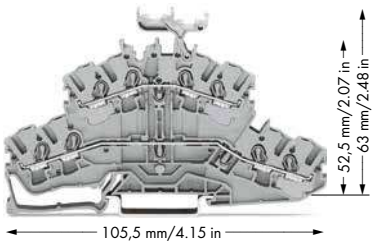
❷ **Approvals**



❶ Conductor range: 0.25 … 4 mm² "s+f-st"
Push-in termination: 0.75 … 4 mm² "s" and
0.75 … 2.5 mm² "insulated ferrule, 12 mm"

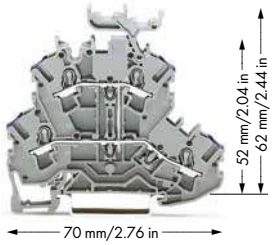


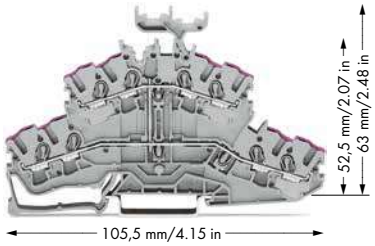




Color	Item No.	Item No.	Pack. Unit
2-conductor double-deck terminal block, for DIN-35 rail			
Through/through terminal block,			
	Marker carrier with	without	
L/L Ex	**2002-2231**	**2002-2201**	50
N/L Ex	**2002-2232**	**2002-2202**	50
L/N Ex	**2002-2233**	**2002-2203**	50
Blue housing			
N/N	**2002-2234** ❸	**2002-2204** ❸	50
Ground conductor/through terminal block,			
PE/N Ex	**2002-2247**	**2002-2217**	50
PE/L Ex	**2002-2257**	**2002-2227**	50

Color	Item No.	Item No.	Pack. Unit
4-conductor double-deck terminal block, for DIN-35 rail			
Through/through terminal block,			
	Marker carrier with	without	
L/L Ex	**2002-2431**	**2002-2401**	50
N/L Ex	**2002-2432**	**2002-2402**	50
L/N Ex	**2002-2433**	**2002-2403**	50
Blue housing			
N/N	**2002-2434** ❸	**2002-2404** ❸	50
Ground conductor/through terminal block,			
PE/N Ex	**2002-2447**	**2002-2417**	50
PE/L Ex	**2002-2457**	**2002-2427**	50





Color	Item No.	Item No.	Pack. Unit
4-conductor double-deck terminal block, for DIN-35 rail			
Through terminal block, internally commoned,			
violet-colored conductor entry			
	Marker carrier with	without	
L Ex	**2002-2238**	**2002-2208**	50
4-conductor through terminal block, internally commoned,			
violet-colored conductor entry			
N	**2002-2239** ❸	**2002-2209** ❸	50
4-conductor double-deck terminal block, for DIN-35 rail			
Ground terminal block, internally commoned,			
PE Ex	**2002-2237**	**2002-2207**	50

Color	Item No.	Item No.	Pack. Unit
8-conductor double-deck terminal block, for DIN-35 rail			
Through terminal block, internally commoned,			
violet-colored conductor entry			
	Marker carrier with	without	
L Ex	**2002-2438**	**2002-2408**	50
Through terminal block, internally commoned,			
violet-colored conductor entry			
N	**2002-2439** ❸	**2002-2409** ❸	50
4-conductor double-deck terminal block, for DIN-35 rail			
Ground terminal block, internally commoned,			
PE Ex	**2002-2437**	**2002-2407**	50

Item-Specific Accessories

Appropriate marking systems: **WMB/Marking Strips**

End and intermediate plate, 0.8 mm thick



2002-2292 100 (4x25)
2002-2291 100 (4x25)

End and intermediate plate, 0.8 mm thick



2002-2492 100 (4x25)
2002-2491 100 (4x25)

Accessories, 2002 Series

Adjacent jumper for continuous commoning, insulated,



I_N 25 A, light gray
2-way **2002-400** 100 (4x25)
1 to 3 **2002-423** 100 (4x25)

Push-in type jumper bar, insulated,



I_N 25 A, light gray
2-way **2002-402** 200 (8x25)
3-way **2002-403** 200 (8x25)
4-way **2002-404** 200 (8x25)
:
10-way **2002-410** 100 (4x25)
. . ./**000-005** . . ./**000-006**

Push-in type jumper bar, insulated,



I_N 25 A, light gray
1 to 3 **2002-433** 200 (8x25)
1 to 4 **2002-434** 200 (8x25)
:
1 to 10 **2002-440** 100 (4x25)

Staggered jumper, insulated,



I_N 25 A, light gray
2-way **2002-472** 100 (4x25)
3-way **2002-473** 100 (4x25)
:
12-way **2002-482** 50 (2x25)

Double-deck vertical jumper, insulated, I_N 24 A



2002-492
2002-492/000-012
100 (4x25)

Modular TOPJOB® S connector,



can be snapped together,
for jumper contact slot, I_N 24 A
2002-511 100 (4x25)

Spacer module, can be snapped together
2002-549 100 (4x25)

Protective warning marker, with high-voltage symbol,



for 5 terminal blocks
2002-115 100 (4x25)

Double-deck marker carrier, pivoting



2002-121 50 (2x25)

Operating tool with a partially insulated shaft,



type 2, (3.5 x 0.5) mm blade
210-720 1

❸ Suitable for Ex i applications
Ex Suitable for Ex e II applications
440 V, 20 A

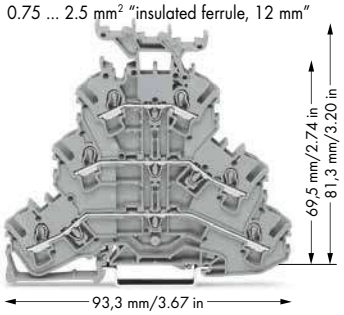
❷ For all approvals and corresponding ratings, visit www.wago.com.

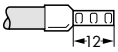
For technical information and abbreviations, see technical section.

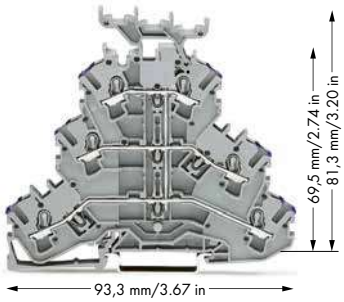
TOPJOB® S
Triple-Deck Terminal Blocks 2.5 (4) mm²
2002 Series

0.25 … 2.5 (4) mm² ❶ | 22 … 12 AWG
500 V/6 kV/3 | 300 V, 20 A
I_N 24 A (28 A) | 600 V, 20 A
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❷ Approvals

❶ Conductor range: 0.25 … 4 mm² "s+f-st"
Push-in termination: 0.75 … 4 mm² "s" and
0.75 … 2.5 mm² "insulated ferrule, 12 mm"

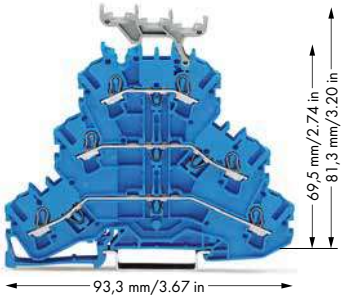


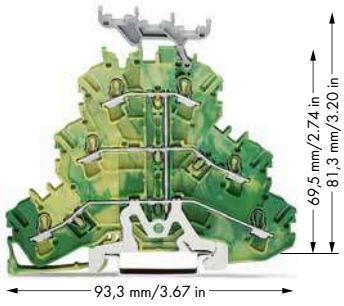




Color	Item No.	Item No.	Pack. Unit
Through/through/through terminal block			
Marker carrier with		without	
L/L/L	**2002-3231**	**2002-3201**	50
L/L/N	**2002-3233**	**2002-3203**	50
Ground conductor/through/through terminal block			
Marker carrier with		without	
PE/N/L	**2002-3247**	**2002-3217**	50
PE/L/L	**2002-3257**	**2002-3227**	50

Color	Item No.	Item No.	Pack. Unit
6-conductor through terminal block, internally commoned, violet-colored conductor entry			
Marker carrier with		without	
L	**2002-3238**	**2002-3208**	50
Shield/through/through terminal block			
Marker carrier with		without	
Shield/N/L	**2002-3248**	**2002-3218**	50
Shield/L/L	**2002-3258**	**2002-3228**	50





Color	Item No.	Item No.	Pack. Unit
Through/through/through terminal block			
Marker carrier with		without	
N/N/N	**2002-3234** ❸	**2002-3204** ❸	50
6-conductor through terminal block			
Marker carrier with		without	
N	**2002-3239** ❸	**2002-3209** ❸	50

Color	Item No.	Item No.	Pack. Unit
6-conductor ground terminal block, internally commoned,			
Marker carrier with		without	
PE	**2002-3237**	**2002-3207**	50

Accessories, 2002 Series

End and intermediate plate, 0.8 mm thick



2002-3292	100 (4x25)
2002-3291	100 (4x25)

Triple-deck marker carrier, pivoting



2002-131	50 (2x25)

Adjacent jumper for continuous commoning, insulated,



I_N 25 A, light gray

2-way	**2002-400**	100 (4x25)
1 to 3	**2002-423**	100 (4x25)

Push-in type jumper bar, insulated,



I_N 25 A, light gray

2-way	**2002-402**	200 (8x25)
3-way	**2002-403**	200 (8x25)
4-way	**2002-404**	200 (8x25)
:	:	
10-way	**2002-410**	100 (4x25)

. . ./**000-005** . . ./**000-006**

Push-in type jumper bar, insulated,



I_N 25 A, light gray

1 to 3	**2002-433**	200 (8x25)
1 to 4	**2002-434**	200 (8x25)
:	:	
1 to 10	**2002-440**	100 (4x25)

Staggered jumper, insulated,



I_N 25 A, light gray

2-way	**2002-472**	100 (4x25)
3-way	**2002-473**	100 (4x25)
4-way	**2002-474**	100 (4x25)
5-way	**2002-475**	50 (2x25)
:	:	
12-way	**2002-482**	50 (2x25)

Double-deck vertical jumper, insulated, I_N 24 A



2002-492	
2002-492/000-012	100 (4x25)

Triple-deck vertical jumper, insulated, I_N 25 A



2002-493	
2002-493/000-012	100 (4x25)

Operating tool with a partially insulated shaft,



type 2, (3.5 x 0.5) mm blade

210-720	1

Please find the entire product range in our Full Line Catalog. For additional information, visit www.wago.com.

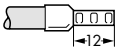
❸ Suitable for Ex i applications

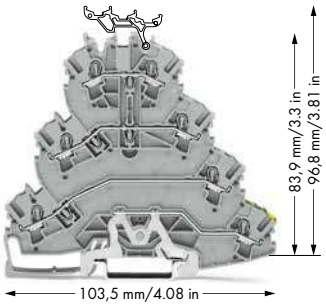
PUSH-IN CAGE CLAMP®

TOPJOB® S
Quadruple-Deck Terminal Blocks 2.5 (4) mm²
2002 Series

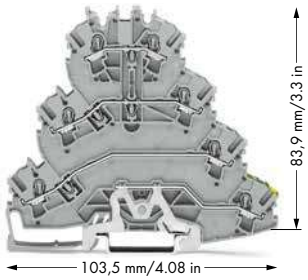
0.25 … 2.5 (4) mm² ❶ | 22 … 12 AWG
800 V/8 kV/3
I_N 20 A (25 A)
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❷ Approvals

❶ Conductor range: 0.25 … 4 mm² "s+f-st"
Push-in termination: 0.75 … 4 mm² "s" and 0.75 … 2.5 mm² "insulated ferrule, 12 mm"





Color	Item No.	Pack. Unit
Quadruple-deck terminal block		
or		
Terminal block for electric motor wiring,		
with marker carrier, gray		
L1 - L2	**2002-4141**	25
L1 - L2 - L3	**2002-4131**	25
L1 - L2 - L3 - PE	**2002-4157**	25



Color	Item No.	Pack. Unit
Quadruple-deck terminal block		
or		
Terminal block for electric motor wiring,		
without marker carrier, gray		
L1 - L2	**2002-4111**	25
L1 - L2 - L3	**2002-4101**	25
L1 - L2 - L3 - PE	**2002-4127**	25

Accessories, 2002 Series

End and intermediate plate, 0.8 mm thick



- **2002-4192** 100 (4x25)
- **2002-4191** 100 (4x25)

Insulation stop, 5 pcs/strip



- **2002-171** 0.25–0.5 mm²
- **2002-172** 0.75–1 mm²

200 (8x25)

Star point jumper, insulated,



$I_N = I_N$ terminal block, light gray
1 - 3 - 5 **2002-405/011-000**
100 (4x25)

Delta jumper, insulated,



$I_N = I_N$ terminal block, light gray
1-2 3-4 5-6 **2002-406/020-000**
100 (4x25)

Push-in type wire jumper, insulated,



I_N 18 A,
1.5 mm² conductor size
L=60 mm **2009-412** 100 (10x10)
L=110 mm **2009-414** 100 (10x10)
L=250 mm **2009-416** 100 (10x10)

Lockout cap,



for conductor entry and operating slot

- **2002-192** 25
- **2002-191** 25
- **2002-194** 25

Protective warning marker, with high-voltage symbol,



for 5 terminal blocks
2002-115 100 (4x25)

WMB Inline, plain, stretchable from 5 … 5.2 mm, 1,500



WMB markers (5 mm) per roll
2009-115 1

Marking strip, plain,



11 mm wide,
50 m roll
2009-110 1

Modular TOPJOB® S L-test plug, can be snapped together,



I_N 18 A, for conductor entry
2002-611 100 (4x25)

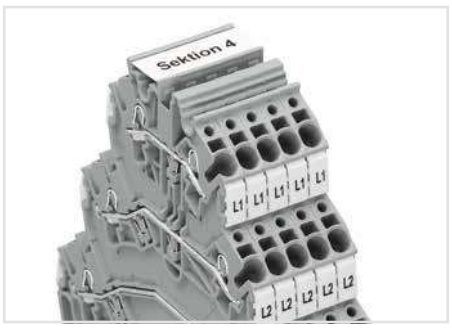
Spacer module, can be snapped together
2002-649 100 (4x25)



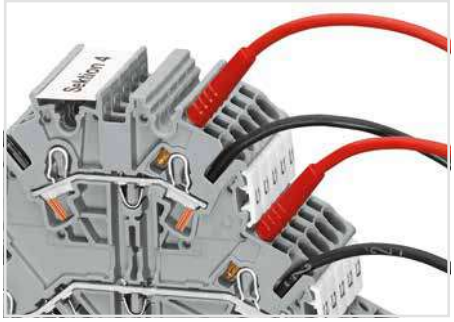
Creating spacer housings for rail-mounted terminal blocks for electric motor wiring via conductor entry and operating slot covers.



Compact design: Three phases and one ground conductor in a single terminal block.



Marking clamping units with WMB Multi marking system (see Full Line Catalog).
Group marking via marking strips.

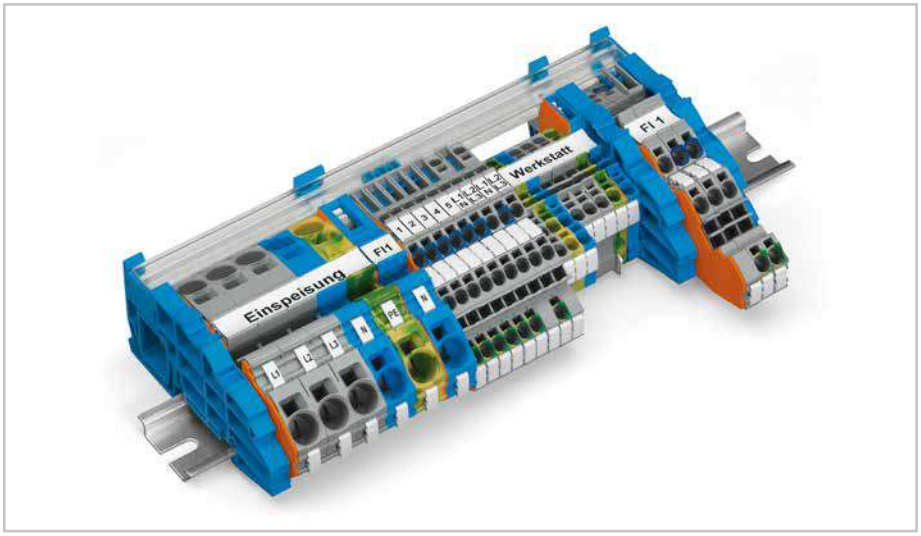


Testing with 2 mm Ø test plug.

❷ For all approvals and corresponding ratings, visit www.wago.com.

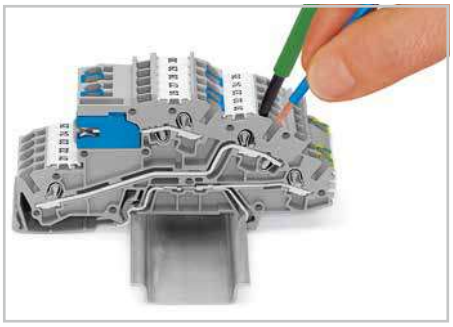
For technical information and abbreviations, see technical section.

TOPJOB® S
Multilevel Installation Terminal Blocks, N-Disconnect Slide Link and Busbar Carrier – Description and Installation –

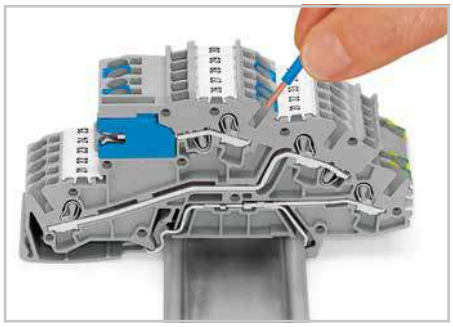


TOPJOB® S – Terminal Blocks for Every Application

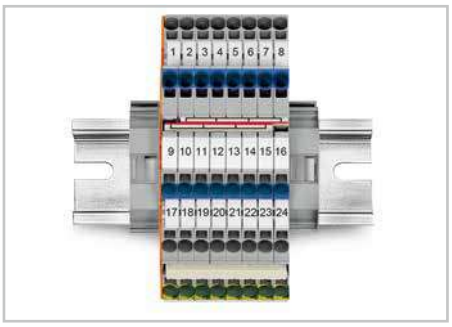
- Push-in termination of solid conductors in small distribution boards saves time and money.
- Operating errors can be prevented as all TOPJOB® S terminal blocks for building installations are equipped with push-in connection technology.
- Terminal blocks for building installations expand circuit design possibilities.
- The use of standard accessories reduces order processing and inventory costs.
- Accessories, shared with all terminal blocks, enhance safety by reducing the amount of components and installation techniques required.
- The busbar position is the same, making the TOPJOB® S Terminal Blocks compatible with standard TOPJOB® Installation Terminal Blocks.
- The optional busbar transparent cover (Item No. *777-303*) protects the busbar against accidental contact and makes it easy to see which terminal blocks are connected to the busbar.



Terminating fine-stranded conductors using an operating tool.



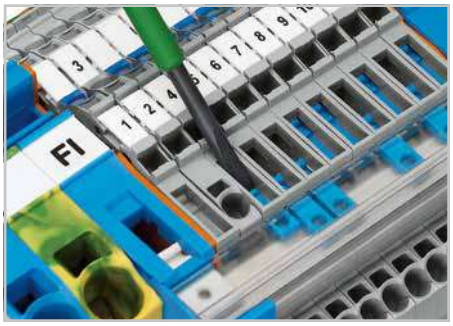
Terminating solid conductors by simply pushing them in.



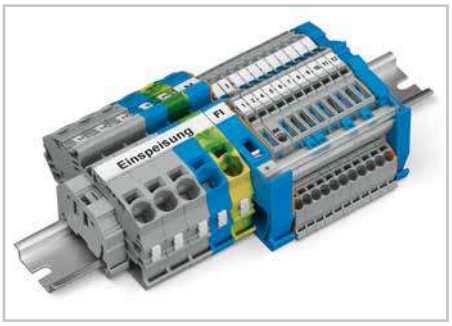
Conductor entries on multilevel installation terminal blocks are color-coded, providing a clear arrangement of the terminals.



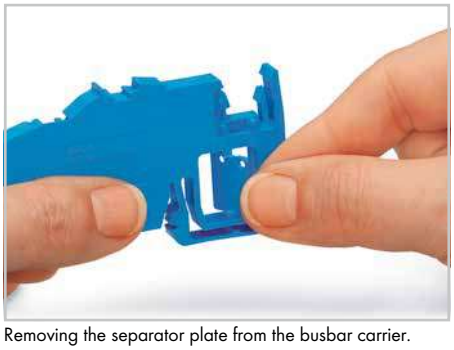
Testing with 2 mm Ø test plug (max. test voltage: 42 V).



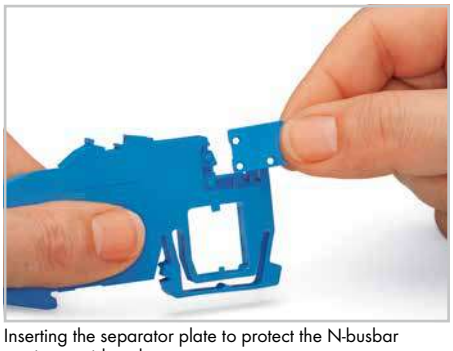
Tool-operated N-disconnect slide link



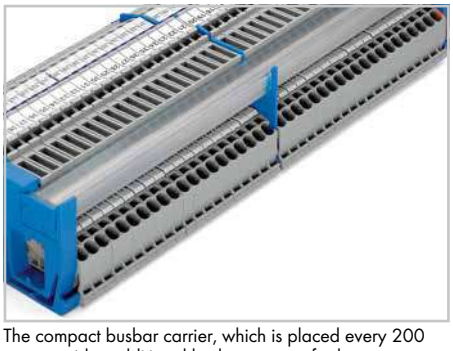
Each connection point features an individual marker slot for WMB markers.
Additionally, the upper marker slot is suitable for marker strips that can be marked manually using a felt-tip pen or automatically via thermal transfer printer.



Removing the separator plate from the busbar carrier.



Inserting the separator plate to protect the N-busbar against accidental contact.



The compact busbar carrier, which is placed every 200 mm, provides additional busbar support for longer assemblies.

For information on Push-in CAGE CLAMP® connection, see page 14.

TOPJOB® S
Multilevel Installation Terminal Blocks with N-Disconnect Slide Links 2.5 (4) / 4 (6) mm², 2003 / 2005 Series

PUSH-IN CAGE CLAMP®

0.25 … 2.5 (4) mm² ❶ | **22 … 12 AWG**
250 V/4 kV/3; 32 A (32 A) ❸ ❹
400 V/6 kV/3; 32 A (32 A) ❸ ❺
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❻ **Approvals**

0.5 … 4 (6) mm² ❷ | **20 … 10 AWG**
250 V/4 kV/3; 36 A (36 A) ❸ ❹
400 V/6 kV/3; 36 A (36 A) ❸ ❺
Terminal block width: 6.2 mm / 0.244 in.
11 … 13 mm / 0.47 in.
❻ **Approvals**

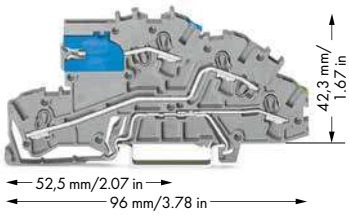
❶ Conductor range: 0.25 … 4 mm² "s+f-st"
Push-in termination: 0.75 … 4 mm² "s"
and 0.75 … 2.5 mm²
"insulated ferrules, 12 mm"

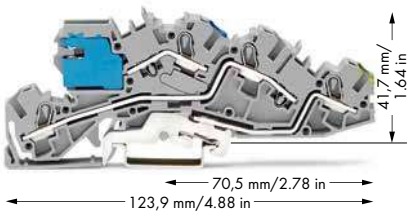
❷ Conductor range: 0.5 … 6 mm² "s+f-st"
Push-in termination: 1 … 6 mm² "s"
and 0.75 … 4 mm²
"insulated ferrules, 12 mm"

❸ 250 V/
400 V = Rated voltage
4 kV/
6 kV = Rated impulse voltage
3 = Pollution degree

❹ 250 V/4 kV potential – ground

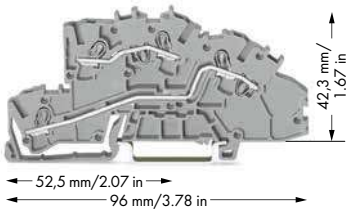
❺ 400 V/6 kV potential – potential

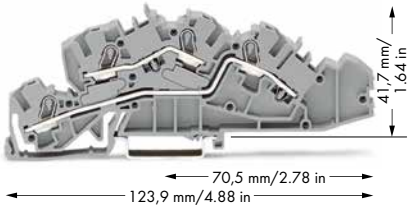




Color	Item No.	Pack. Unit
Multilevel installation terminal block, with N-disconnect slide link		
NT/L/PE	**2003-7641**	50
NT/L	**2003-7640**	50
LT/L	**2003-7659**	50
N/L/PE	**2003-7646**	50
L/L/PE	**2003-7645**	50

Color	Item No.	Pack. Unit
Multilevel installation terminal block, with N-disconnect slide link		
NT/L/PE	**2005-7641**	50





Color	Item No.	Pack. Unit
Multilevel installation terminal block		
L/L	**2003-7642**	50
N/L	**2003-7649**	50
L	**2003-7650**	50
N	**2003-7651**	50

Color	Item No.	Pack. Unit
Multilevel installation terminal block		
N/L/PE	**2005-7646**	50
L/L/PE	**2005-7645**	50
L/L	**2005-7642**	50
N/L	**2005-7649**	50

Item-Specific Accessories

Appropriate marking systems:
WMB/Marking Strips/WMB Inline

End and intermediate plate, 0.8 mm thick

2003-7692 100 (4x25)

End and intermediate plate, 1 mm thick

2005-7692 100 (4x25)

Adjacent jumper for continuous commoning, insulated,

I_N 25 A, light gray
2-way **2002-400** 100 (4x25)
1 to 3 **2002-423** 100 (4x25)

Push-in type jumper bar, insulated,

I_N 25 A, light gray
see page 27 (2002 Series)

Push-in type jumper bar, insulated,

I_N 32 A, light gray
see page 29 (2004 Series)

Lock-out, snap-on type,

prevents reclosing of slide link
2003-7300 100 (4x25)

Lock-out, snap-on type,

prevents reclosing of slide link
2005-7300 100 (4x25)

Staggered jumper, insulated,

I_N 25 A, light gray
2-way **2002-472** 100 (4x25)
3-way **2002-473** 100 (4x25)
: :
12-way **2002-482** 50 (2x25)

Accessories, 2003 and 2005 Series

Straight busbar, Cu with tin plating,

10 x 3 mm,
1000 mm long
I_N 140 A **210-133** 1

Cover for N-busbar, transparent,

1000 mm long
777-303 1

N-supply terminal block, I_N 76 A,

16 mm²,
12 mm wide
2016-7714 20

Ground supply terminal block,

16 mm²,
12 mm wide
2016-7607 20

Connector, with blue cover,

for N-busbar,
2.5 … 16 mm²
210-281 100 (2x50)

Connector,

for N-busbar,
2.5 … 35 mm²
unplated **209-105** 50

Test plug adapter, for 4 mm Ø test plug

2009-174 100 (4x25)

Test plug, with 500 mm cable

2 mm Ø **210-136** 50
2.3 mm Ø **210-137** 50

Operating tool,

3.5 mm and 2.5 mm blades
2009-309 1

Busbar carrier,

not suitable as end stop,
can be snapped onto DIN-35 rail,
1.5 mm thick
2009-304 100 (4x25)

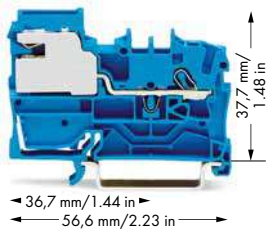
Busbar carrier,

with end stop function and detachable
separator plate,
can be snapped onto DIN-35 rail,
7.5 mm thick
2009-305 25

❻ For all approvals and corresponding ratings, visit www.wago.com.

TOPJOB® S
N-Conductor and Power Distribution Disconnect Terminal Blocks
2002 / 2006 / 2016 Series

0.25 … 2.5 (4) mm² ❶ | 22 … 12 AWG
250 V/4 kV/3
I_N 32 A
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❹ Approvals



Color	Item No.	Pack. Unit
1-conductor N-disconnect terminal block		
blue	**2002-7114**	50
1-conductor power distribution disconnect terminal block		
gray		

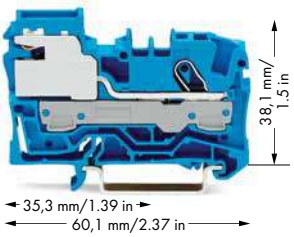
For compatible through/ground conductor terminal blocks and jumpers, see page 27.

Item-Specific Accessories

End and intermediate plate, 0.8 mm thick
2002-7192 100(4x25)

Lock-out, snap-on type,
prevents reclosing of slide link
2003-7300 100(4x25)

0.5 … 6 (10) mm² ❷ | 20 … 8 AWG
250 V/4 kV/3
I_N 51 A
Terminal block width: 7.5 mm / 0.295 in.
13 … 15 mm / 0.55 in.
❹ Approvals



Color	Item No.	Pack. Unit
1-conductor N-disconnect terminal block		
blue	**2006-7114**	50
1-conductor power distribution disconnect terminal block		
gray		

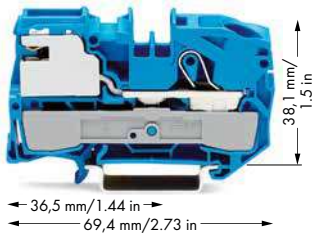
For compatible through/ground conductor terminal blocks and jumpers, see page 30.

Item-Specific Accessories

End and intermediate plate, 1 mm thick
2006-7192 100 (4x25)

Lock-out, snap-on type,
prevents reclosing of slide link
2006-7300 100 (4x25)

0.5 … 16 (25 "f-st") mm² ❸ | 20 … 4 AWG
250 V/4 kV/3
I_N 76 A
Terminal block width: 12 mm / 0.472 in.
18 … 20 mm / 0.75 in.
❹ Approvals



Color	Item No.	Pack. Unit
1-conductor N-disconnect terminal block		
blue	**2016-7114**	25
1-conductor power distribution disconnect terminal block		
gray		

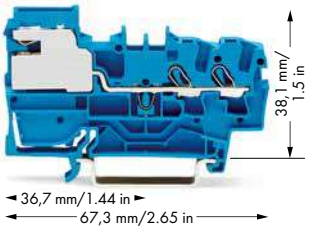
For compatible through/ground conductor terminal blocks and jumpers, see page 32.

Item-Specific Accessories

End and intermediate plate, 1 mm thick
2016-7192 100 (4x25)

Lock-out, snap-on type,
prevents reclosing of slide link
2006-7300 100 (4x25)

Accessories, 2002, 2006 and 2016 Series
Appropriate marking systems: **WMB/Marking Strips/WMB Inline**



Color	Item No.	Pack. Unit
2-conductor N-disconnect terminal block		
blue	**2002-7214**	50
2-conductor power distribution disconnect terminal block		
gray	**2002-7211**	50

Item-Specific Accessories

End and intermediate plate, 0.8 mm thick
2002-7292 100 (4x25)

Busbar carrier,
not suitable as an end stop,
can be snapped onto DIN-35 rail,
1.5 mm thick
2009-304 100 (4x25)

Busbar carrier,
with end stop function and detachable separator plate,
can be snapped onto DIN-35 rail,
7.5 mm thick
2009-305 25

Straight busbar, Cu with tin plating,
10 x 3 mm,
1000 mm long
I_N 140 A **210-133** 1

Cover for N-busbar, transparent,
1000 mm long
777-303 1

Connector,
for N-busbar,
2.5 … 35 mm²
unplated **209-105** 50

Connector, with blue cover,
for N-busbar,
2.5 … 16 mm²
210-281 100 (2x50)

Test plug, with 500 mm cable
2 mm Ø **210-136** 50
2.3 mm Ø **210-137** 50

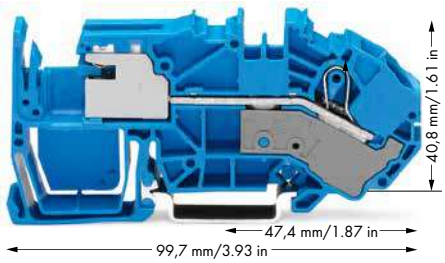
WMB Multi marking system, plain,
10 strips with 10 markers per card,
stretchable from 5 … 5.2 mm
793-5501 5

Operating tool,
3.5 mm and 5.5 mm blades
2009-310 1

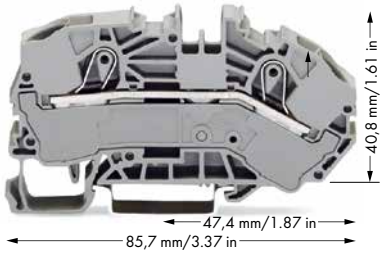
❹ For all approvals and corresponding ratings, visit www.wago.com.

TOPJOB® S
Supply Terminal Blocks for Distribution Cabinets, N-Conductor and Power Distribution Disconnect Terminal Blocks, 2016 Series

0.5 … 16 (25 "f-st") mm² ❸ | 20 … 4 AWG
250 V/4 kV/3
I_N 76 A
Terminal block width: 12 mm / 0.472 in.
18 … 20 mm / 0.75 in.
❹ Approvals



0.5 … 16 (25 "f-st") mm² ❸ 20 … 4 AWG
800 V/8 kV/3
I_N 76 A
Terminal block width: 12 mm / 0.472 in.
18 … 20 mm / 0.75 in.
❹ Approvals



❶ Conductor range: 0.25 … 4 mm² "s+f-st"
Push-in termination: 0.75 … 4 mm² "s"
and 0.75 … 2.5 mm²
"insulated ferrules, 12 mm"

❷ Conductor range: 0.5 … 10 mm² "s+f-st"
Push-in termination: 1.5 … 10 mm² "s"
and 1.5 … 6 mm²
"insulated ferrules, 12 mm"

❸ Conductor range: 0.5 … 16 mm² "s+f-st"
and 25 mm² "f-st"
Push-in termination: 2.5 … 16 mm² "s"
and 2.5 … 16 mm²
"insulated ferrules, 18 mm"

Color	Item No.	Pack. Unit
1-conductor N-disconnect terminal block		
blue	**2016-7714**	20
1-conductor power distribution disconnect terminal block		
gray	**2016-7711**	20

Color	Item No.	Pack. Unit
2-conductor supply terminal blocks for distribution cabinets		
gray	**2016-7601**	20
blue	**2016-7604**	20
2-conductor ground conductor terminal block, 15 mm-high DIN-35 rails shall be used for a current load higher than 76 A.		
green-yellow	**2016-7607**	20

Item-Specific Accessories

End and intermediate plate, 1 mm thick



2016-7792 100 (4x25)

Lock-out, snap-on type,
prevents reclosing of slide link



2006-7300 100 (4x25)

Item-Specific Accessories

End and intermediate plate, 1 mm thick



2016-7692 100 (4x25)

Accessories, 2016 Series Appropriate marking systems: WMB/Marking Strips/WMB Inline

Push-in type jumper bar, insulated,



I_N 76 A, light gray

2-way	**2016-402**	50 (2x25)
3-way	**2016-403**	50 (2x25)
4-way	**2016-404**	50 (2x25)
5-way	**2016-405**	50 (2x25)

Push-in type jumper bar, insulated,



I_N 76 A, light gray

1 to 3	**2016-433**	50 (2x25)
1 to 4	**2016-434**	50 (2x25)
1 to 5	**2016-435**	50 (2x25)

Protective warning marker,



with high-voltage symbol, black,
for 5 terminal blocks

2016-115 50 (2x25)

Finger guard,



touchproof cover protects unused conductor entries

2016-100 100 (4x25)

Straight busbar, Cu with tin plating,



10 x 3 mm,
1000 mm long
I_N 140 A **210-133** 1

Cover for N-busbar,



transparent,
1000 mm long
777-303 1

Testing tap,



for max. 2.5 mm²
2009-182 100 (4x25)

Test plug, with 500 mm cable



2 mm Ø **210-136** 50
2.3 mm Ø **210-137** 50

Test plug adapter,



for 4 mm Ø test plug
2009-174 100 (4x25)

Banana plugs, only for safety extra-low voltage (42 V)



215-212 50
215-311 50
For additional colors, see page 262.

WMB Multi marking system, plain,

10 strips with 10 markers per card,
stretchable from 5 … 5.2 mm
793-5501 5

Marking strip, plain,



11 mm wide,
50 m roll
2009-110 1

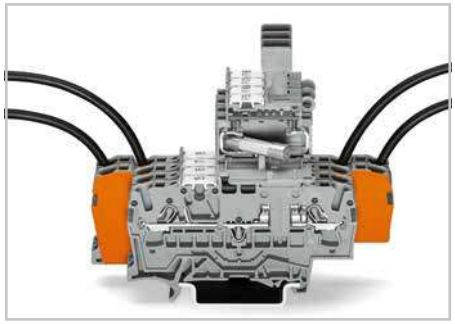
Operating tool,



3.5 mm and 5.5 mm blades
2009-310 1

TOPJOB® S Function Terminal Blocks
– Description and Installation –

Fuse terminal blocks



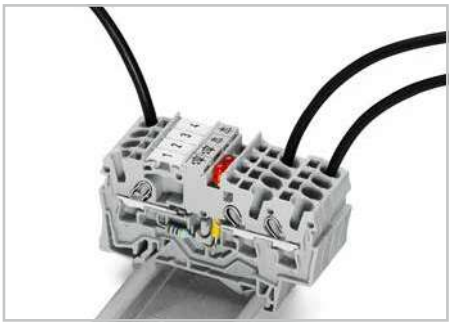
Fuse plug with blown fuse indication on a 2-conductor carrier terminal block

Disconnect/test terminal blocks



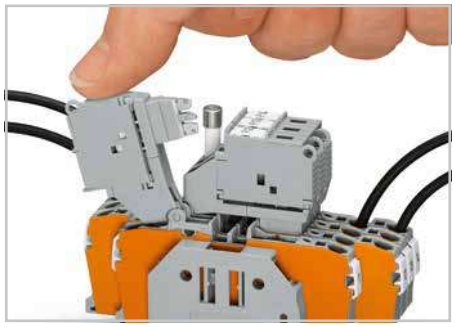
2-conductor disconnect/test terminal block with movable knife disconnect and mechanical interlock – open position

Diode and LED terminal blocks



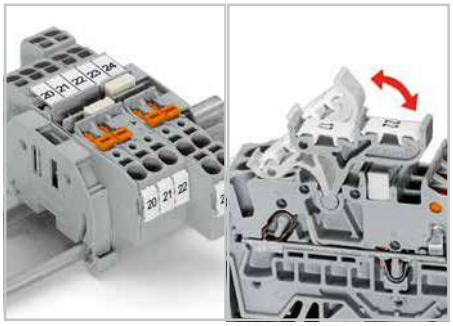
Designing custom circuits:
- via diode terminal blocks (e.g., collective fault signals)
- via LED terminal blocks (e.g., monitoring units)

Fuse replacement 1



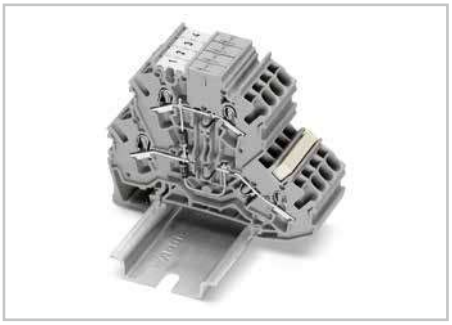
Before replacing the fuse, pivot the fuse holder into the locked open position.

Commoning and marking



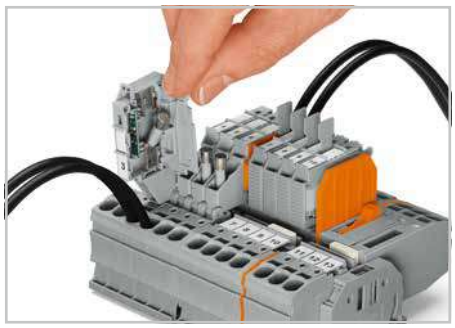
Dual jumper slots, in the same position as the 2002 Series terminal blocks. Commoning options in front of or behind the knife disconnect, depending on the power supply direction; additional marking option via pivoting marker carriers.

Commoning



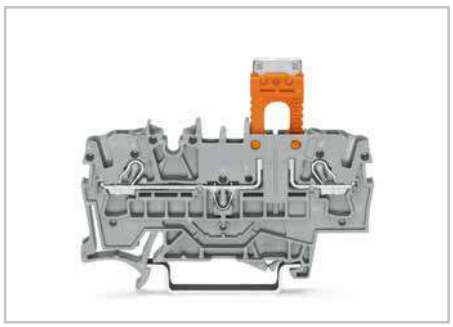
Custom circuit design via push-in type jumper bars. Example shows "lamp test circuit."

Fuse replacement 2



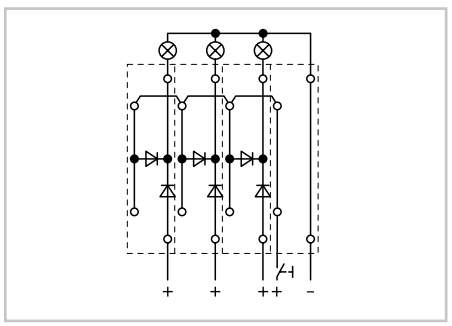
One end of the fuse is automatically ejected from the holder when opening the cover.

Disconnect/test terminal blocks



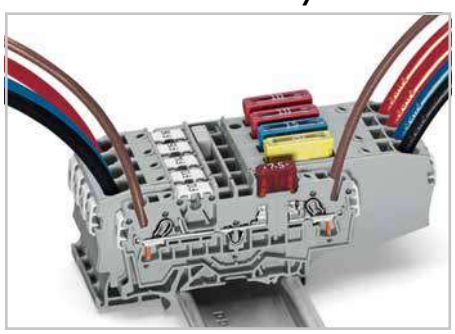
Base terminal block with disconnect plug in parked position

Application



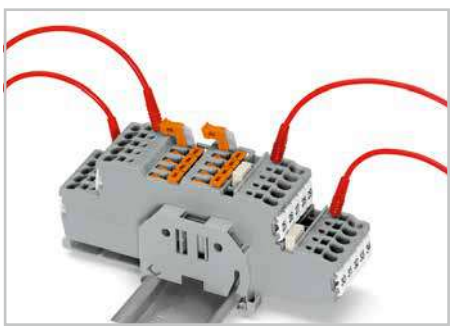
Lamp test circuit

Mini-automotive blade-style fuses



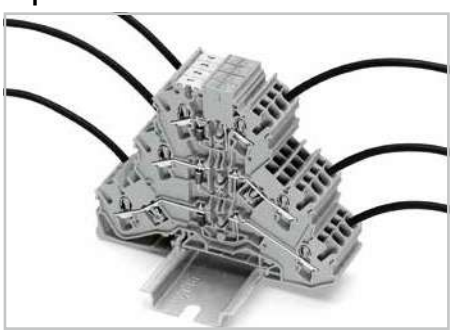
Fuse terminal block for mini-automotive blade-style fuses

Double-deck disconnect terminal blocks



Two disconnect terminal blocks with different potential are accommodated on two levels in a double-deck disconnect terminal block.

Triple-deck diode terminal blocks



Space-saving arrangement

For information on Push-in CAGE CLAMP® connection, see page 14.

TOPJOB® S
2-Conductor Disconnect/Test and Fuse Terminal Blocks,
2002 Series

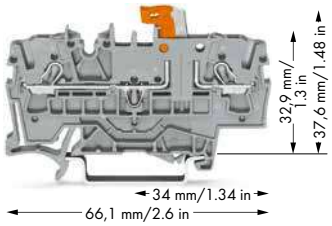
PUSH-IN CAGE CLAMP®

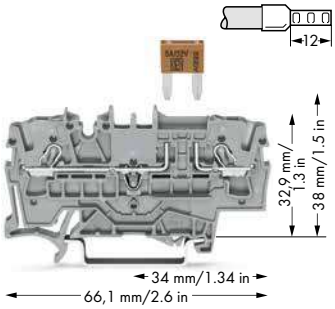
0.25 … 2.5 (4) mm² ❶ | 22 … 12 AWG
400 V/6 kV/3 | 300 V, 15 A
I_N 16 A | 300 V, 10 A
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❸ Approvals

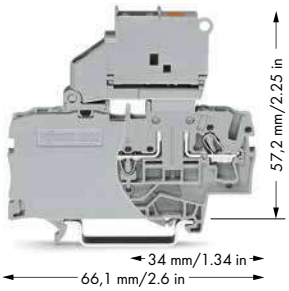
0.25 … 2.5 (4) mm² ❶ | 22 … 12 AWG
400 V/6 kV/3 | 300 V, 10 A
I_N 10 A ❷ | 300 V, 10 A
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❸ Approvals

0.25 … 2.5 (4) mm² ❶ | 22 … 12 AWG
250 V/6 kV/3 | 250 V, 6 A
I_N 6.3 A ❷ | 250 V, 6 A
Terminal block width: 6.2 mm / 0.244 in.
10 … 12 mm / 0.43 in.
❸ Approvals

❶ Conductor range: 0.25 … 4 mm² "s+f-st"
Push-in termination: 0.75 … 4 mm² "s" and
0.75 … 2.5 mm² "insulated ferrule, 12 mm"







Color	Item No.	Pack. Unit
2-conductor disconnect/test terminal block		
gray	**2002-1671**	50
blue	**2002-1674**	50
orange	**2002-1672**	50
2-conductor disconnect/test terminal block with mechanical interlock		
gray	**2002-1671/401-000**	50
blue	**2002-1674/401-000**	50
orange	**2002-1672/401-000**	50
2-conductor through terminal block, same profile		
gray	**2002-1601**	50
blue	**2002-1604**	50
orange	**2002-1602**	50

Color	Item No.	Pack. Unit
2-conductor fuse terminal block, for blade-style fuses per DIN 72581-3f, ISO 8820-3		
gray	**2002-1681**	50
- Individual arrangement: 10 A		
- Block arrangement: 5 A		
Protection against direct contact must be observed for 42 V and higher voltages.		
2-conductor fuse terminal block for mini-automotive blade-style fuses, with test point and additional jumper slot, without blown fuse indication		
gray	**2002-1981**	50

Color	Item No.	Pack. Unit
2-conductor fuse terminal block with end plate, with blown fuse indication, for miniature metric fuses, gray		
12 … 30 V ≃	**2002-1611/1000-541**	50
30 … 65 V ≃	**2002-1611/1000-542**	50
120 V ≃	**2002-1611/1000-867**	50
230 V ≃	**2002-1611/1000-836**	50
2-conductor fuse terminal block with end plate, without blown fuse indication, gray		
	2002-1611	50

Item-Specific Accessories

End and intermediate plate, 1 mm thick



orange	**2002-1692**	100 (4x25)
gray	**2002-1691**	100 (4x25)

End and intermediate plate, 1 mm thick



orange	**2002-1692**	100 (4x25)
gray	**2002-1691**	100 (4x25)

End plate for fuse terminal blocks, 2 mm thick



orange	**2002-992**	100 (4x25)
gray	**2002-991**	100 (4x25)

Accessories, 2002 Series

Appropriate marking systems: **WMB/Marking Strips/WMB Inline/Miniature WSB**

Adjacent jumper for continuous commoning, insulated,

I_N 25 A, **light gray**

2-way	**2002-400**	100 (4x25)
1 to 3	**2002-423**	100 (4x25)

Push-in type jumper bar, insulated,



I_N 25 A, light gray

2-way	**2002-402**	200 (8x25)
:	:	
10-way	**2002-410**	100 (4x25)

● . . ./**000-005** ● . . ./**000-006**

Staggered jumper, insulated,



I_N 25 A, light gray

2-way	**2002-472**	100 (4x25)
3-way	**2002-473**	100 (4x25)
:	:	
12-way	**2002-482**	50 (2x25)

Insulation stop, 5 pcs/strip



○	**2002-171**	0.25-0.5 mm²
●	**2002-172**	0.75-1 mm²
		200 (8x25)

Test plug adapter, for 4 mm Ø test plug



	2009-174	100 (4x25)
Testing tap, for max. 2.5 mm²		
	2009-182	100 (4x25)

Test plug, with 500 mm cable



● 2 mm Ø	**210-136**	50
● 2.3 mm Ø	**210-137**	50

Push-in type jumper bar, insulated,



I_N 25 A, light gray

1 to 3	**2002-433**	200 (8x25)
1 to 4	**2002-434**	200 (8x25)
1 to 5	**2002-435**	100 (4x25)
:	:	
1 to 10	**2002-440**	100 (4x25)

Modular TOPJOB® S connector, can be snapped together, I_N 24 A, for jumper contact slot



○	**2002-511**	100 (4x25)

Spacer module, can be snapped together

○	**2002-549**	100 (4x25)

Protective warning marker, with high-voltage symbol, for 5 terminal blocks



●	**2002-115**	100 (4x25)

Operating tool with a partially insulated shaft, type 2, (3.5 x 0.5) mm blade



	210-720	1

Fuse terminal blocks with a width of 6.2 mm can be assembled adjacently.
If there is **no** adjacent fuse or disconnect terminal block at the end of the assembly, an end plate must be used.

When selecting miniature metric fuses, make sure that the maximum power loss listed below is not exceeded.
The power loss is determined according to IEC or EN 60947-7-3/VDE 0611-6 at 23 °C.
The temperature rise of the terminal blocks must be checked according to their application and mounting.
Higher ambient temperatures place additional strain on fuse cartridges. Therefore, in such applications, the rated current must be reduced if necessary. More details are available from the manufacturers.

Miniature metric fuses (5 x 20 mm)

Series / Item No.	Overload and short circuit protection		Short circuit protection only	
	Individual arrangement	Group arrangement	Individual arrangement	Group arrangement
	Fuse terminal blocks			
2002-1611 **2002-1811**	1.6 W	1.6 W	2.5 W	2.5 W
2002-1811/….-…. **2002-1611/….-….**	1.6 W	1.6 W	2.5 W	2.5 W

❷ Nominal voltage and current are given by the fuse or blown fuse indicator.
❸ For all approvals and corresponding ratings, visit www.wago.com.

For technical information and abbreviations, see technical section.

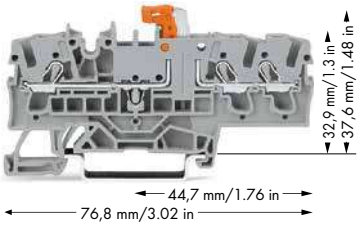
TOPJOB® S
3-Conductor Disconnect/Test and Fuse Terminal Blocks,
2002 Series

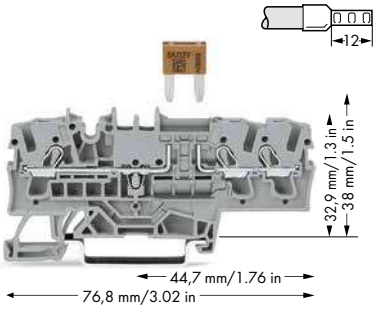
0.25 … 2.5 (4) mm² ❶ | 22 … 12 AWG
400 V/6 kV/3
I_N 16 A | 300 V, 15 A | 300 V, 10 A
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❸ Approvals

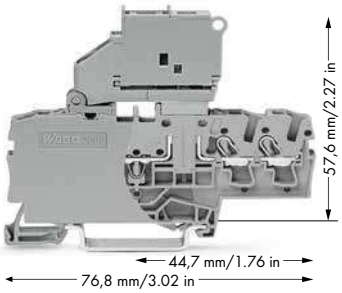
0.25 … 2.5 (4) mm² ❶ | 22 … 12 AWG
400 V/6 kV/3
I_N 10 A ❷ | 300 V, 10 A | 300 V, 10 A
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❸ Approvals

0.25 … 2.5 (4) mm² ❶ | 22 … 12 AWG
250 V/6 kV/3
I_N 6.3 A ❷
Terminal block width: 6.2 mm / 0.244 in.
10 … 12 mm / 0.43 in.
❸ Approvals

❶ Conductor range: 0.25 … 4 mm² "s+f-st"
Push-in termination: 0.75 … 4 mm² "s" and
0.75 … 2.5 mm² "insulated ferrule, 12 mm"







Color	Item No.	Pack. Unit
3-conductor disconnect/test terminal block		
gray	**2002-1771**	50
blue	**2002-1774**	50
orange	**2002-1772**	50
3-conductor disconnect/test terminal block with mechanical interlock		
gray	**2002-1771/401-000**	50
blue	**2002-1774/401-000**	50
orange	**2002-1772/401-000**	50
3-conductor through terminal block, same profile		
gray	**2002-1701**	50
blue	**2002-1704**	50
orange	**2002-1702**	50

Color	Item No.	Pack. Unit
3-conductor fuse terminal block, for blade-style fuses per DIN 72581-3f, ISO 8820-3		
gray	**2002-1781**	50
- Individual arrangement: 10 A		
- Block arrangement: 5 A		
Protection against direct contact must be observed for 42 V and higher voltages.		

Color	Item No.	Pack. Unit
3-conductor fuse terminal block with end plate, with blown fuse indication by LED, gray		
12 … 30 V ≃	**2002-1711/1000-541**	50
30 … 65 V ≃	**2002-1711/1000-542**	50
120 V ≃	**2002-1711/1000-867**	50
230 V ≃	**2002-1711/1000-836**	50
3-conductor fuse terminal block with end plate, without blown fuse indication		
gray	**2002-1711**	50

Item-Specific Accessories

End and intermediate plate, 1 mm thick



orange	**2002-1792**	100 (4x25)
gray	**2002-1791**	100 (4x25)

End and intermediate plate, 1 mm thick



orange	**2002-1792**	100 (4x25)
gray	**2002-1791**	100 (4x25)

End plate for fuse terminal blocks, 2 mm thick



orange	**2002-992**	100 (4x25)
gray	**2002-991**	100 (4x25)

Accessories, 2002 Series
Appropriate marking systems: **WMB/Marking Strips/WMB Inline/Miniature WSB**

Adjacent jumper for continuous commoning, insulated,

I_N 25 A, **light gray**

2-way	**2002-400**	100 (4x25)
1 to 3	**2002-423**	100 (4x25)

Push-in type jumper bar, insulated,



I_N 25 A, light gray

2-way	**2002-402**	200 (8x25)
:	:	
10-way	**2002-410**	100 (4x25)

● . . ./**000-005** ● . . ./**000-006**

Staggered jumper, light gray, insulated, I_N 25 A



2-way	**2002-472**	100 (4x25)
3-way	**2002-473**	100 (4x25)
:	:	
12-way	**2002-482**	50 (2x25)

Insulation stop, 5 pcs/strip



○	**2002-171**	0.25–0.5 mm²
●	**2002-172**	0.75–1 mm²
		200 (8x25)

Test plug adapter, for 4 mm Ø test plug



	2009-174	100 (4x25)

Testing tap, for max. 2.5 mm²

	2009-182	100 (4x25)

Double-deck marker carrier, pivoting



●	**2002-121**	50 (2x25)

Push-in type jumper bar, insulated,



I_N 25 A, light gray

1 to 3	**2002-433**	200 (8x25)
1 to 4	**2002-434**	200 (8x25)
1 to 5	**2002-435**	100 (4x25)
:	:	
1 to 10	**2002-440**	100 (4x25)

Modular TOPJOB® S L-test plug, can be snapped together, I_N 18 A, for conductor entry



●	**2002-611**	100 (4x25)

Spacer module, can be snapped together

●	**2002-649**	100 (4x25)

Protective warning marker, with high-voltage symbol, for 5 terminal blocks



●	**2002-115**	100 (4x25)

WMB Multi marking system, plain, 10 strips with 10 markers per card, stretchable from 5 … 5.2 mm

○	**793-5501**	5

Push-in type jumper bar, insulated,



I_N 25 A, light gray

2-way	**2004-402**	200 (8x25)
:	:	
10-way	**2004-410**	100 (4x25)

Push-in type jumper bar, insulated,



I_N 25 A, light gray

1 … 3	**2004-433**	200 (8x25)
:	:	
1 … 10	**2004-440**	100 (4x25)

Note: Due to the 6.2 mm width of fuse disconnect terminal blocks with pivoting fuse holder, 2004 Series Push-In Type Jumper Bars must be used.

Test plug, with 500 mm cable



● 2 mm Ø	**210-136**	50
● 2.3 mm Ø	**210-137**	50

Insulated ferrules, extra long,



for TOPJOB® S terminal blocks,
see page 259

Operating tool with a partially insulated shaft,



type 2, (3.5 x 0.5) mm blade

	210-720	1

❷ Nominal voltage and current are given by the fuse or blown fuse indicator.
❸ For all approvals and corresponding ratings, visit www.wago.com.

For technical information and abbreviations, see technical section.

PUSH-IN CAGE CLAMP®

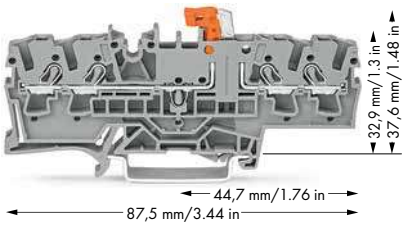
TOPJOB® S
4-Conductor Disconnect/Test and Fuse Terminal Blocks,
2002 Series

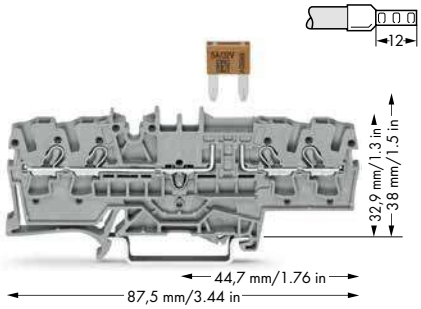
0.25 … 2.5 (4) mm² ❶ | **22 … 12 AWG**
400 V/6 kV/3 | **300 V, 15 A**
I_N 16 A | **300 V, 15 A**
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❸ Approvals

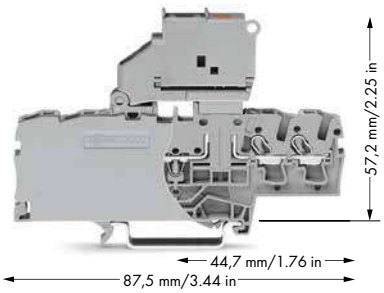
0.25 … 2.5 (4) mm² ❶ | **22 … 12 AWG**
400 V/6 kV/3 | **300 V, 10 A**
I_N 10 A ❷ | **300 V, 10 A**
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❸ Approvals

0.25 … 2.5 (4) mm² ❶ | **22 … 12 AWG**
250 V/6 kV/3 | **250 V, 6 A**
I_N 6.3 A ❷ | **250 V, 6 A**
Terminal block width: 6.2 mm / 0.244 in.
10 … 12 mm / 0.43 in.
❸ Approvals

❶ Conductor range: 0.25 … 4 mm² "s+f-st"
Push-in termination: 0.75 … 4 mm² "s" and
0.75 … 2.5 mm² "insulated ferrule, 12 mm"







Color	Item No.	Pack. Unit
4-conductor disconnect/test terminal block		
gray	**2002-1871**	50
blue	**2002-1874**	50
orange	**2002-1872**	50
4-conductor disconnect/test terminal block with mechanical interlock		
gray	**2002-1871/401-000**	50
blue	**2002-1874/401-000**	50
orange	**2002-1872/401-000**	50
4-conductor through terminal block, same profile		
gray	**2002-1801**	50
blue	**2002-1804**	50
orange	**2002-1802**	50

Color	Item No.	Pack. Unit
4-conductor fuse terminal block, for blade-style fuses per DIN 72581-3f, ISO 8820-3		
gray	**2002-1881**	50
- Individual arrangement: 10 A		
- Block arrangement: 5 A		
Protection against direct contact must be observed for 42 V and higher voltages.		

Color	Item No.	Pack. Unit
4-conductor fuse terminal block with end plate, with blown fuse indication by LED, gray		
12 … 30 V ≃	**2002-1811/1000-541**	50
30 … 65 V ≃	**2002-1811/1000-542**	50
120 V ≃	**2002-1811/1000-867**	50
230 V ≃	**2002-1811/1000-836**	50
4-conductor fuse terminal block with end plate, without blown fuse indication		
gray	**2002-1811**	50

Item-Specific Accessories

End and intermediate plate, 1 mm thick



	2002-1892	100 (4x25)
	2002-1891	100 (4x25)

End and intermediate plate, 1 mm thick



	2002-1892	100 (4x25)
	2002-1891	100 (4x25)

End plate for fuse terminal blocks, 2 mm thick



	2002-992	100 (4x25)
	2002-991	100 (4x25)

Accessories, 2002 Series

Appropriate marking systems: **WMB/Marking Strips/WMB Inline/Miniature WSB**

Adjacent jumper for continuous commoning, insulated,



I_N 25 A, **light gray**

2-way	**2002-400**	100 (4x25)
1 to 3	**2002-423**	100 (4x25)

Push-in type jumper bar, insulated,



I_N 25 A, light gray

2-way	**2002-402**	200 (8x25)
:	:	
10-way	**2002-410**	100 (4x25)

● . . ./**000-005** ● . . ./**000-006**

Staggered jumper, insulated,



I_N 25 A, light gray

2-way	**2002-472**	100 (4x25)
3-way	**2002-473**	100 (4x25)
:	:	
12-way	**2002-482**	50 (2x25)

Insulation stop, 5 pcs/strip



○	**2002-171**	0.25–0.5 mm²
●	**2002-172**	0.75–1 mm²
		200 (8x25)

Test plug adapter, for 4 mm Ø test plug



	2009-174	100 (4x25)

Testing tap, for max. 2.5 mm²

	2009-182	100 (4x25)

Double-deck marker carrier, pivoting



●	**2002-121**	50 (2x25)

Push-in type jumper bar, insulated,



I_N 25 A, light gray

1 to 3	**2002-433**	200 (8x25)
1 to 4	**2002-434**	200 (8x25)
1 to 5	**2002-435**	100 (4x25)
:	:	
1 to 10	**2002-440**	100 (4x25)

Modular TOPJOB® S connector, can be snapped together, I_N 24 A, for jumper contact slot



●	**2002-511**	100 (4x25)

Spacer module, can be snapped together

●	**2002-549**	100 (4x25)

Protective warning marker, with high-voltage symbol, for 5 terminal blocks



●	**2002-115**	100 (4x25)

WMB Multi marking system, plain, 10 strips with 10 markers per card, stretchable from 5 … 5.2 mm

○	**793-5501**	5

Push-in type jumper bar, insulated,



I_N 25 A, light gray

2-way	**2004-402**	200 (8x25)
:	:	
10-way	**2004-410**	100 (4x25)

Push-in type jumper bar, insulated,



I_N 25 A, light gray

1 … 3	**2004-433**	200 (8x25)
:	:	
1 … 10	**2004-440**	100 (4x25)

Note: Due to the 6.2 mm width of fuse disconnect terminal blocks with pivoting fuse holder, 2004 Series Push-In Type Jumper Bars must be used.

Test plug, with 500 mm cable



● 2 mm Ø	**210-136**	50
● 2.3 mm Ø	**210-137**	50

Insulated ferrules, extra long,



for TOPJOB® S terminal blocks,
see page 259

Operating tool with a partially insulated shaft,



type 2, (3.5 x 0.5) mm blade

	210-720	1

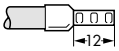
❷ Nominal voltage and current are given by the fuse or blown fuse indicator.
❸ For all approvals and corresponding ratings, visit www.wago.com.

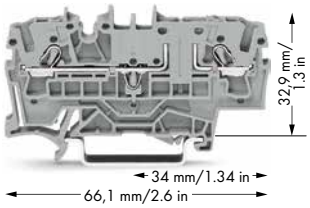
For technical information and abbreviations, see technical section.

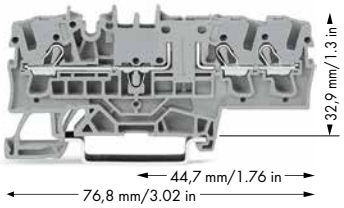
TOPJOB® S
2-, 3- and 4-Conductor Carrier Terminal Blocks, 2002 Series
Fuse Plugs, 2004 Series, Double-fuse Plugs, 2003 Series

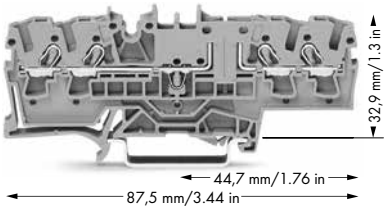
0.25 … 2.5 (4) mm² ❶ | 22 … 12 AWG
400 V/6 kV/3 | 300 V, 15 A
I_N 6.3 A | 300 V, 10 A
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❸ Approvals

❶ Conductor range: 0.25 … 4 mm² "s+f-st"
Push-in termination: 0.75 … 4 mm² "s" and
0.75 … 2.5 mm² "insulated ferrule, 12 mm"









Color	Item No.	Pack. Unit
2-conductor carrier terminal block		
gray	**2002-1661**	50
3-conductor carrier terminal block		
gray	**2002-1761**	50
4-conductor carrier terminal block		
gray	**2002-1861**	50

Item-Specific Accessories

End and intermediate plate, 1 mm thick



	2002-1692	100 (4x25)
	2002-1691	100 (4x25)

End and intermediate plate, 1 mm thick



	2002-1792	100 (4x25)
	2002-1791	100 (4x25)

End and intermediate plate, 1 mm thick



	2002-1892	100 (4x25)
	2002-1891	100 (4x25)

Accessories, 2002 Series

Appropriate marking systems: **WMB/Marking Strips/WMB Inline**

Adjacent jumper for continuous commoning, insulated,

I_N 25 A, **light gray**

2-way	**2002-400**	100 (4x25)
1 to 3	**2002-423**	100 (4x25)

Push-in type jumper bar, insulated,



I_N 25 A, light gray

2-way	**2002-402**	200 (8x25)
3-way	**2002-403**	200 (8x25)
4-way	**2002-404**	200 (8x25)
:	:	
10-way	**2002-410**	100 (4x25)

● . . ./**000-005** ● . . ./**000-006**

Staggered jumper, insulated,



I_N 25 A, light gray

2-way	**2002-472**	100 (4x25)
3-way	**2002-473**	100 (4x25)
4-way	**2002-474**	100 (4x25)
5-way	**2002-475**	50 (2x25)
:	:	
12-way	**2002-482**	50 (2x25)

Insulation stop, 5 pcs/strip



○	**2002-171**	0.25–0.5 mm² 200 (8x25)
●	**2002-172**	0.75–1 mm² 200 (8x25)

Test plug adapter, for 4 mm Ø test plug



2009-174 100 (4x25)

Testing tap, for max. 2.5 mm²

2009-182 100 (4x25)

Marking strips, plain



11 mm wide,
50 m roll
○ **2009-110** 1

End plate for fuse terminal blocks, 2 mm thick



	2002-992	100 (4x25)
	2002-991	100 (4x25)

Push-in type jumper bar, insulated,



I_N 25 A, light gray

1 to 3	**2002-433**	200 (8x25)
1 to 4	**2002-434**	200 (8x25)
1 to 5	**2002-435**	100 (4x25)
:	:	
1 to 10	**2002-440**	100 (4x25)

Modular TOPJOB® S L-test plug, can be snapped together, I_N 18 A, for conductor entry



● **2002-611** 100 (4x25)

Spacer module, can be snapped together

● **2002-649** 100 (4x25)

Disconnect plug for fuse terminal blocks, suitable when using a fuse terminal block as disconnect terminal block



2002-401 100 (4x25

Protective warning marker, with high-voltage symbol, for 5 terminal blocks



● **2002-115** 100 (4x25)

Banana plugs, only for safety extra-low voltage (42 V)



●	**215-212**	50
●	**215-311**	50

For additional colors, see page 262.

WMB Multi marking system, plain, 10 strips with 10 markers per card, stretchable from 5 … 5.2 mm

○ **793-5501** 5

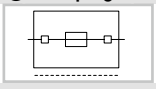
Operating tool with a partially insulated shaft, type 2, (3.5 x 0.5) mm blade



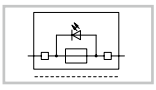
210-720 1



❹ Fuse plug, with pull-tab,

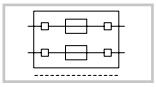


for 5 x 20 mm miniature metric fuses
2004-911 50



with LED, can be used in both switching directions
LED, AC/DC 12 … 30 V
2004-911/1000-541 50
LED, AC/DC 30 … 65 V
2004-911/1000-542 50
LED, AC/DC 120 … 250 V
2004-911/1000-836 50

Double-fuse plug, for 2x 5 x 20 mm



type 1 ❺, 2-pole, 10.4 mm
2003-911 100
type 2 ❺, 2-pole, 10.4 mm, LED 250 V
2003-911/1000-923 100

Shorting link, 5 x 20 mm, 6.3 A, suitable when using the fuse plug as a disconnect plug



281-503 250 (10x25)

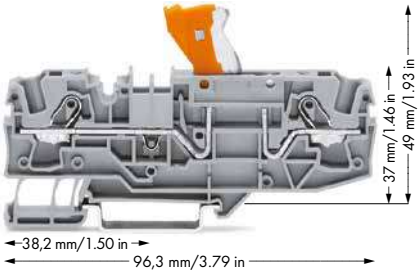
For **pluggable diode and LED modules,** see page 28.
For **empty component plug housings,** see page 236.

PUSH-IN CAGE CLAMP®

TOPJOB® S
Disconnect and Fuse Terminal Blocks 6 (10) mm²
2006 Series

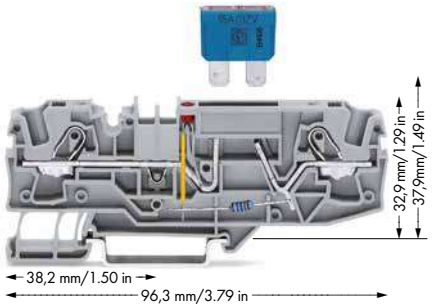
0.5 … 6 (10) mm² ❶ | 20 … 8 AWG
800 V/6 kV/3
I_N 30 A
Terminal block width: 7.5 mm / 0.295 in.
13 … 15 mm / 0.55 in.
❸ Approvals

❶ see page 29



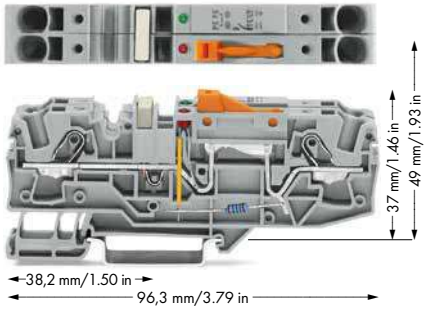
Color	Item No.	Pack. Unit
2-conductor disconnect terminal block, with test point, orange disconnect link		
gray	**2006-1671**	25
blue	**2006-1674**	25
2-conductor through terminal block, same profile		
gray	**2006-1601**	25
blue	**2006-1604**	25

0.2 … 6 (10) mm² ❶ | 20 … 8 AWG
800 V/8 kV/3 ❷
I_N 25/30 A ❷
Terminal block width: 7.5 mm / 0.295 in.
13 … 15 mm / 0.55 in.
❸ Approvals



Color	Item No.	Pack. Unit
2-conductor fuse terminal block for mini-automotive blade-style fuses, with blown fuse indication by LED, with test point, gray		
12 V		
Circuit I	**2006-1681/1000-429**	25
Circuit II	**2006-1681/1000-449**	25
24 V		
Circuit I	**2006-1681/1000-413**	25
Circuit II	**2006-1681/1000-434**	25
48 V		
Circuit I	**2006-1681/1000-414**	25
Circuit II	**2006-1681/1000-435**	25
without blown-fuse indication, with test option		
gray	**2006-1681**	25

0.5 … 6 (10) mm² ❶ | 20 … 8 AWG
500 V/6 kV/3
I_N 30 A
Terminal block width: 15 mm / 0.59 in.
13 … 15 mm / 0.55 in.
❸ Approvals



Color	Item No.	Pack. Unit
Ground conductor disconnect terminal block, gray		
24 V AC/DC	**2006-1671/1000-848**	12
48 V AC/DC	**2006-1671/1000-849**	12
120 V AC/DC	**2006-1671/1000-850**	12
230 V AC/DC	**2006-1671/1000-851**	12

Item-Specific Accessories

End and intermediate plate, 1 mm thick



2006-1692	100 (4x25)
2006-1691	100 (4x25)

End and intermediate plate, 1 mm thick



2006-1692	100 (4x25)
2006-1691	100 (4x25)

Accessories, 2006 Series

Appropriate marking systems:
WMB/Marking Strips/WMB Inline

Push-in type jumper bar, insulated,



I_N 41 A, light gray

2-way	**2006-402**	50 (2x25)
3-way	**2006-403**	50 (2x25)
4-way	**2006-404**	50 (2x25)
5-way	**2006-405**	50 (2x25)

Push-in type jumper bar, insulated,



I_N 41 A, light gray

1 to 3	**2006-433**	50 (2x25)
1 to 4	**2006-434**	50 (2x25)
1 to 5	**2006-435**	50 (2x25)

Disconnect plug for fuse terminal blocks,



suitable when using a fuse terminal block as disconnect terminal block

2006-401	100 (4x25)

Protective warning marker, with high-voltage symbol,



for 5 terminal blocks

2006-115	100 (4x25)

Disconnect plug for carrier terminal blocks, suitable when using a carrier terminal block as disconnect terminal block



2006-401/000-005	100 (4x25)

Test plug adapter, for 4 mm Ø test plug



2009-174	100 (4x25)

Testing tap, for max. 2.5 mm²

2009-182	100 (4x25)

Blind plug for fuse terminal blocks,



indicates a disconnection

2006-451	100 (4x25)

Banana plugs, only for safety extra-low voltage (42 V)



215-212	50
215-311	50

For additional colors, see page 262.

Blade-style fuses,



per DIN 72581-3c/ISO 8820

(not offered by WAGO)

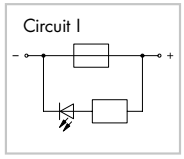
Overcurrent circuit breaker*,

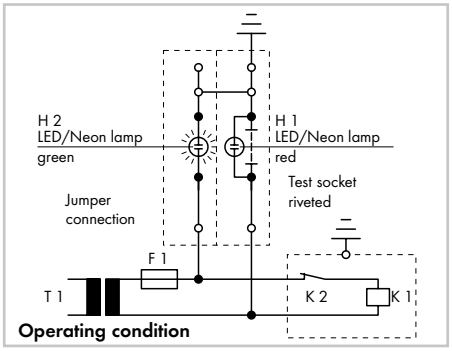


thermal

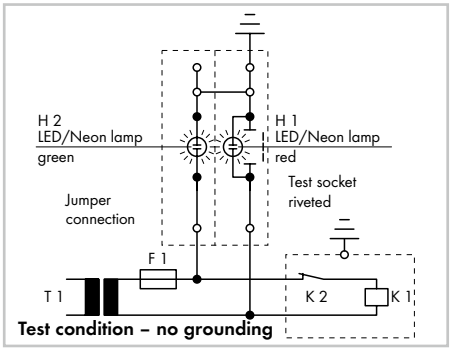
(not offered by WAGO)

*WAGO recommends using overcurrent circuit breakers from ETA, Elektrotechnische Apparate GmbH, Postfach 1061, D-90514 Altdorf/Nürnberg;
Types 1170-02, 1621-21 or 1610-22; Individual or block arrangement up to 25 A for 4 mm² conductors.

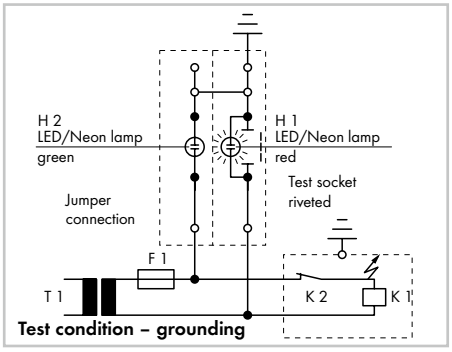




Slide link closed, auxiliary circuit grounded, green LED/neon lamp illuminates.



Slide link open, auxiliary circuit not grounded.

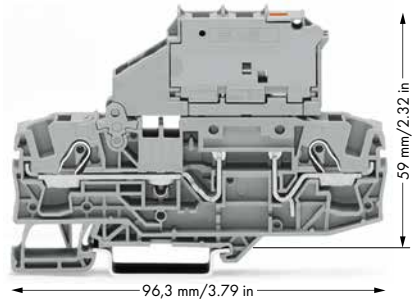


Slide link open, auxiliary circuit not grounded, red LED/neon lamp illuminates.

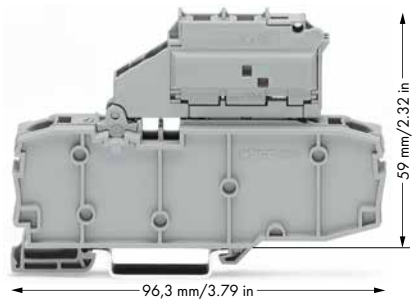
❷ Nominal voltage and current are given by the fuse or blown fuse indicator.
❸ For all approvals and corresponding ratings, visit www.wago.com.

TOPJOB® S
Fuse Disconnect Terminal Blocks with Pivoting Fuse Holder, for 5 x 20 mm, 5 x 30 mm and ¼" x 1¼" Miniature Metric Fuses, 2006 Series

0.5 ... 6 (10) mm² ❶ | 20 ... 8 AWG
800 V/8 kV/3 ❷ | 600 V, 15 A
I_N 10 A
Terminal block width: 7.5 mm / 0.295 in.
13 ... 15 mm / 0.55 in.
❸ Approvals



0.5 ... 6 (10) mm² ❶ | 20 ... 8 AWG
800 V/8 kV/3 ❷ | 600 V, 15 A
I_N 10 A
Terminal block width: 10.4 mm / 0.409 in.
13 ... 15 mm / 0.55 in.
❸ Approvals



❶ Conductor range: 0.5 ... 10 mm² "s+f-st"
Push-in termination: 1 ... 10 mm² "s"
and 1.5 ... 6 mm²
"insulated ferrules, 12 mm"

❷ 800 V = Rated voltage
8 kV = Rated impulse voltage
3 = Pollution degree

Color	Item No.	Pack. Unit
2-conductor fuse disconnect terminal block with pivoting fuse holder, with blown fuse indication, nominal voltage/current given by the fuse, for 5 x 20 mm miniature metric fuse		
gray	**2006-1611**	25
for 5 x 30 mm miniature metric fuse		
gray	**2006-1621**	25
for ¼" x 1¼" miniature metric fuse		
gray	**2006-1631**	25
with blown fuse indication by LED, nominal voltage/current given by LED or fuse, leakage current in case of blown fuse: LED 2 mA, for 5 x 20 mm miniature metric fuse		
12 ... 30 V	**2006-1611/1000-541**	25
30 ... 65 V	**2006-1611/1000-542**	25
120 V	**2006-1611/1000-867**	25
230 V	**2006-1611/1000-836**	25
for 5 x 30 mm miniature metric fuse		
12 ... 30 V	**2006-1621/1000-541**	25
30 ... 65 V	**2006-1621/1000-542**	25
120 V	**2006-1621/1000-867**	25
230 V	**2006-1621/1000-836**	25
380 ... 500 V	**2006-1621/1000-859**	25
for ¼" x 1¼" miniature metric fuse		
12 ... 30 V	**2006-1631/1000-541**	25
30 ... 65 V	**2006-1631/1000-542**	25
120 V	**2006-1631/1000-867**	25
230 V	**2006-1631/1000-836**	25
380 ... 500 V	**2006-1631/1000-859**	25

Color	Item No.	Pack. Unit
2-conductor fuse disconnect terminal block with pivoting fuse holder and end plate, with blown fuse indication, nominal voltage/current given by the fuse, for ¼" x 1¼" miniature metric fuse		
gray	**2006-1631/099-000**	25
with blown fuse indication by LED, nominal voltage/current given by LED or fuse, leakage current in case of blown fuse: LED 2 mA, for ¼" x 1¼" miniature metric fuse		
12 ... 30 V	**2006-1631/1099-541**	25
30 ... 65 V	**2006-1631/1099-542**	25
120 V	**2006-1631/1099-867**	25
230 V	**2006-1631/1099-836**	25
380 ... 500 V	**2006-1631/1099-859**	25

Accessories, 2006 Series (7.5 mm-wide terminal blocks)

Push-in type jumper bar, insulated,

I_N 41 A, light gray

2-way	**2006-402**	50 (2x25)
3-way	**2006-403**	50 (2x25)
4-way	**2006-404**	50 (2x25)
5-way	**2006-405**	50 (2x25)

Push-in type jumper bar, insulated,

I_N 41 A, light gray

1 to 3	**2006-433**	50 (2x25)
1 to 4	**2006-434**	50 (2x25)
1 to 5	**2006-435**	50 (2x25)

Star point jumper, insulated,

$I_N = I_N$ terminal block, light gray

1-3-5	**2006-405/011-000**	50 (2x25)

Protective warning marker,
❹

with high-voltage symbol, black, for 5 terminal blocks

	2006-115	100 (4x25)

Accessories, 2006 Series (10.4 mm-wide terminal blocks)

***Note:** Due to the 10.4 mm width of fuse disconnect terminal blocks with a pivoting fuse holder, 2002 Series Push-In Type Jumper Bars must be used.

Push-in type jumper bar, insulated,

I_N 25 A, light gray

1 to 2*	**2002-433**	200 (8x25)
1 to 3*	**2002-435**	100 (4x25)
1 to 4*	**2002-437**	100 (4x25)
1 to 5*	**2002-439**	100 (4x25)

Star point jumper, insulated,

$I_N = I_N$ terminal block, light gray

1-2-3*	**2002-405/011-000**	100 (4x25)

Item-Specific Accessories

Appropriate marking systems: **WMB/Marking Strips**

End and intermediate plate, 1 mm thick


	2006-1692	100 (4x25)
	2006-1691	100 (4x25)

End plate for fuse terminal blocks, 2 mm thick


	2006-992	100 (4x25)
	2006-991	100 (4x25)

End plate for fuse terminal blocks, 2 mm thick


	2006-992	100 (4x25)
	2006-991	100 (4x25)

Accessories, 2006 Series

WMB Multi marking system, plain,

10 strips with 10 markers per card, stretchable from 5 ... 5.2 mm

	793-5501	5

Screwless end stop,

for DIN-35 rail, 6 mm wide

	249-116	100 (4x25)

❸ For all approvals and corresponding ratings, visit www.wago.com.

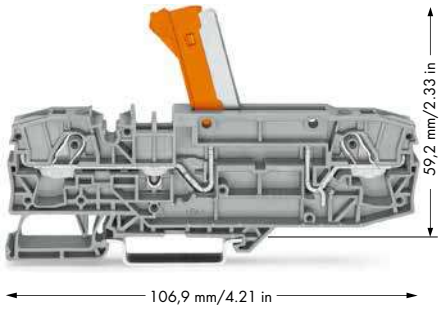
For technical information and abbreviations, see technical section.

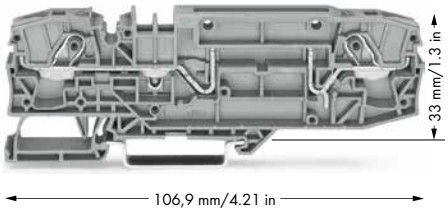
TOPJOB® S

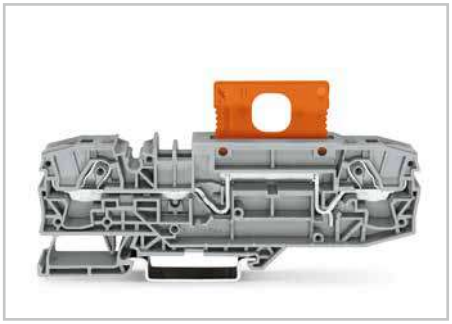
PUSH-IN CAGE CLAMP®

Disconnect/Test Terminal Blocks, 1500 VDC, Carrier Terminal Blocks and Through Terminal Blocks of Same Profile 6 (10) mm² / 30 A, 2006 Series

0.5 … 6 (10) mm² ❶ | 20 … 8 AWG
AC/DC 1000 V/ DC 1500 V/12 kV/3 ❷
I_N 30 A 600 V, 30 A, 1000 V, 30 A
Terminal block width: 15 mm / 0.59 in.
13 … 15 mm / 0.55 in.
❸ Approvals

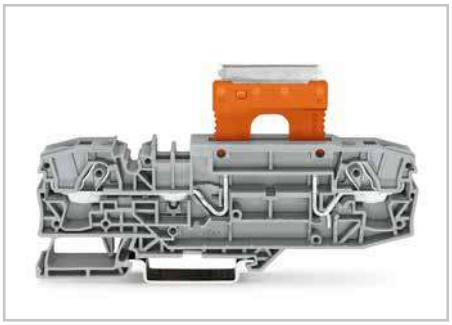





Orange disconnect plug (2006-8401) in operating position

Color	Item No.	Pack. Unit
2-conductor disconnect/test terminal block, with test point, orange disconnect link		
gray	**2006-8671**	12
blue	**2006-8674**	12
2-conductor through terminal block, with test point, same profile as 2-conductor disconnect terminal block		
gray	**2006-8601**	12
blue	**2006-8604**	12

Color	Item No.	Pack. Unit
2-conductor carrier terminal block, with test point		
gray	**2006-8661**	12
blue	**2006-8664**	12


Orange disconnect plug (2006-8401) in "visible disconnection" position

Item-Specific Accessories



Disconnect plug for carrier terminal blocks, suitable when using a carrier terminal block as disconnect terminal block

●	**2006-8401**	48 (4x12)

Accessories, 2006 Series



End and intermediate plate, 1 mm thick

●	**2006-8692**	48 (4x12)
●	**2006-8691**	48 (4x12)



Protective warning marker, ❹ with high-voltage symbol, black, for 5 terminal blocks

●	**2006-115**	100 (4x25)



Push-in type jumper bar, insulated, I_N 41 A, light gray

1 to 2	**2006-433**	50 (2x25)
1 to 3	**2006-435**	50 (2x25)



Star point jumper (as push-in type jumper bar), insulated, I_N = I_N terminal block, light gray

1-2-3	**2006-405/011-000**	50 (2x25)



Lockout cap, for conductor entry and operating slot

●	**2006-191**	25



Test plug, with 500 mm cable,

● 2 mm Ø	**210-136**	50



WMB Multi marking system, plain, 10 strips with 10 markers per card, for 5 … 17.5 mm terminal block width

○	**793-501**	5



WMB Multi marking system, plain 10 strips with 10 markers per card, for 5 … 17.5 mm terminal block width

●	**793-501/000-002**	5
●	**793-501/000-005**	5
●	**793-501/000-006**	5
●	**793-501/000-007**	5
●	**793-501/000-012**	5
●	**793-501/000-017**	5
●	**793-501/000-023**	5
●	**793-501/000-024**	5



Marking strip, plain, 11 mm wide, 50 m roll

○	**2009-110**	1



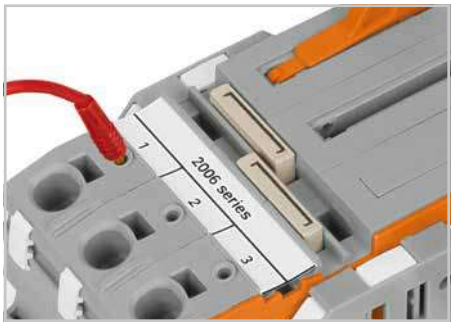
WMB Inline, plain, stretchable from 5 … 5.2 mm, 1,500 WMB markers (5 mm) per roll

○	**2009-115**	1

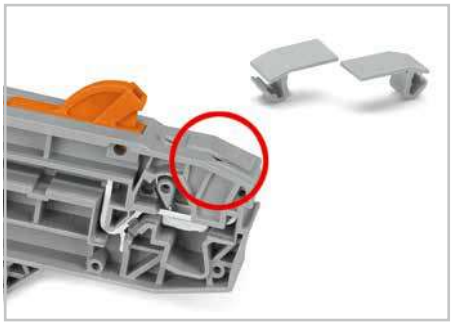


Screwless end stop, for DIN-35 rail, 10 mm wide

●	**249-117**	50(2x25)

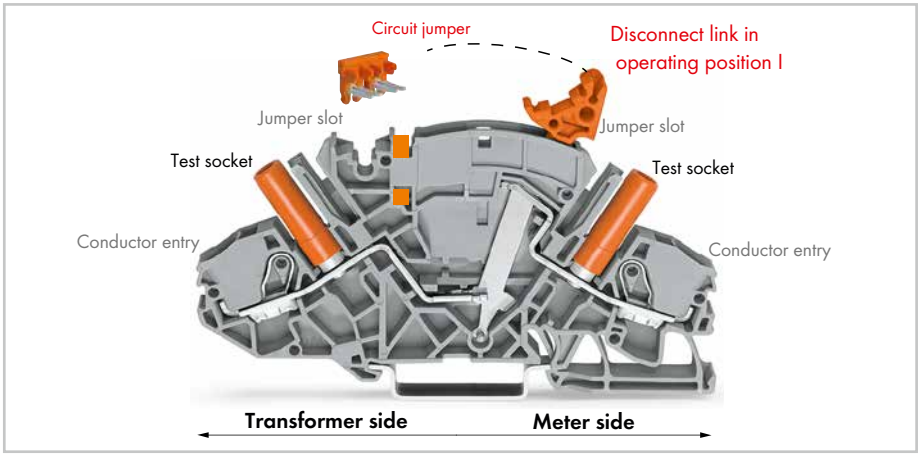


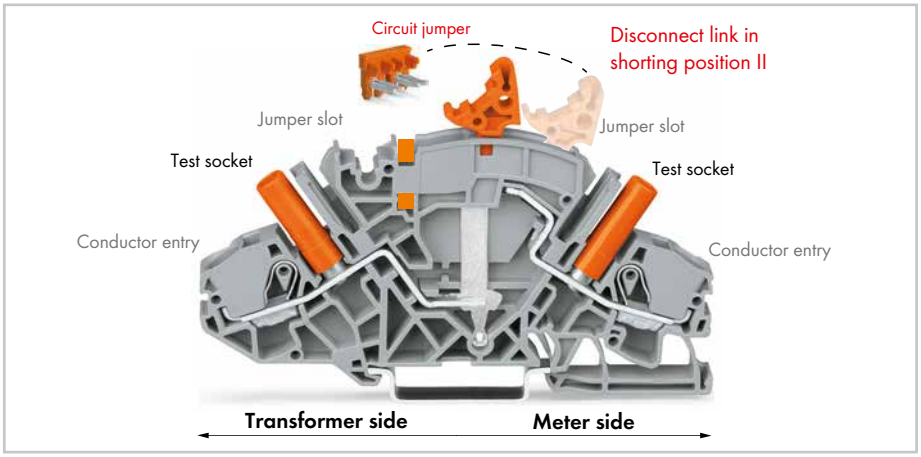
Commoning a 15 mm-wide terminal block via push-in type jumper bars: 1 to 3 (2006-433) and 1 to 5 (2006-435). Test slots on both terminal block sides allow for direct measurement.

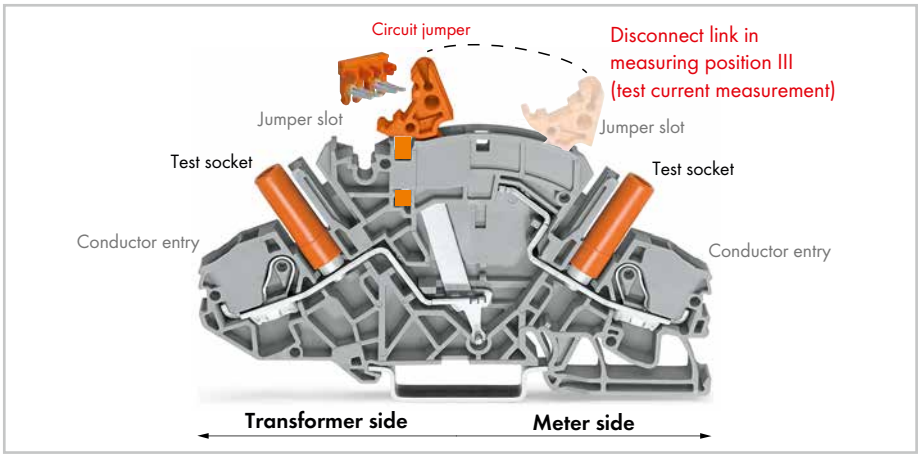

Cover seals unused conductor entry.

❹ Protective warning markers must be applied individually.

TOPJOB® S
Current Transformer Terminal Blocks, 2007-8821 (Orange Disconnect Link)







WAGO's TOPJOB® S Current Transformer (Disconnect/Test) Terminal Block **(2007-8821)** is designed for current transformer circuits.

First, the current transformer is shorted via disconnect link and circuit jumper (insert jumper, move disconnect link from operating position I to shorting position II, activate shorting path). Connecting a measurement device via test socket on the meter side can only be performed once circuit disconnection is complete (disconnect link in measuring position III).

- Features top-of-unit circuit jumper slot for shorting path activation.
- Disconnect link provides intuitive and easy operation, as well as exact switching status indication.
- Combines high functionality with compact design (99.6 mm long and 8 mm wide).
- All 2007 Series terminal blocks are rated at 30 A/500 V (IEC) and 300 V (UL).
- With a terminal block width of 8 mm, the maximum cross-section for solid and fine-stranded conductors is 10 mm² (8 AWG) and 6 mm² (10 AWG) for ferruled conductors.
- Touch-proof test sockets for 4 mm Ø test plugs on transformer and meter side.
- Compatible with through and ground conductor terminal blocks of same profile.







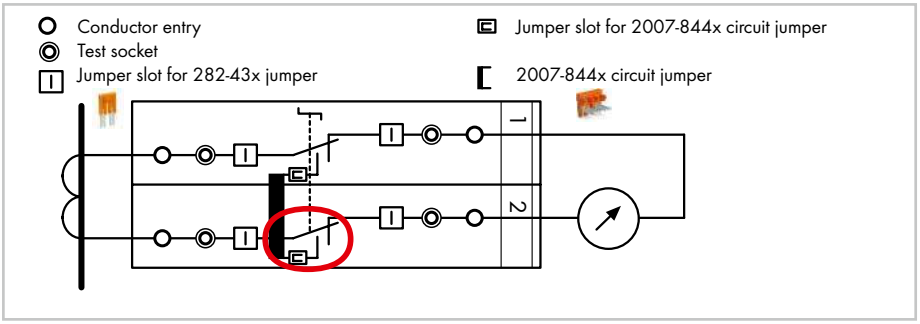
Preparing the shorting path for current transformer circuits:
Insert insulated, touch-proof circuit jumpers into jumper slot. Using locking covers or profiles for adjacent terminal blocks allows disconnect links to be operated simultaneously.

TOPJOB® S
Current Transformer Circuit Positions

Disconnect link in operating position I

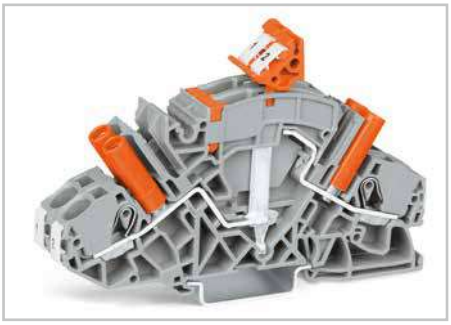


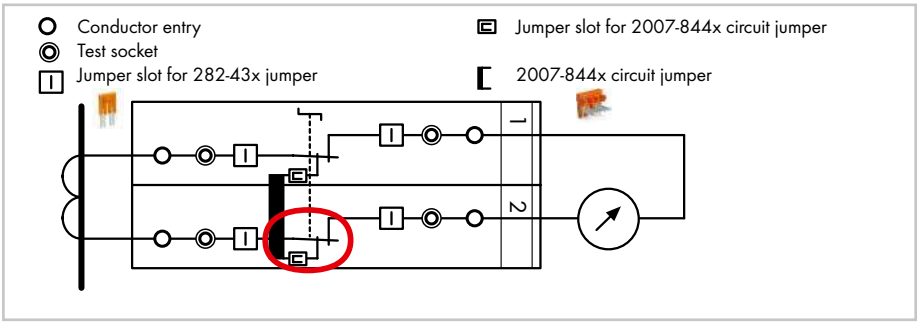
Terminal blocks required:
2 x disconnect/test terminal block 2007-8821
1 x circuit jumper, orange 2007-8442
locking covers or interlocking links (option)



In the operating position, the measurement device is connected to the transformer, the circuit jumper is inserted and the disconnect link is in position I.

Disconnect link in shorting position II

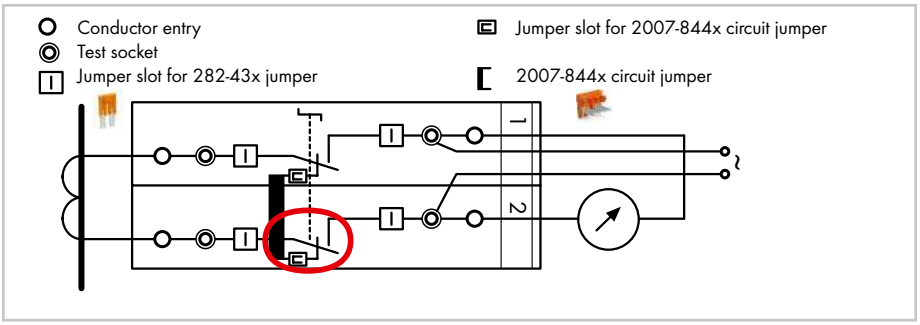




The transformer is **not** disconnected from the measurement device, yet, the shorting path is activated by moving the disconnect link into shorting position II and the transformer is safely shorted.

Test current measurement: Disconnect link in measuring position III



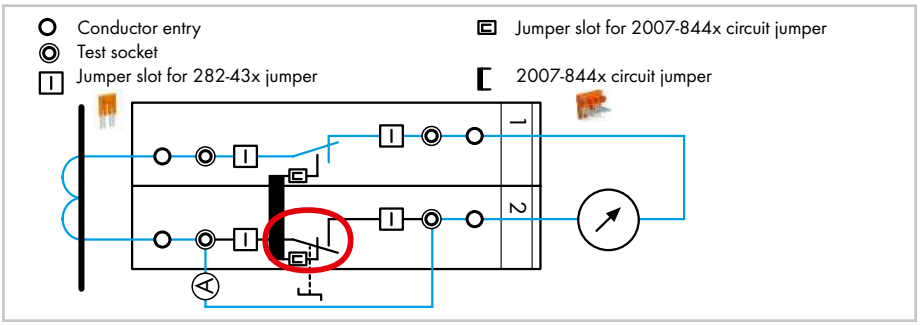


The measuring device is electrically disconnected from the transformer. If required, an external voltage can be applied to the measuring device via the test socket.

Measurement testing (using both test sockets)



Terminal block 1: Disconnect link in operating position I
Terminal block 2: Disconnect link in measuring position III



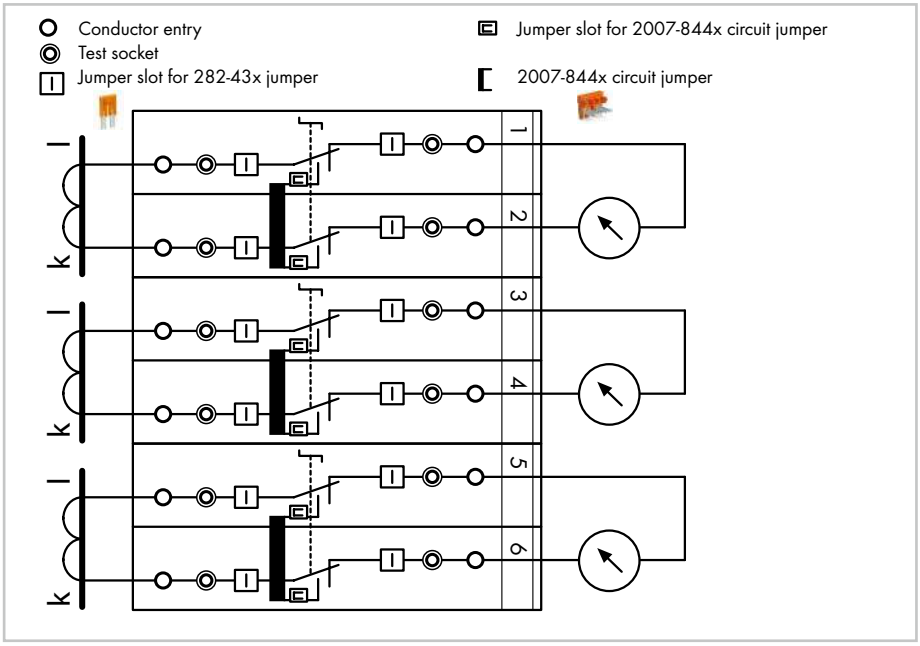
Measurement testing: First insert the reference current meter (A) into the test socket, then move the disconnect link into measurement position III (test current measurement).

TOPJOB® S
Examples for Current Transformer Circuits

Measuring set for a three-phase current transformer



Terminal blocks required:
6 x disconnect/test terminal block 2007-8821
3 x circuit jumper, orange 2007-8442
In addition: interlocking links, locking covers, lock-outs

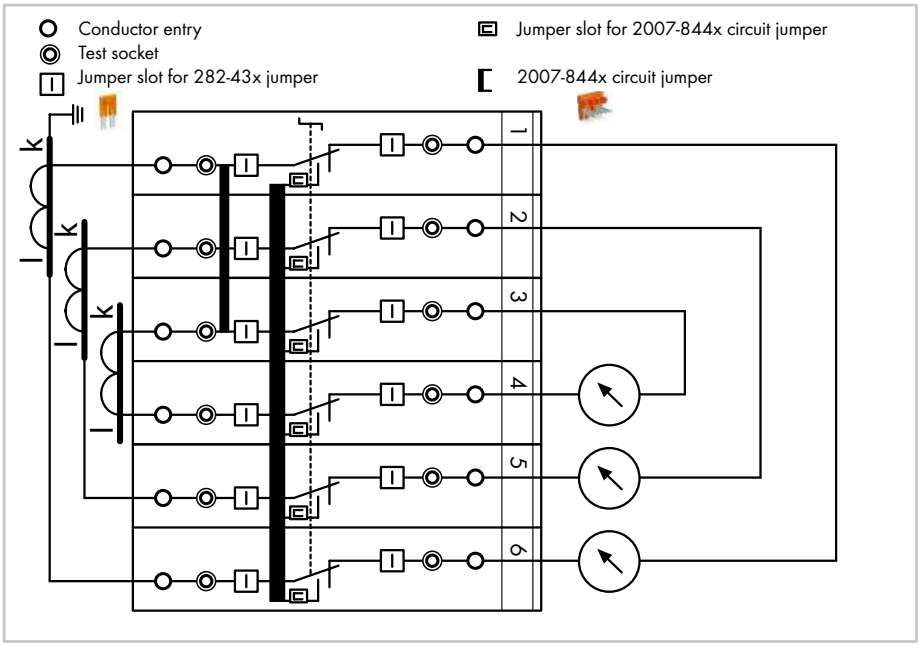


Pairs of disconnect links are interconnected via locking cover or interlocking link.
Measurement testing is performed after the interlocking is released.

Measuring set for a three-phase current transformer with 'Y' point



Terminal blocks required:
6 x disconnect/test terminal block 2007-8821
1 x circuit jumper, orange 2007-8446
1 x jumper, orange 282-433
In addition: interlocking links, locking covers, lock-outs



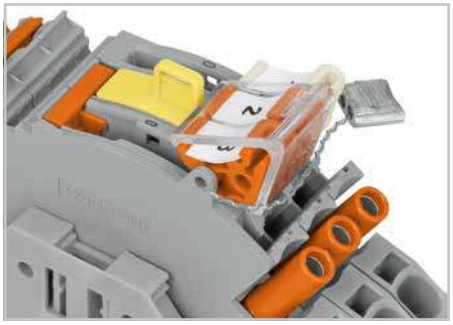
All six disconnect links are interconnected via locking cover or interlocking link.

Interlocking link



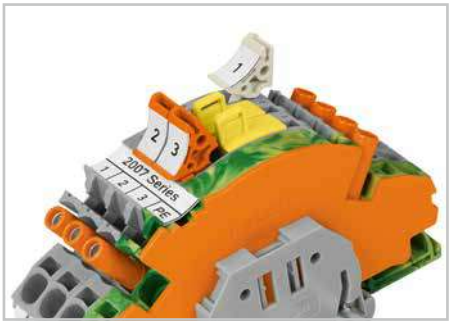
Interlocking link mechanically locks multiple links for multi-pole switching applications.

Lock-out seal



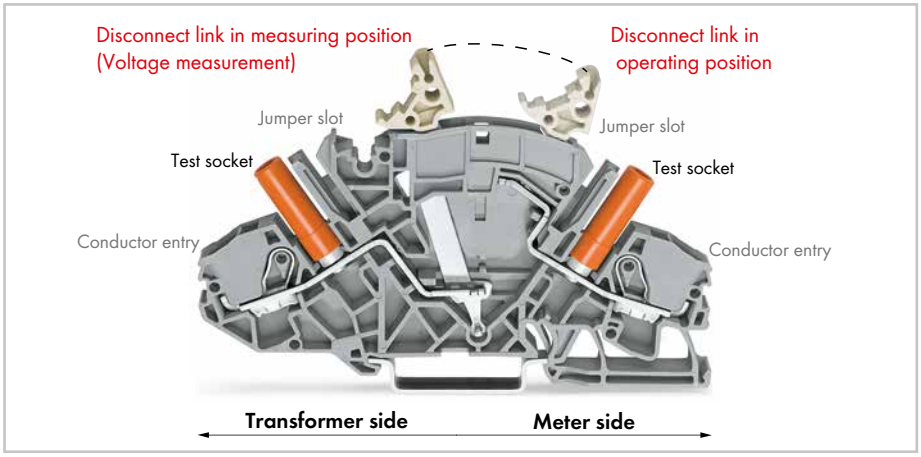
A lock-out seal can be used on the disconnect link in operating position I in connection with an end and separator plate (2007-8893 or 2007-8894).

Lock-out



Lock-out prevents accidental operation of disconnect link and snaps into one of two notched positions.

TOPJOB® S
Voltage Transformer Terminal Blocks, 2007-8811 (Light Gray Disconnect Link)



WAGO's TOPJOB® S Voltage Transformer (Disconnect/Test) Terminal Block **(2007-8811)** is designed for current transformer circuits.

First, disconnect the voltage transformer from the circuit (move disconnect link from operating position to measuring position). Connecting a measuring device via test socket on the meter side can only be performed after disconnection is complete (measuring position).

- For voltage transformer circuits (no circuit jumper slot required as for 2007-8821 Current Transformer Terminal Block)
- Disconnect link provides intuitive and easy operation, as well as exact switching status indication.
- Combines high functionality with compact design (99.6 mm long and 8 mm wide).
- All 2007 Series terminal blocks are rated at 30 A/500 V (IEC) and 300 V (UL).
- With a terminal block width of 8 mm, the maximum cross-section for solid and fine-stranded conductors is 10 mm² (8 AWG) and 6 mm² (10 AWG) for ferruled conductors.
- Touch-proof test sockets for 4 mm ∅ test plugs on transformer and meter side.
- Compatible with through and ground conductor terminal blocks of same profile.

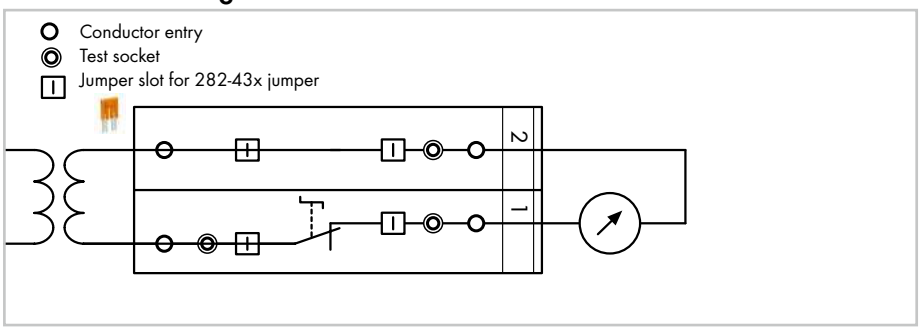
Example for voltage transformer testing
Measuring set for single-phase voltage transformer testing



Terminal blocks required:

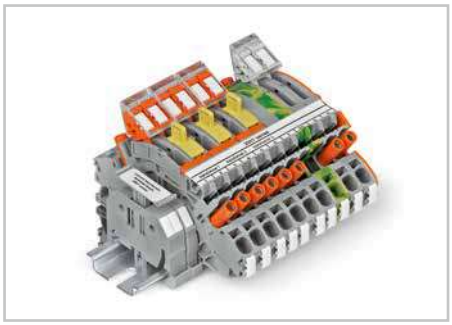
1 x disconnect/test terminal block	2007-8811
1 x through terminal block	2007-8801
1 x end plate, orange	2007-8892

In addition: locking cover, lock-out



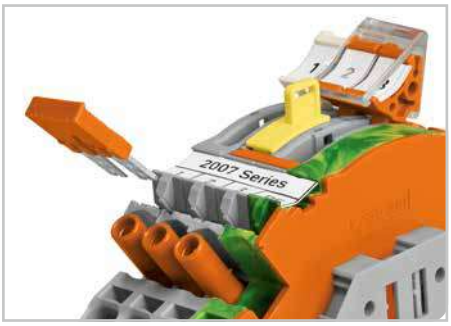
Disconnecting the voltage transformer from the circuit: Move disconnect link from operating position to measuring position.
Voltage measurement: Connecting a measuring device via test socket on the meter side can only be performed after disconnection is complete (measuring position).

Marking



Marking via WMB Multi markers or marking strips.

Commoning



Additional commoning option on the transformer side

Locking cover for disconnect links

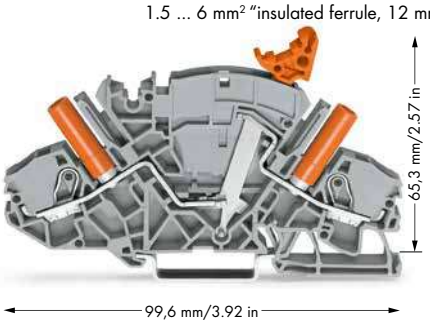


Multipole switching via snap-on type, transparent (locking) cover for disconnect links.

TOPJOB® S
Disconnect/Test Terminal Blocks 6 (10) mm² / 30 A, Through and Ground Conductor Terminal Blocks for Current and Voltage Transformer Circuits, 2007 Series

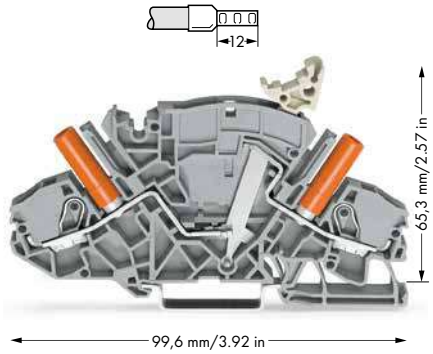
0.5 ... 6 (10) mm² ❶ | **20 ... 8 AWG**
500 V/6 kV/3 | **300 V, 30 A**
I_N 30 A
Terminal block width: 8 mm / 0.315 in.
13 ... 15 mm / 0.55 in.
❷ Approvals

❶ Conductor range: 0.5 ... 10 mm² "s+f-st"
Push-in termination: 1 ... 10 mm² "s" and
1.5 ... 6 mm² "insulated ferrule, 12 mm"



Color	Item No.	Pack. Unit
2-conductor disconnect/test terminal block,		
e.g., current transformer circuits,		
with circuit jumper slot,		
with touch-proof test sockets,		
for 4 mm Ø test plugs		
gray	**2007-8821**	20

0.5 ... 6 (10) mm² ❶ | **20 ... 8 AWG**
500 V/6 kV/3 | **300 V, 10 A**
I_N 30 A
Terminal block width: 8 mm / 0.315 in.
13 ... 15 mm / 0.55 in.
❷ Approvals



Color	Item No.	Pack. Unit
2-conductor disconnect/test terminal block,		
e.g., voltage transformer circuits,		
with touch-proof test sockets,		
for 4 mm Ø test plugs		
gray	**2007-8811**	20

Item-Specific Accessories

Circuit jumper, insulated,



I_N 30 A, orange		
2-way	**2007-8442**	50 (5x10)
3-way	**2007-8443**	50 (5x10)
4-way	**2007-8444**	50 (5x10)
5-way	**2007-8445**	50 (5x10)
6-way	**2007-8446**	50 (5x10)
7-way	**2007-8447**	50 (5x10)
8-way	**2007-8448**	50 (5x10)



Color	Item No.	Pack. Unit
2-conductor through terminal block,		
with touch-proof test socket,		
for 4 mm Ø test plug		
gray	**2007-8801**	20



Color	Item No.	Pack. Unit
2-cond. ground conductor terminal block,		
with touch-proof test socket,		
for 4 mm Ø test plug		
green-yellow	**2007-8807**	20

Accessories, 2007 Series

End and separator plate, 1.5 mm thick,



without lock-out seal option

	2007-8892	50 (5x10)
	2007-8891	50 (5x10)

End and separator plate, 1.5 mm thick,



with lock-out seal option

	2007-8894	50 (5x10)
	2007-8893	50 (5x10)

Lock-out device,



for disconnect link

	2007-8899	100 (5x20)

Locking cover, transparent,



mechanically locks multiple links

1-pole	**282-881**	50 (5x10)
2-pole	**282-882**	50 (5x10)
:	:	
8-pole	**282-888**	50 (5x10)

Jumper, insulated,



I_N 30 A, orange		
2-way	**282-432**	50 (5x10)
3-way	**282-433**	50 (5x10)
:	:	
9-way	**282-439**	50 (5x10)
10-way	**282-440**	50 (5x10)

Jumper with safety lid, insulated,



I_N 30 A, orange	
2-way	**282-432/100-000**
3-way	**282-433/100-000**
4-way	**282-434/100-000**

50 (5x10)

Interlocking link,



mechanically locks multiple links, 1 m long

transparent	**210-254**	1

Jumper, special design (other versions upon request),



I_N 30 A, orange	
1-3-5	**282-435/011-000**
1-2-4-6	**282-436/301-000**
1-3-5-7	**282-437/011-000**
1-4-7	**282-437/012-000**
1-2-5-8	**282-438/300-000**
1-4-7-8	**282-438/301-000**
1-3-5-7-9	**282-439/011-000**

50 (5x10)

Protective warning marker,



with high-voltage symbol, black,
for 5 terminal blocks

	2006-115	100 (4x25)

WMB Multi marking system, plain

10 strips with 10 markers per card,
for 5 ... 17.5 mm terminal block width

	793-501	5

Marking strip, plain,



11 mm wide,
50 m roll

	2009-110	1

Banana plugs, only for safety extra-low voltage (42 V)



	215-212	50
	215-311	50

For additional colors, see page 262.

Operating tool with a partially insulated shaft,



type 2, (5.5 x 0.8) mm blade

	210-721	1

❷ For all approvals and corresponding ratings, visit www.wago.com.

For technical information and abbreviations, see technical section.

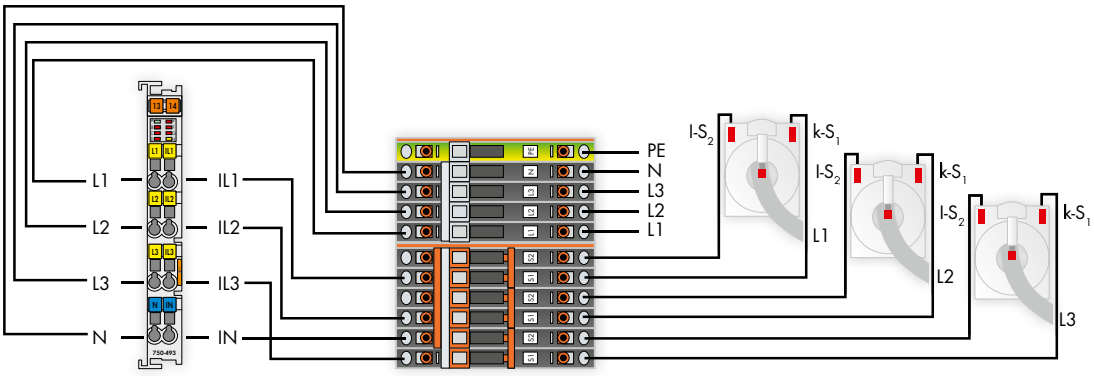
TOPJOB® S
Terminal Block Assemblies for Current and Voltage Transformers
2007 Series

PUSH-IN CAGE CLAMP®





Item No. for Set: 2007-8873	Designation: Current and Voltage Transformer Terminal Block Assembly	Quantity
249-117	Screwless end stop, 10 mm wide	2
282-882	Locking cover, mechanically locks multiple links, 2-pole	3
282-884	Locking cover, mechanically locks multiple links, 4-pole	1
2007-8442	Circuit jumper, insulated, 2-way	3
2007-8807	2-cond. ground conductor terminal block, with touch-proof test socket, for 4 mm Ø test plug	1
2007-8811	2-conductor disconnect/test terminal block, with touch-proof test sockets, for 4 mm Ø test plugs	4
2007-8821	2-conductor disconnect/test terminal block, with touch-proof test sockets, for 4 mm Ø test plugs	6
2007-8892	End and separator plate, 1.5 mm thick, without lock-out seal option	2
2009-135	WMB Inline, plain, 8,000 WMB markers (5 mm) per roll	21 markers
282-435/011-000	Jumper, insulated, 1-3-5	1
Assembly width incl. end stop: 11.2 cm		



3-Phase Power Measurement Module 750 Series

Terminal Block Assembly for Current and Voltage Transformers 2007 Series

Current Transformers 855 Series



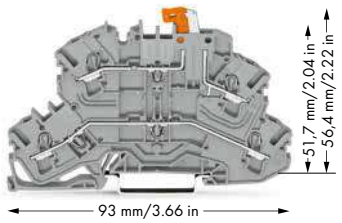


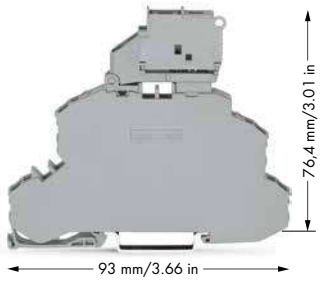
Item No. for Set: 2007-8876	Designation: Current Transformer Terminal Block Assembly	Quantity
249-117	Screwless end stop, 10 mm wide	2
282-369	Collective jumper carrier, for DIN-35 rail, compatible with jumpers for transverse switching (282-811) and longitudinal switching disconnect (282-821) terminal blocks	1
282-882	Locking cover, mechanically locks multiple links, 2-pole	3
2007-8442	Circuit jumper, insulated, 2-way	3
2007-8821	2-conductor disconnect/test terminal block, with touch-proof test sockets, for 4 mm Ø test plugs	6
2007-8892	End and separator plate, 1.5 mm thick, without lock-out seal option	1
2009-135	WMB Inline, plain, 8,000 WMB markers (5 mm) per roll	12 markers
282-435/011-000	Jumper, insulated, 1-3-5	1
Assembly width incl. end stop: 8.5 cm		

TOPJOB® S
Double-Deck Disconnect, Carrier and Fuse Terminal Blocks 2.5 (4) mm²
2002 Series

0.25 … 2.5 (4) mm² ❶ | **22 … 12 AWG**
400 V/6 kV/3 ❷ | **300 V, 20 A**
I_N 16 A
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❹ **Approvals**

0.25 … 2.5 (4) mm² ❶ | **22 … 12 AWG**
250 V/6 kV/3 ❷ | **30 V, 6.3 A**
I_N 6.3 A
Terminal block width: 6.2 mm / 0.244 in.
10 … 12 mm / 0.43 in.
❹ **Approvals**





❶ Conductor range: 0.25 … 4 mm² "s+f-st"
Push-in termination: 0.75 … 4 mm² "s"
and 0.75 … 2.5 mm²
"insulated ferrules, 12 mm"

❷ 400 V = Rated voltage
6 kV = Rated impulse voltage
3 = Pollution degree

❸ Due to the 6.2 mm width of fuse disconnect terminal blocks with a pivoting fuse holder, 2004 Series Push-In Type Jumper Bars must be used.

Color	Item No.	Pack. Unit
Double-deck disconnect terminal block, with movable knife disconnect, gray housing		
L/L	**2002-2671**	50
N/L	**2002-2672**	50
Double-deck carrier terminal block, upper-deck base, gray housing		
L/L	**2002-2661**	50
N/L	**2002-2662**	50
Double-deck carrier terminal block, upper-deck base, gray housing		
PE/L	**2002-2667**	50

Color	Item No.	Pack. Unit
Double-deck fuse disconnect terminal block with pivoting fuse holder, through/fuse terminal block, for 5 x 20 mm miniature metric fuse, without blown fuse indication, nominal voltage/current given by the fuse		
L/L	**2002-2611**	25
N/L	**2002-2612**	25
Double-deck fuse disconnect terminal block with pivoting fuse holder, through/fuse terminal block, for 5 x 20 mm miniature metric fuse, with blown fuse indication by LED, gray, nominal voltage/current given by LED or fuse; Leakage current in case of blown fuse: LED 2 mA		
12 … 30 V	**2002-2611/1000-541**	25
30 … 65 V	**2002-2611/1000-542**	25
230 V	**2002-2611/1000-836**	25

Item-Specific Accessories

End and intermediate plate, 1 mm thick



2002-2692	100 (4x25)	
2002-2691	100 (4x25)	

Adjacent jumper for continuous commoning, insulated,



I_N 25 A, **light gray**

2-way	**2002-400**	100 (4x25)
1 to 3	**2002-423**	100 (4x25)

Push-in type jumper bar, insulated,



I_N 25 A, light gray

2-way	**2002-402**	200 (8x25)
:	:	
10-way	**2002-410**	100 (4x25)

. . ./**000-005** . . ./**000-006**

Push-in type jumper bar, insulated,



I_N 25 A, light gray

1 to 3	**2002-433**	200 (8x25)
:	:	
1 to 10	**2002-440**	100 (4x25)

Double-deck vertical jumper, insulated, I_N 24 A



	2002-492	
	2002-492/000-012	100 (4x25)

Protective warning marker,

❺



with high-voltage symbol, black, for 5 terminal blocks

	2002-115	100 (4x25)

Item-Specific Accessories

End plate for fuse terminal blocks, 2 mm thick



2002-1092	100 (4x25)	
2002-1091	100 (4x25)	

Push-in type jumper bar, insulated,

❸



I_N 32 A, light gray

2-way	**2004-402**	200 (8x25)
3-way	**2004-403**	200 (8x25)
:	:	
10-way	**2004-410**	100 (4x25)

Push-in type jumper bar, insulated,

❸



I_N 32 A, light gray

1 to 3	**2004-433**	200 (8x25)
:	:	
1 to 10	**2004-440**	100 (4x25)

Double-deck vertical jumper, insulated, I_N 24 A



	2002-492	
	2002-492/000-012	100 (4x25)

Protective warning marker,

❺



with high-voltage symbol, black, for 5 terminal blocks

	2004-115	100 (4x25)

Accessories, 2002 Series

Double-deck marker carrier,



pivoting

	2002-121	50 (2x25)

Insulation stop, 5 pcs/strip



	2002-171	0.25–0.5 mm²
	2002-172	0.75–1 mm²
		200 (8x25)

Test plug, with 500 mm cable



2 mm Ø	**210-136**	50
2.3 mm Ø	**210-137**	50

Marking strip, plain,



11 mm wide, 50 m roll

	2009-110	1

Operating tool,



3.5 mm and 2.5 mm blades

	2009-309	1

Operating tool with a partially insulated shaft,



type 2, (3.5 x 0.5) mm blade

	210-720	1

Diode module,



5.2 mm wide, gray

Circuit I	**2002-800/1000-411**	100
Circuit II	**2002-800/1000-410**	100

LED module,



5.2 mm wide, gray

12 … 30 V	**2002-800/1000-541**	100
30 … 65 V	**2002-800/1000-542**	100
230 V	**2002-800/1000-836**	100

Fuse plugs, see page 48
Empty component plug housings, see page 236

❹ For all approvals and corresponding ratings, visit www.wago.com.

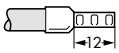
❺ Protective warning markers must be applied individually.

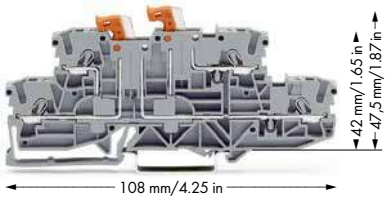
TOPJOB® S
Double-Deck Disconnect Terminal Blocks 2.5 (4) mm²
2002 Series

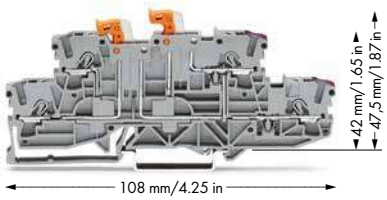
PUSH-IN CAGE CLAMP®

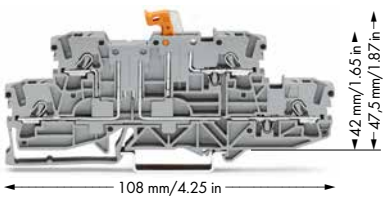
0.25 … 2.5 (4) mm² ❶ | 22 … 12 AWG
400 V/6 kV/3
I_N 16 A
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❹ Approvals

❶ Conductor range: 0.25 … 4 mm² "s+f-st"
Push-in termination: 0.75 … 4 mm² "s" and
0.75 … 2.5 mm² "insulated ferrule, 12 mm"









Color	Item No.	Pack. Unit
4-conductor, double-deck, double-disconnect terminal block		
gray	**2002-2951**	50
blue	**2002-2954**	50
gray N/L	**2002-2952**	50

Color	Item No.	Pack. Unit
4-conductor, double-deck, double-disconnect terminal block, lower and upper decks internally commoned on right side, violet marking		
gray	**2002-2958**	50
blue	**2002-2959**	50

Color	Item No.	Pack. Unit
4-conductor, double-deck disconnect terminal block, same profile as double-deck, double-disconnect terminal blocks		
gray	**2002-2971**	50
blue	**2002-2974**	50
gray N/L	**2002-2972**	50

Item-Specific Accessories

End and intermediate plate, 1 mm thick



	2002-2992	100 (4x25)
	2002-2991	100 (4x25)

End and intermediate plate, 1 mm thick



	2002-2992	100 (4x25)
	2002-2991	100 (4x25)

End and intermediate plate, 1 mm thick



	2002-2992	100 (4x25)
	2002-2991	100 (4x25)

Accessories, 2002 Series

Appropriate marking systems: **WMB/Marking Strips/WMB Inline**

Adjacent jumper for continuous commoning, insulated,



I_N 25 A, **light gray**

2-way	**2002-400**	100 (4x25)
1 to 3	**2002-423**	100 (4x25)

Push-in type jumper bar, insulated,



I_N 25 A, light gray

2-way	**2002-402**	200 (8x25)
:	:	
10-way	**2002-410**	100 (4x25)

. . ./**000-005** . . ./**000-006**

Push-in type jumper bar, insulated,



I_N 25 A, light gray

1 to 3	**2002-433**	200(8x25)
:	:	
1 to 10	**2002-440**	100(4x25)

Staggered jumper, insulated,



I_N 25 A, light gray

2-way	**2002-472**	100 (4x25)
3-way	**2002-473**	100 (4x25)
:	:	
12-way	**2002-482**	50 (2x25)

Insulation stop, 5 pcs/strip



	2002-171	0.25–0.5 mm²
	2002-172	0.75–1 mm²
		200 (8x25)

Modular TOPJOB® S connector, can be snapped together, I_N 24 A, for jumper contact slot



	2002-511	100(4x25)

Spacer module, can be snapped together

	2002-549	100(4x25)

Test plug adapter, for 4 mm Ø test plug



	2009-174	100 (4x25)
Testing tap, for max. 2.5 mm²		
	2009-182	100 (4x25)

Banana plugs, only for safety extra-low voltage (42 V)



	215-212	50
	215-311	50

For additional colors, see page 262.

Operating tool with a partially insulated shaft,



type 2, (3.5 x 0.5) mm blade

	210-720	1

Protective warning marker, with high-voltage symbol, for 5 terminal blocks



	2002-115	100 (4x25)

Marking strips, plain



11 mm wide,
50 m roll

	2009-110	1

Test plug, with 500 mm cable



2 mm Ø	**210-136**	50
2.3 mm Ø	**210-137**	50

For technical information and abbreviations, see technical section.

For additional information, visit www.wago.com.

TOPJOB® S
Diode and LED Terminal Blocks 2.5 (4) mm²
2002 Series

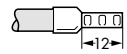
0.25 … 2.5 (4) mm² ❶ | 22 … 12 AWG
U_N 250 V; U_{RM} 1000 V
1N4007 – 0.5 A continuous current

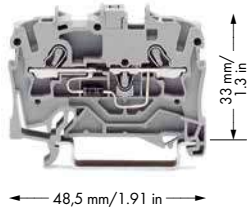
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❹ Approvals

0.25 … 2.5 (4) mm² ❶ | 22 … 12 AWG
❷ U_N 250 V; U_{RM} 1000 V
1N4007 – 0.5 A continuous current
❸ 24 VDC / I_F 0.025 A max.
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❹ Approvals

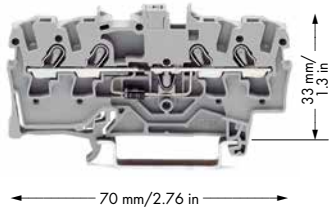
0.25 … 2.5 (4) mm² ❶ | 22 … 12 AWG
❷ U_N 250 V; U_{RM} 1000 V
1N4007 – 0.5 A continuous current
❸ 24 VDC / I_F 0.025 A max.
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❹ Approvals

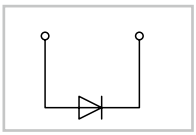
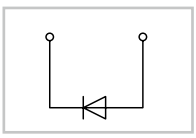
❶ Conductor range: 0.25 … 4 mm² "s+f-st"
Push-in termination: 0.75 … 4 mm² "s" and
0.75 … 2.5 mm² "insulated ferrule, 12 mm"

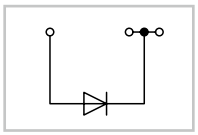
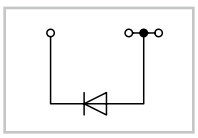
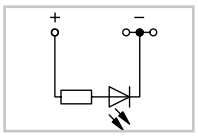
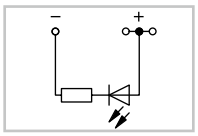


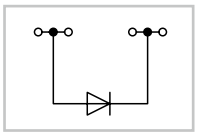
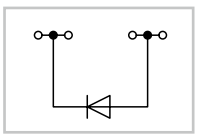
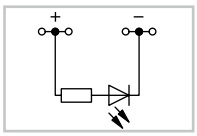
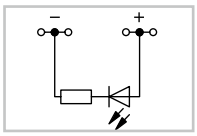






	Item No.	Pack. Unit
	**2-conductor diode terminal block with 1N4007 diode**	
	2002-1211/1000-410	100
	**2-conductor diode terminal block with 1N4007 diode**	
	2002-1211/1000-411	100
	**Through terminal block of same profile**	
	2002-1201	100

	Item No.	Pack. Unit
	**❷ 3-conductor diode terminal block with 1N4007 diode**	
	2002-1311/1000-410	100
	**❷ 3-conductor diode terminal block with 1N4007 diode**	
	2002-1311/1000-411	100
	**❸ 3-conductor LED terminal block with red LED, 24 VDC**	
	2002-1321/1000-434	100
	**❸ 3-conductor LED terminal block with red LED, 24 VDC**	
	2002-1321/1000-413	100
	**Through terminal block of same profile**	
	2002-1301	100

	Item No.	Pack. Unit
	**❷ 4-conductor diode terminal block with 1N4007 diode**	
	2002-1411/1000-410	100
	**❷ 4-conductor diode terminal block with 1N4007 diode**	
	2002-1411/1000-411	100
	**❸ 4-conductor LED terminal block with red LED, 24 VDC**	
	2002-1421/1000-434	100
	**❸ 4-conductor LED terminal block with red LED, 24 VDC**	
	2002-1421/1000-413	100
	**Through terminal block of same profile**	
	2002-1401	100

Item-Specific Accessories

End and intermediate plate, 0.8 mm thick



●	**2002-1292**	100 (4x25)
○	**2002-1291**	100 (4x25)

End and intermediate plate, 0.8 mm thick



●	**2002-1392**	100 (4x25)
○	**2002-1391**	100 (4x25)

End and intermediate plate, 0.8 mm thick



●	**2002-1492**	100 (4x25)
○	**2002-1491**	100 (4x25)

Accessories, 2002 Series

Appropriate marking systems: **WMB/Marking Strips/WMB Inline**

Adjacent jumper for continuous commoning, insulated,



I_N 25 A, **light gray**

2-way	**2002-400**	100 (4x25)
1 to 3	**2002-423**	100 (4x25)

Push-in type jumper bar, insulated, I_N 25 A, light gray



1 to 3	**2002-433**	200 (8x25)
:	:	
1 to 10	**2002-440**	100 (4x25)

Push-in type jumper bar, insulated,



I_N 25 A, light gray

2-way	**2002-402**	200 (8x25)
3-way	**2002-403**	200 (8x25)
4-way	**2002-404**	200 (8x25)
:	:	
10-way	**2002-410**	100 (4x25)

● . . ./**000-005** ● . . ./**000-006**

Staggered jumper, insulated,



I_N 25 A, light gray

2-way	**2002-472**	100 (4x25)
3-way	**2002-473**	100 (4x25)
4-way	**2002-474**	100 (4x25)
5-way	**2002-475**	50 (2x25)
:	:	
12-way	**2002-482**	50 (2x25)

❹ For all approvals and corresponding ratings, visit www.wago.com.

For technical information and abbreviations, see technical section.

TOPJOB® S
Double- and Triple-Deck Diode Terminal Blocks
Double- and Triple-Deck LED Terminal Blocks, 2.5 (4) mm², 2002 Series

PUSH-IN CAGE CLAMP®

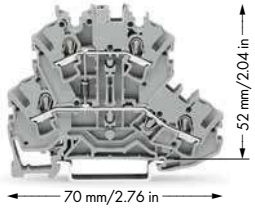
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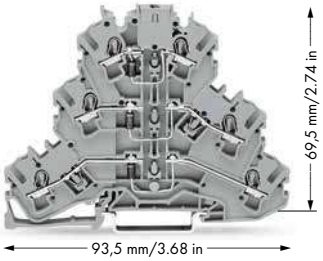
0.25 … 2.5 (4) mm² ❶ | 22 … 12 AWG
U_N 250 V; U_{RM} 1000 V
1N4007 – 0.5 A continuous current
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❹ Approvals

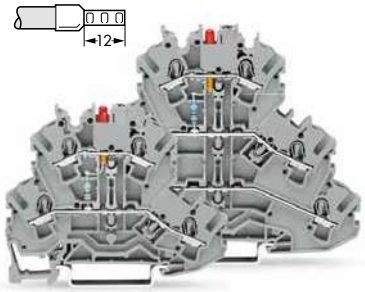
0.25 … 2.5 (4) mm² ❶ | 22 … 12 AWG
U_N 250 V; U_{RM} 1000 V
1N4007 – 0.5 A continuous current
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❹ Approvals

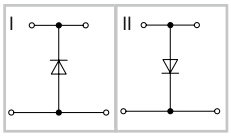
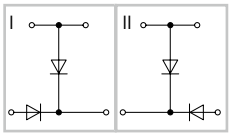
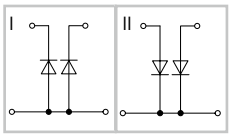
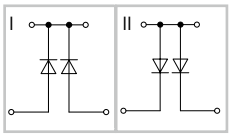
0.25 … 2.5 (4) mm² ❶ | 22 … 12 AWG
24 VDC
I_F 25 mA max.
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❹ Approvals

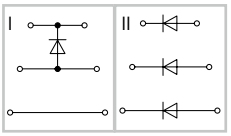
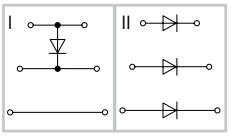
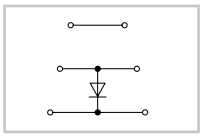
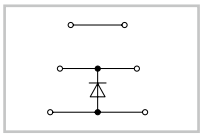
❶ Conductor range: 0.25 … 4 mm² "s+f-st"
Push-in termination: 0.75 … 4 mm² "s" and
0.75 … 2.5 mm² "insulated ferrule, 12 mm"

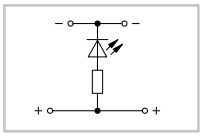
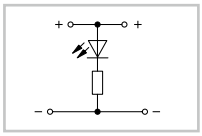
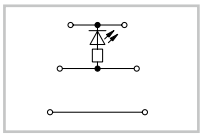
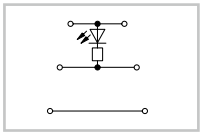






	Item No.	Pack. Unit
	**Double-deck diode terminal block** with 1N4007 diode (I)	
	2002-2211/1000-410	50
	with 1N4007 diode (II)	
	2002-2211/1000-411	50
	**Double-deck diode terminal block**	
	with 2 1N4007 diodes (I)	
	2002-2214/1000-492	50
	with 2 1N4007 diodes (II)	
	2002-2214/1000-491	50
	**Double-deck diode terminal block**	
	with 2 1N4007 diodes (I)	
	2002-2213/1000-487	50
	with 2 1N4007 diodes (II)	
	2002-2213/1000-488	50
	**Double-deck diode terminal block**	
	with 2 1N4007 diodes (I)	
	2002-2214/1000-489	50
	with 2 1N4007 diodes (II)	
	2002-2214/1000-490	50
	**Through terminal block of same profile**	
	2002-2201	100

	Item No.	Pack. Unit
	**Triple-deck diode terminal block** with 1N4007 diode (I)	
	2002-3211/1000-410	50
	with 3 1N4007 diodes (II)	
	2002-3212/1000-673	50
	**Triple-deck diode terminal block** with 1N4007 diode (I)	
	2002-3211/1000-411	50
	with 3 1N4007 diodes (II)	
	2002-3212/1000-674	50
	**Triple-deck diode terminal block** with 1N4007 diode	
	2002-3211/1000-675	50
	**Triple-deck diode terminal block** with 1N4007 diode	
	2002-3211/1000-676	50
	**Through terminal block of same profile**	
	2002-3201	100

	Item No.	Pack. Unit
	**Double-deck diode terminal block with red LED,** 24 VDC	
	2002-2221/1000-434	50
	**Double-deck diode terminal block with red LED,** 24 VDC	
	2002-2221/1000-413	50
	**Triple-deck diode terminal block with red LED,** 24 VDC	
	2002-3221/1000-434	50
	**Triple-deck diode terminal block with red LED,** 24 VDC	
	2002-3221/1000-413	50
	Through terminal block with same profile	
	Double-deck terminal block	**2002-2201**
	Triple-deck terminal block	**2002-3201**

Item-Specific Accessories

End and intermediate plate, 0.8 mm thick



- **2002-2292** 100 (4x25)
- **2002-2291** 100 (4x25)

End and intermediate plate, 0.8 mm thick



- **2002-3292** 100 (4x25)
- **2002-3291** 100 (4x25)

End and intermediate plate, 0.8 mm thick

Double-deck terminal block	**2002-2292**	**2002-2291**
Triple-deck terminal block	**2002-3292**	**2002-3291**

Accessories, 2002 Series

Appropriate marking systems: **WMB/Marking Strips/WMB Inline**

Insulation stop, 5 pcs/strip



- **2002-171** 0.25–0.5 mm²
- **2002-172** 0.75–1 mm² 200 (8x25)

Test plug adapter, for 4 mm Ø test plug



2009-174 100 (4x25)

Testing tap, for max. 2.5 mm²
2009-182 100 (4x25)

Operating tool with a partially insulated shaft,



type 2, (3.5 x 0.5) mm blade
210-720 1

Insulated ferrules, extra long,



for TOPJOB® S terminal blocks,
see page 259

Banana plugs, only for safety extra-low voltage (42 V)



- **215-212** 50
- **215-311** 50

For additional colors, see page 262.

WMB Multi marking system, plain,

10 strips with 10 markers per card,
stretchable from 5 … 5.2 mm
793-5501 5

Please find the entire product range in our Full Line Catalog. For additional information, visit www.wago.com.

Sensor and Actuator Terminal Blocks – Description and Handling –

Commoning (potential level)



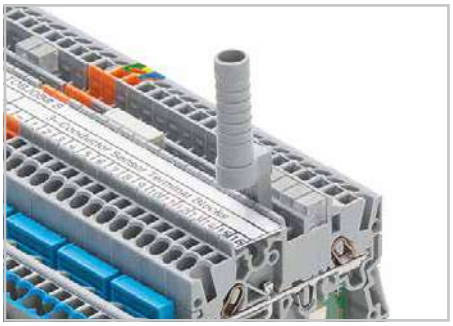
Continuous commoning in the potential levels via push-in type jumper bars for even pole numbers.

Ground commoning



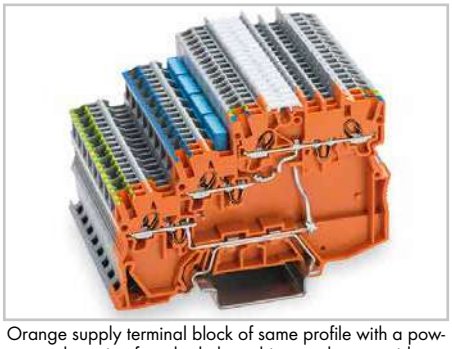
For sensor and actuator terminal blocks without ground connection to the DIN-rail, the ground connection can be performed by commoning to the terminal block with a ground foot.

Commoning and testing (signal level)

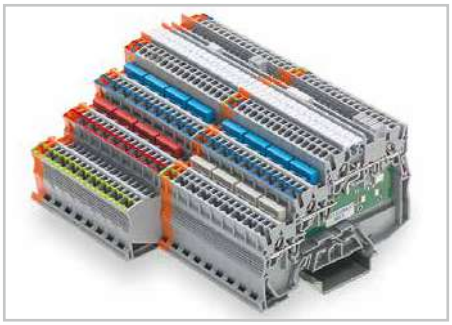


Commoning the signal level with push-in type jumper bars. Models with an LED can only be commoned in one jumper slot.
TOPJOB® S Test Plug Adapter can be used in all jumper slots.

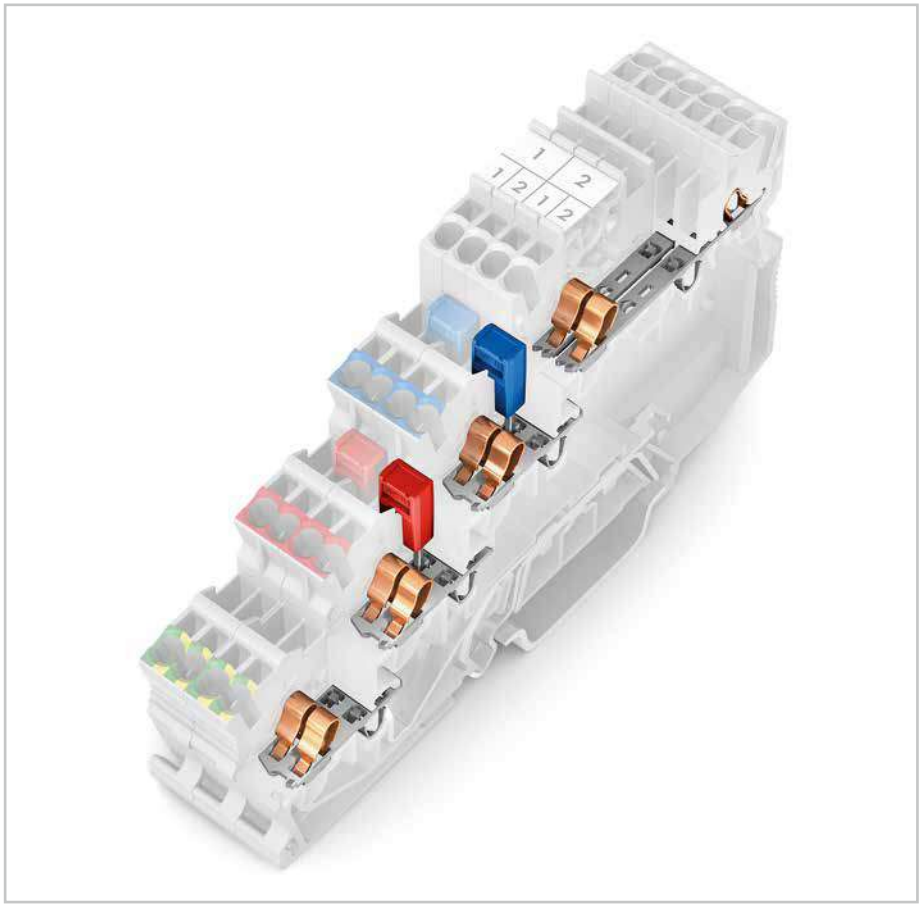
Power supply



Orange supply terminal block of same profile with a power supply option from both the cabinet and sensor sides

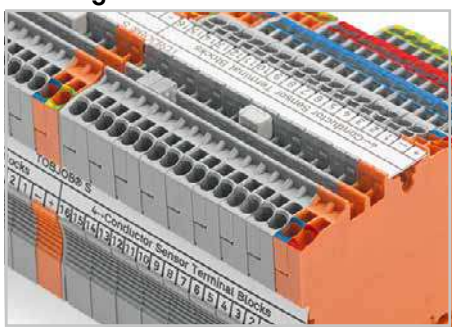


Terminal block assembly with 4-conductor sensor terminal blocks and 3-conductor actuator terminal blocks



Upper level: two independent signal pathways in 3.5 mm spacing per pole, with dual jumper slot
Lower levels: two interconnected potential clamping units, with a single jumper slot, can be commoned in both directions

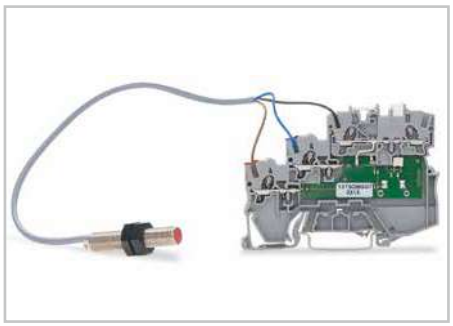
Marking



Marking strips (2009-110) or 3.5 mm WMB markers (793-35xx), marking from the top or the side, additional marking option via marker carrier



3-conductor sensor LED terminal block with a connected sensor



For information on Push-in CAGE CLAMP® connection, see page 14.

TOPJOB® S
3-Conductor Sensor Terminal Blocks 1 (1.5) mm²
2000 Series

PUSH-IN CAGE CLAMP®

0.14 … 1 (1.5) mm² ❶ | **24 … 16 AWG**
250 V/4 kV/3 ❷ | **300 V, 10 A**
I_N 13.5 A
Terminal block width: 7 mm / 0.276 in. ❸
9 … 11 mm / 0.39 in.
❹ Approvals

0.14 … 1 (1.5) mm² ❶ | **24 … 16 AWG**
24 VDC | **24 VDC, 10 A**
I_N 13.5 A
Terminal block width: 7 mm / 0.276 in. ❸
9 … 11 mm / 0.39 in.
❹ Approvals

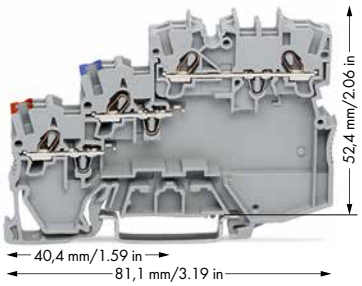
❶ Conductor range: 0.14 … 1.5 mm² "s+f-st"
Push-in termination: 0.5 … 1.5 mm² "s"
and 0.5 … 0.75 mm²
"insulated ferrules, 10 mm"

❷ 250 V = Rated voltage
4 kV = Rated impulse voltage
3 = Pollution degree
(see Full Line Catalog)

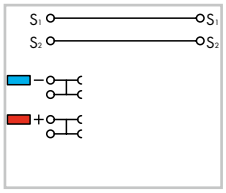
❸ 3.5 mm spacing per signal (2 x 3.5 mm = 7 mm)

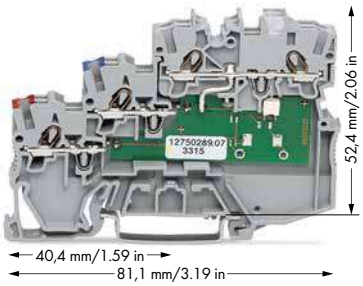
❹ For all approvals and corresponding ratings, visit www.wago.com.

❺ See application notes in our Full Line Catalog.

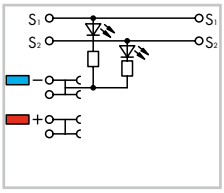


2000-5311

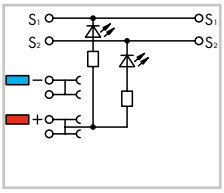




2000-5311/1102-950



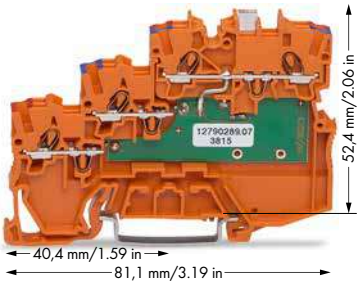
2000-5311/1101-951



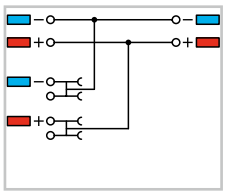
Note:
The double spacing per pole of this terminal block series maximizes connectivity. For example **ten** sensors may be connected using only **five** sensor terminal blocks plus power supply terminal block.

Color	Item No.	Pack. Unit
3-conductor sensor terminal block		
gray	**2000-5311**	50

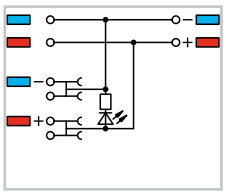
Color	Item No.	Pack. Unit
3-conductor sensor LED terminal block, for **PNP (high-side)** switching sensors, yellow LED		
gray	**2000-5311/1102-950**	50
3-conductor sensor LED terminal block, for **NPN (low-side)** switching sensors, yellow LED		
gray	**2000-5311/1101-951**	50

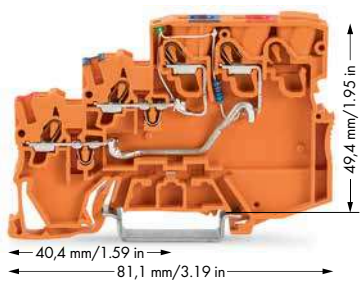


2000-5372

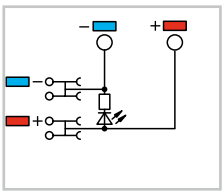


2000-5372/1102-953





2000-5352/1102-953



Color	Item No.	Pack. Unit
3-conductor sensor supply terminal block, max. 250 V,		
orange	**2000-5372**	15
3-conductor sensor LED supply terminal block, 24 VDC green LED		
orange	**2000-5372/1102-953**	15

Color	Item No.	Pack. Unit
3-conductor sensor supply terminal block, max. 250 V, control panel side: 2.5 (4) mm², max. 28 A		
orange	**2000-5352**	15
3-conductor sensor LED supply terminal block, 24 VDC, green LED, control panel side: 2.5 (4) mm², max. 28 A		
orange	**2000-5352/1102-953**	15

Accessories for 3-Conductor Terminal Blocks

Appropriate marking systems:
WMB/Marking Strips/WMB Inline

End and intermediate plate, 1 mm thick,
for 3-conductor terminal blocks
2000-5391 100 (4x25)

Push-in type jumper bar, insulated, ❺
I_N 14 A, light gray
2-way **2000-402** 200 (8x25)
3-way **2000-403** 200 (8x25)
⋮ ⋮
10-way **2000-410** 100 (4x25)
. . ./**000-005** . . ./**000-006**

Push-in type jumper bar, insulated,
I_N 14 A, light gray
1 to 3 **2000-433** 200 (8x25)
1 to 4 **2000-434** 200 (8x25)
⋮ ⋮
1 to 10 **2000-440** 100 (4x25)

Double-deck marker carrier,
pivoting
2000-121 50 (2x25)

Marking strip, plain,
11 mm wide,
50 m roll
2009-110 1

WMB Multi marking system, plain,
10 strips with 10 markers per card,
for 3.5 mm terminal block width
793-3501 5

Operating tool with a partially insulated shaft,
type 1, (2.5 x 0.4) mm blade
210-719 1

Insulated ferrules, extra long,
for TOPJOB® S terminal blocks,
see page 259

For technical information and abbreviations, see technical section.

TOPJOB® S
4-Conductor Sensor Terminal Blocks 1 (1.5) mm²
2000 Series

PUSH-IN CAGE CLAMP®

0.14 … 1 (1.5) mm² ❶	24 … 16 AWG
250 V/4 kV/3 ❷	300 V, 10 A
I_N 13.5 A	
Terminal block width: 7 mm / 0.276 in. ❸	
9 … 11 mm / 0.39 in.	
❹ Approvals	

0.14 … 1 (1.5) mm² ❶	24 … 16 AWG
24 VDC	24 VDC, 10 A
I_N 13.5 A	
Terminal block width: 7 mm / 0.276 in. ❸	
9 … 11 mm / 0.39 in.	
❹ Approvals	

❶ Conductor range: 0.14 … 1.5 mm² "s+f-st"
Push-in termination: 0.5 … 1.5 mm² "s"
and 0.5 … 0.75 mm²
"insulated ferrules, 10 mm"

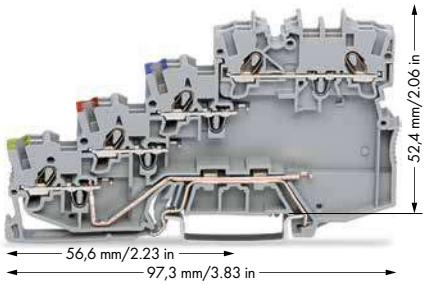
❷ 250 V = Rated voltage
4 kV = Rated impulse voltage
3 = Pollution degree
(see Full Line Catalog)

❸ 3.5 mm spacing per signal (2 x 3.5 mm = 7 mm)

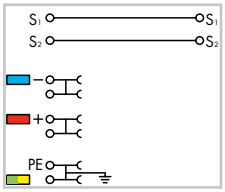
❹ For all approvals and corresponding ratings, visit www.wago.com.

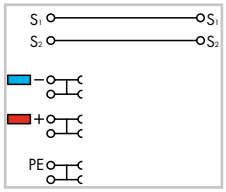
❺ See application notes in our Full Line Catalog.

❻ Ground connection via commoning to terminal blocks with ground foot

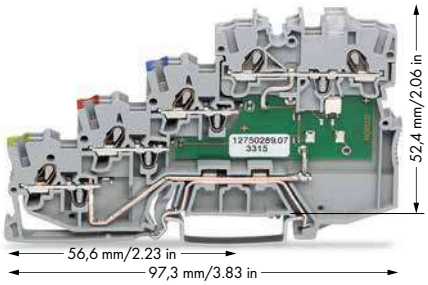


2000-5417

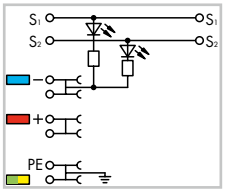




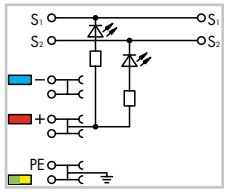
2000-5410



2000-5417/1102-950



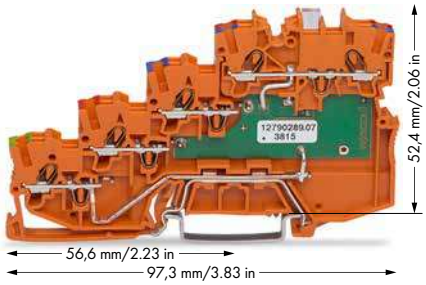
2000-5417/1101-951



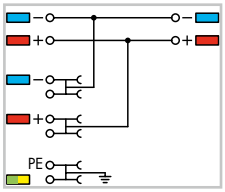
Note:
The double spacing per pole of this terminal block series maximizes connectivity. For example **ten** sensors may be connected using only **five** sensor terminal blocks plus power supply terminal block.

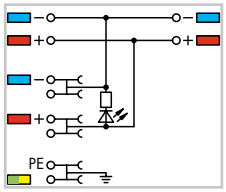
Color	Item No.	Pack. Unit
4-conductor sensor terminal block, with ground connection		
gray	**2000-5417**	50
gray	**2000-5410**	50 ❻

Color	Item No.	Pack. Unit
4-conductor sensor LED terminal block, for **PNP (high-side)** switching sensors, yellow LED, with ground connection		
gray	**2000-5417/1102-950**	50
gray	**2000-5410/1102-950**	50 ❻
4-conductor sensor LED terminal block, for **NPN (low-side)** switching sensors, yellow LED, with ground connection		
gray	**2000-5417/1101-951**	50
gray	**2000-5410/1101-951**	50 ❻

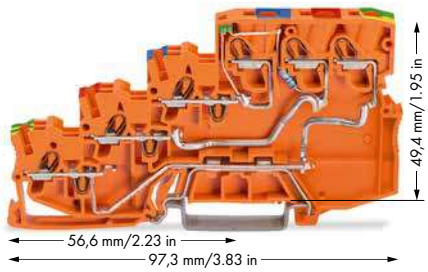


2000-5477

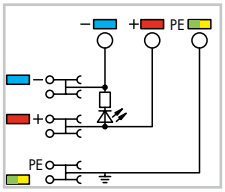




2000-5477/1102-953



2000-5457/1102-953



Color	Item No.	Pack. Unit
4-conductor sensor supply terminal block, max. 250 V, with ground connection		
orange	**2000-5477**	15
4-conductor sensor LED supply terminal block, 24 VDC green LED, with ground connection		
orange	**2000-5477/1102-953**	15

Color	Item No.	Pack. Unit
4-conductor sensor supply terminal block, max. 250 V, control panel side: 2.5 (4) mm², max. 28 A, with ground connection		
orange	**2000-5457**	15
4-conductor sensor LED supply terminal block, 24 VDC, green LED, control panel side: 2.5 (4) mm², max. 28 A, with ground connection		
orange	**2000-5457/1102-953**	15

Accessories for 4-Conductor Terminal Blocks

Appropriate marking systems:

WMB/Marking Strips/WMB Inline

End and intermediate plate, 1 mm thick,



for 4-conductor terminal blocks

	2000-5491	100

Push-in type jumper bar, insulated, ❺



IN 14 A, light gray

2-way	**2000-402**	200
3-way	**2000-403**	200
⋮	⋮	
10-way	**2000-410**	100

. . ./**000-005** . . ./**000-006**
. . ./**000-018**

Push-in type jumper bar, insulated,



IN 14 A, light gray

1 to 3	**2000-433**	200
1 to 4	**2000-434**	200
⋮	⋮	
1 to 10	**2000-440**	100

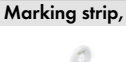
Double-deck marker carrier,



pivoting

	2000-121	50

Marking strip, plain,



11 mm wide,
50 m roll

	2009-110	1

WMB Multi marking system, plain,

10 strips with 10 markers per card,
for 3.5 mm terminal block width

	793-3501	5

Operating tool with a partially insulated shaft,



type 1, (2.5 x 0.4) mm blade

	210-719	1

Insulated ferrules, extra long,



for TOPJOB® S terminal blocks,
see page 259

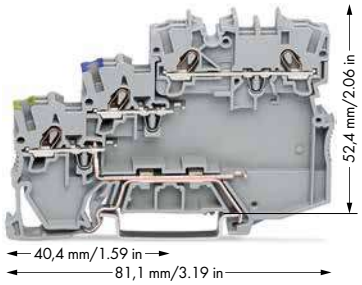
For technical information and abbreviations, see technical section.

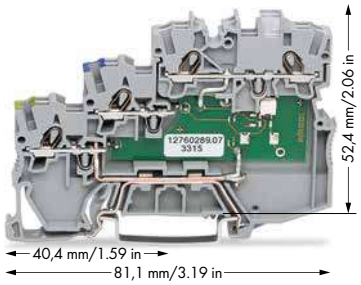
TOPJOB® S
3-Conductor Actuator Terminal Blocks 1 (1.5) mm²
2000 Series

PUSH-IN CAGE CLAMP®

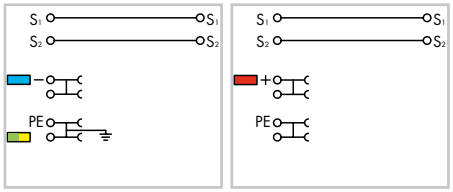
0.14 … 1 (1.5) mm² ❶ | **24 … 16 AWG**
250 V/4 kV/3 ❷ | **300 V, 10 A**
I_N 13.5 A
Terminal block width: 7 mm / 0.276 in. ❸
9 … 11 mm / 0.39 in.
❹ Approvals

0.14 … 1 (1.5) mm² ❶ | **24 … 16 AWG**
24 VDC | **24 VDC, 10 A**
I_N 13.5 A
Terminal block width: 7 mm / 0.276 in. ❸
9 … 11 mm / 0.39 in.
❹ Approvals

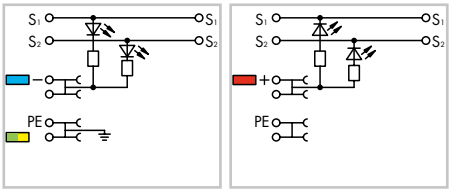




2000-5317/102-000 | 2000-5310/101-000



2000-5317/1102-950 | 2000-5310/1101-951



❶ Conductor range: 0.14 … 1.5 mm² "s+f-st"
Push-in termination: 0.5 … 1.5 mm² "s"
and 0.5 … 0.75 mm²
"insulated ferrules, 10 mm"

❷ 250 V = Rated voltage
4 kV = Rated impulse voltage
3 = Pollution degree
(see Full Line Catalog)

❸ 3.5 mm spacing per signal (2 x 3.5 mm = 7 mm)

❹ For all approvals and corresponding ratings, visit www.wago.com.

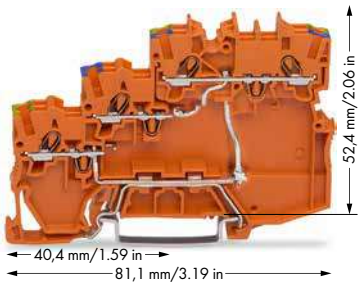
❺ See application notes in our Full Line Catalog.

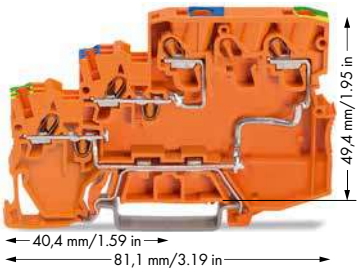
❻ Ground connection via commoning to terminal blocks with ground foot

Note:
The double spacing per pole of this terminal block series maximizes connectivity. For example **ten** sensors may be connected using only **five** sensor terminal blocks plus power supply terminal block.

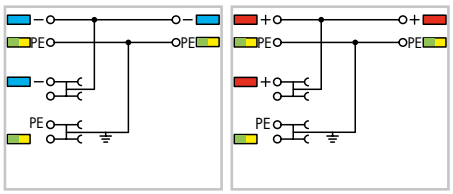
Color	Item No.	Pack. Unit
3-conductor actuator terminal block, for **PNP (high-side)** switching actuators, with ground connection		
gray	**2000-5317/102-000**	50
gray	**2000-5310/102-000**	50 ❻
3-conductor actuator terminal block, for **NPN (low-side)** switching actuators		
gray	**2000-5317/101-000**	50
gray	**2000-5310/101-000**	50 ❻

Color	Item No.	Pack. Unit
3-conductor actuator LED terminal block, for **PNP (high-side)** switching actuators, yellow LED, with ground connection		
gray	**2000-5317/1102-950**	50
gray	**2000-5310/1102-950**	50 ❻
3-conductor actuator LED terminal block, for **NPN (low-side)** switching actuators, yellow LED, with ground connection		
gray	**2000-5317/1101-951**	50
gray	**2000-5310/1101-951**	50 ❻

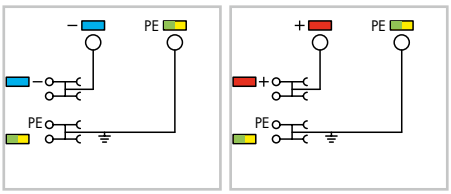




2000-5377/102-000 | 2000-5377/101-000



2000-5357/102-000 | 2000-5357/101-000



Color	Item No.	Pack. Unit
3-conductor actuator supply terminal block, max. 250 V, for **PNP (high-side)** switching actuators, with ground connection		
orange	**2000-5377/102-000**	15
3-conductor actuator supply terminal block, max. 250 V, for **NPN (low-side)** switching actuators, with ground connection		
orange	**2000-5377/101-000**	15

Color	Item No.	Pack. Unit
3-conductor actuator supply terminal block, max. 250 V, control panel side: 2.5 (4) mm², max. 28 A, for **PNP (high-side)** switching actuators, with ground connection		
orange	**2000-5357/102-000**	15
3-conductor actuator supply terminal block, max. 250 V, control panel side: 2.5 (4) mm², max. 28 A, for **NPN (low-side)** switching actuators, with ground connection		
orange	**2000-5357/101-000**	15

Accessories for 3-Conductor Terminal Blocks

Appropriate marking systems:
WMB/Marking Strips/WMB Inline

End and intermediate plate, 1 mm thick,
for 3-conductor terminal blocks
2000-5391 100

Push-in type jumper bar, insulated, ❺
IN 14 A, light gray
2-way **2000-402** 200
3-way **2000-403** 200
⋮ ⋮
10-way **2000-410** 100
. . ./**000-005** . . ./**000-006**
. . ./**000-018**

Push-in type jumper bar, insulated,
IN 14 A, light gray
1 to 3 **2000-433** 200
1 to 4 **2000-434** 200
⋮ ⋮
1 to 10 **2000-440** 100

Double-deck marker carrier,
pivoting
2000-121 50

Marking strip, plain,
11 mm wide,
50 m roll
2009-110 1

WMB Multi marking system, plain,
10 strips with 10 markers per card,
for 3.5 mm terminal block width
793-3501 5

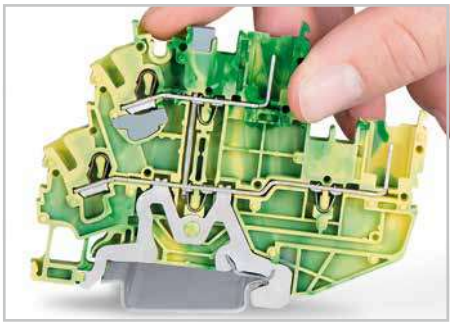
Operating tool with a partially insulated shaft,
type 1, (2.5 x 0.4) mm blade
210-719 1

Insulated ferrules, extra long,
for TOPJOB® S terminal blocks,
see page 259

X-COM®S-SYSTEM-MINI / X-COM®S-SYSTEM – Description and Installation –

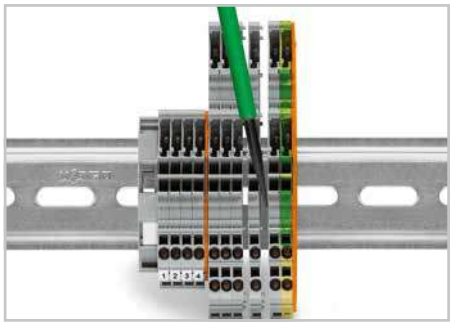
PUSH-IN CAGE CLAMP®

Mounting



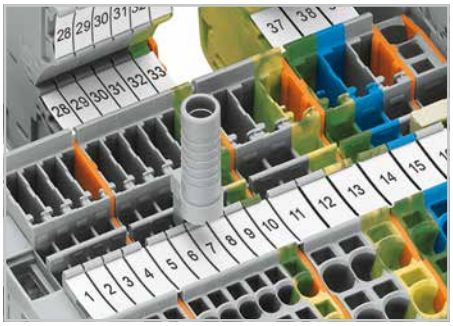
Snapping terminal block onto carrier rail.

Removal



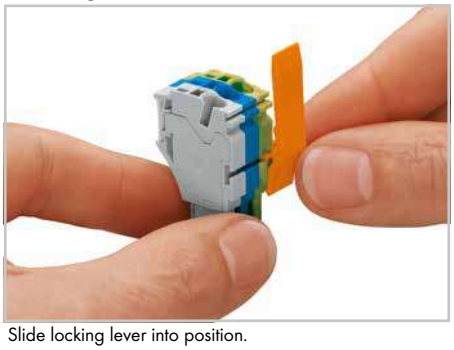
Separate terminal block assembly and slide individual terminal blocks laterally using an operating tool.

Testing



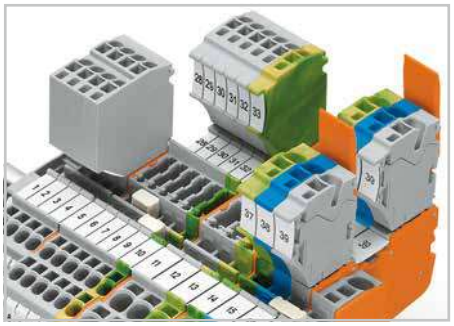
Test plug adapter for 4 mm test plugs or banana plugs – also suitable for X-COM®S-MINI Terminal Blocks.

Locking lever

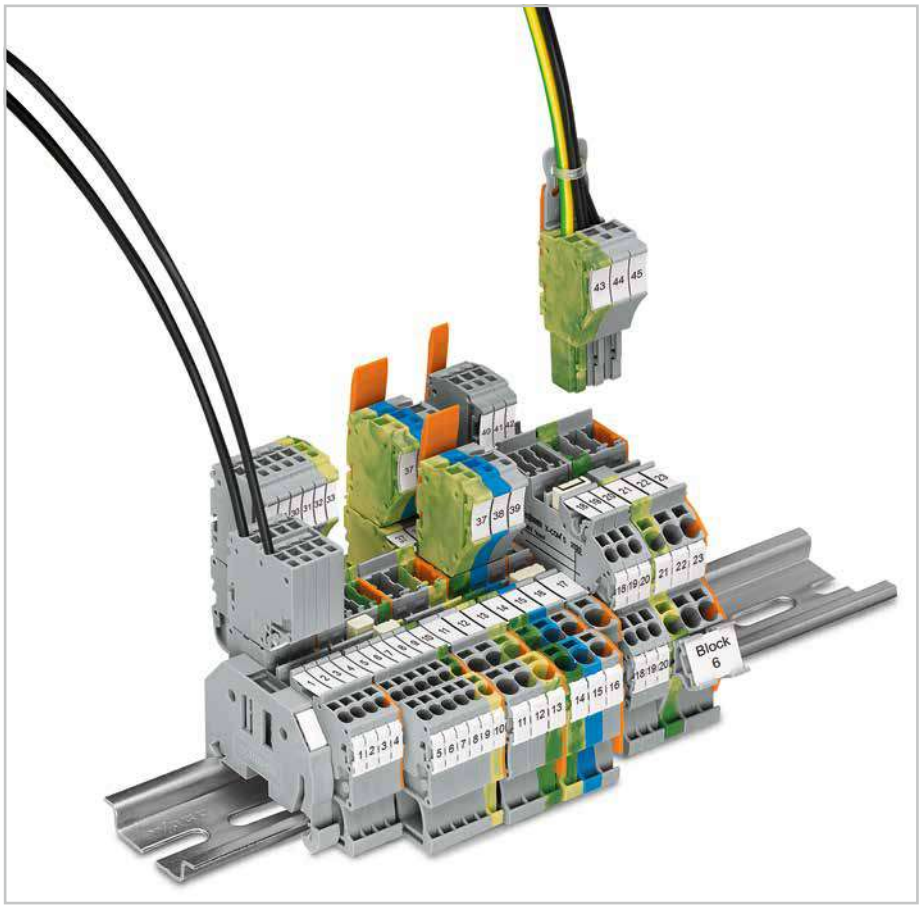


Slide locking lever into position.

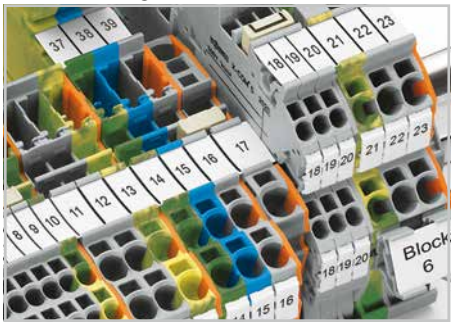
Locking lever



Female plugs can be individually locked.

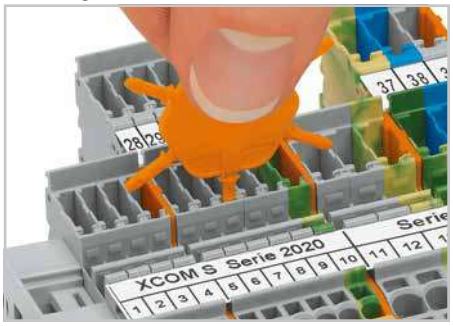


Commoning



Commoning X-COM® S Terminal Blocks with TOPJOB® S Jumpers. An end plate provides connection to TOPJOB® S Terminal Blocks.
2020 and 2022 Series Terminal Blocks are combinable. Jumper slots are on the same level for both series.

Coding



Insert coding pin into the corresponding slot and twist it off.

Coding



Remove coding finger using a cutting tool.

For information on Push-in CAGE CLAMP® connection, see page 14.

Appropriate marking systems: WMB/Marking Strips/WMB Inline

X-COM®S-SYSTEM-MINI
Carrier Terminal Blocks and Female Plugs
2020 Series

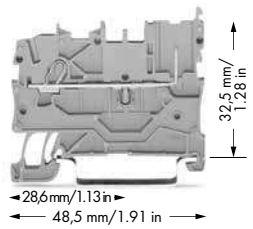
PUSH-IN CAGE CLAMP®

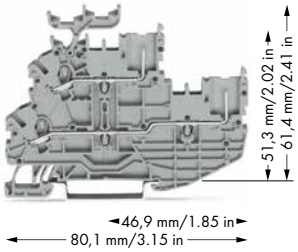
0.14 … 1 (1.5) mm² ❶ | 24 … 16 AWG
500 V/6 kV/3
I_N 13.5 A ❷
Terminal block width: 3.5 mm / 0.138 in.
9 … 11 mm / 0.39 in.
❸ Approvals

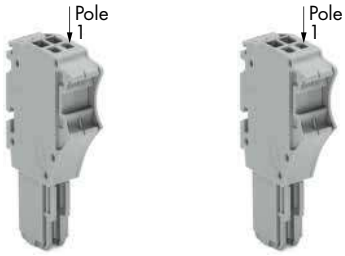
0.14 … 1 (1.5) mm² ❶ | 24 … 16 AWG
500 V/6 kV/3
I_N 13.5 A ❷
Terminal block width: 3.5 mm / 0.138 in.
9 … 11 mm / 0.39 in.
❸ Approvals

0.14 … 1 (1.5) mm² ❶ | 24 … 16 AWG
500 V/6 kV/3
I_N 13.5 A ❷
Module width: 3.5 mm / 0.138 in.
9 … 11 mm / 0.39 in.
❸ Approvals

❶ Conductor range: 0.14 … 1.5 mm² "s+f-st"
Push-in termination: 0.5 … 1.5 mm² "s" and 0.5 … 0.75 mm² "insulated ferrule, 10 mm"







Color	Item No.	Pack. Unit
1-conductor/1-pin carrier terminal block, for DIN-35 rail, per EN 60715		
gray	**2020-1201**	50
blue	**2020-1204**	50
1-conductor/1-pin ground carrier terminal block		
green-yellow	**2020-1207**	50
2-conductor/1-pin carrier terminal block,		
gray	**2020-1301**	50
blue	**2020-1304**	50
2-conductor/1-pin ground carrier terminal block		
green-yellow	**2020-1307**	50
2-conductor/2-pin carrier terminal block		
gray	**2020-1401**	50
blue	**2020-1404**	50
2-conductor/2-pin ground carrier terminal block		
green-yellow	**2020-1407**	50
Notice: An appropriate end plate must be applied to the carrier terminal blocks after each female plug.		

Color	Item No.	Pack. Unit
1-conductor/1-pin double-deck carrier terminal block, through/through terminal block, for DIN-35 rail, per EN 60715		
L/L	**2020-2231**	50
N/L	**2020-2232**	50
L/N	**2020-2233**	50
N/N	**2020-2234**	50
without marker carrier		
L/L	**2020-2201**	50
N/L	**2020-2202**	50
L/N	**2020-2203**	50
N/N	**2020-2204**	50
Ground conductor/through terminal block		
PE/N	**2020-2247**	50
PE/L	**2020-2257**	50
without marker carrier		
PE/N	**2020-2217**	50
PE/L	**2020-2227**	50
2-conductor/2-pin double-deck carrier terminal block, through/through terminal block, for DIN-35 rail, per EN 60715		
L	**2020-2238**	50
N	**2020-2239**	50
without marker carrier		
L	**2020-2208**	50
N	**2020-2209**	50
2-conductor/2-pin ground terminal block		
PE	**2020-2237**	50
without marker carrier		
PE	**2020-2207**	50

Color/Pole No.	Item No.	Pack. Unit
1-conductor female plug, to be inserted into carrier terminal blocks, with coding fingers, gray		
2-pole	**2020-102**	100
3-pole	**2020-103**	50
4-pole	**2020-104**	50
5-pole	**2020-105**	50
6-pole	**2020-106**	50
7-pole	**2020-107**	25
8-pole	**2020-108**	25
9-pole	**2020-109**	25
10-pole	**2020-110**	25
11-pole	**2020-111**	20
12-pole	**2020-112**	20
13-pole	**2020-113**	10
14-pole	**2020-114**	10
15-pole	**2020-115**	10
2-conductor female plug, to be inserted into carrier terminal blocks, with coding fingers, gray		
2-pole	**2020-202**	100
3-pole	**2020-203**	50
4-pole	**2020-204**	50
5-pole	**2020-205**	50
6-pole	**2020-206**	50
7-pole	**2020-207**	25
8-pole	**2020-208**	25
9-pole	**2020-209**	25
10-pole	**2020-210**	25
11-pole	**2020-211**	20
12-pole	**2020-212**	20
13-pole	**2020-213**	10
14-pole	**2020-214**	10
15-pole	**2020-215**	10

Item-Specific Accessories

End and intermediate plate, 1 mm thick, for 1-conductor/1-pin carrier terminal block



	2020-1292	100 (4x25)
	2020-1291	100 (4x25)

End and intermediate plate, 1 mm thick, for 2-conductor/1-pin carrier terminal block



	2020-1392	100 (4x25)
	2020-1391	100 (4x25)

End and intermediate plate, 1 mm thick, for 2-conductor/2-pin carrier terminal block



	2020-1492	100 (4x25)
	2020-1491	100 (4x25)

Item-Specific Accessories

End and intermediate plate, 1 mm thick, for 1-conductor/1-pin carrier terminal block



	2020-2292	100 (4x25)
	2020-2291	100 (4x25)

Accessories, 2020 Series (see 2000 Series, page 25)

Carrier with 6 coding pins,



for coding female plugs

	2020-100	100 (4x25)

Accessories, Female Plugs

Locking lever,



4.8 mm wide

	2022-142	100 (4x25)
	2022-141	100 (4x25)

Locking lever,



9.6 mm wide

	2022-152	100 (4x25)
	2022-151	100 (4x25)

Strain relief plate, gray



Width		
6 mm	**734-327**	100 (4x25)
12.5 mm	**734-328**	100 (4x25)
25 mm	**734-329**	100 (4x25)
35 mm	**734-326**	100 (4x25)

❷ Current-carrying capacity curves upon request ❸ For all approvals and corresponding ratings, visit www.wago.com.

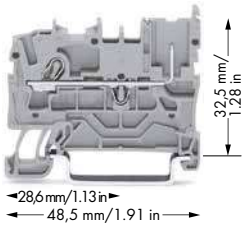
X-COM®S-SYSTEM
Carrier Terminal Blocks and Female Plugs
2022 Series

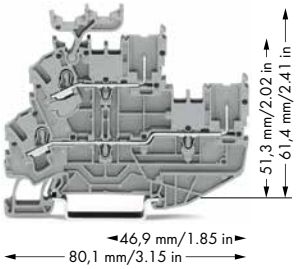
0.25 … 2.5 (4) mm² ❶ | 22 … 12 AWG
690 V/6 kV/3
I_N 24 A (32 A) ❷
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❸ Approvals

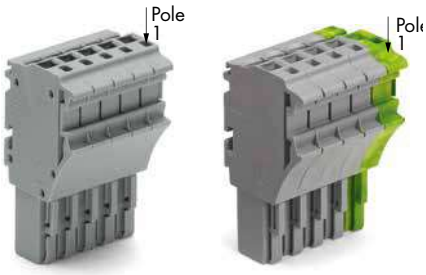
0.25 … 2.5 (4) mm² ❶ | 22 … 12 AWG
690 V/6 kV/3
I_N 24 A (32 A) ❷
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❸ Approvals

0.25 … 2.5 (4) mm² ❶ | 22 … 12 AWG
690 V/6 kV/3
I_N 24 A (32 A) ❷
Module width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❸ Approvals

❶ Conductor range: 0.25 … 4 mm2 “s+f-st”
Push-in termination: 0.75 … 4 mm2 “s” and 0.75 … 2.5 mm2 “insulated ferrule, 12 mm”







Color	Item No.	Pack. Unit
1-conductor/1-pin carrier terminal block, for DIN-35 rail, per EN 60715		
gray	**2022-1201**	100
blue	**2022-1204**	100
orange	**2022-1202**	100
1-conductor/1-pin ground carrier terminal block		
green-yellow	**2022-1207**	100
2-conductor/1-pin carrier terminal block		
gray	**2022-1301**	100
blue	**2022-1304**	100
orange	**2022-1302**	100
2-conductor/1-pin ground carrier terminal block		
green-yellow	**2022-1307**	100
2-conductor/2-pin carrier terminal block		
gray	**2022-1401**	50
blue	**2022-1404**	50
orange	**2022-1402**	50
2-conductor/2-pin ground carrier terminal block		
green-yellow	**2022-1407**	50

Color	Item No.	Pack. Unit
1-conductor/1-pin double-deck carrier terminal block, through/through terminal block, for DIN-35 rail, per EN 60715		
L/L	**2022-2231**	50
N/L	**2022-2232**	50
L/N	**2022-2233**	50
N/N	**2022-2234**	50
without marker carrier		
L/L	**2022-2201**	50
N/L	**2022-2202**	50
L/N	**2022-2203**	50
N/N	**2022-2204**	50
Ground conductor/through terminal block		
PE/N	**2022-2247**	50
PE/L	**2022-2257**	50
without marker carrier		
PE/N	**2022-2217**	50
PE/L	**2022-2227**	50
2-conductor/2-pin double-deck carrier terminal block, through/through terminal block, for DIN-35 rail, per EN 60715		
L	**2022-2238**	50
N	**2022-2239**	50
without marker carrier		
L	**2022-2208**	50
N	**2022-2209**	50
2-conductor/2-pin ground terminal block		
PE	**2022-2237**	50
without marker carrier		
PE	**2022-2207**	50

Color/Pole No.	Item No.	Pack. Unit
1-conductor female plug, to be inserted into carrier terminal blocks, with coding fingers, gray		
1-pole	**2022-101**	200
2-pole	**2022-102**	200
3-pole	**2022-103**	100
15-pole	**2022-115**	25
1-conductor female plug with ground base module, to be inserted into carrier terminal blocks, with coding fingers, gray/green-yellow		
3-pole	**2022-103/000-036**	100
4-pole	**2022-104/000-036**	100
5-pole	**2022-105/000-036**	50
15-pole	**2022-115/000-036**	25
1-conductor female plug with ground end module, to be inserted into carrier terminal blocks, with coding fingers, gray/green-yellow		
3-pole	**2022-103/000-037**	100
4-pole	**2022-104/000-037**	100
5-pole	**2022-105/000-037**	50
15-pole	**2022-115/000-037**	25

Item-Specific Accessories

End and intermediate plate, 1 mm thick, for 1-conductor/1-pin carrier terminal block



orange	**2022-1292**	100 (4x25)
gray	**2022-1291**	100 (4x25)

End and intermediate plate, 1 mm thick, for 2-conductor/1-pin carrier terminal block



orange	**2022-1392**	100 (4x25)
gray	**2022-1391**	100 (4x25)

End and intermediate plate, 1 mm thick, for 2-conductor/2-pin carrier terminal block



orange	**2022-1492**	100 (4x25)
gray	**2022-1491**	100 (4x25)

Item-Specific Accessories

End and intermediate plate, 1 mm thick, for 1-conductor/1-pin carrier terminal block



orange	**2022-2292**	100 (4x25)
gray	**2022-2291**	100 (4x25)

Accessories, Female Plugs

Locking lever,



4.8 mm wide

orange	**2022-142**	100 (4x25)
gray	**2022-141**	100 (4x25)

Locking lever,



9.6 mm wide

orange	**2022-152**	100 (4x25)
gray	**2022-151**	100 (4x25)

Strain relief plate, gray



Width		
6 mm	**734-327**	100 (4x25)
12.5 mm	**734-328**	100 (4x25)
25 mm	**734-329**	100 (4x25)
35 mm	**734-326**	100 (4x25)
55 mm	**734-430**	100 (4x25)
75 mm	**734-431**	100 (4x25)

Accessories, 2022 Series (see 2002 Series, page 27)

Carrier with 6 coding pins,



for coding female plugs

orange	**2022-100**	100 (4x25)

❷ Current-carrying capacity curves upon request ❸ For all approvals and corresponding ratings, visit www.wago.com.

X-COM®S-SYSTEM
Carrier Terminal Blocks and Female Plugs for Ex nA Applications
2022 Series

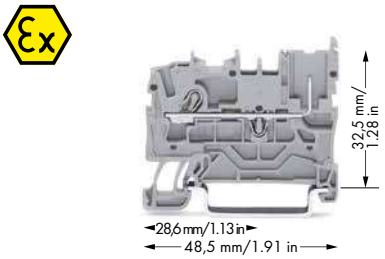
PUSH-IN CAGE CLAMP®

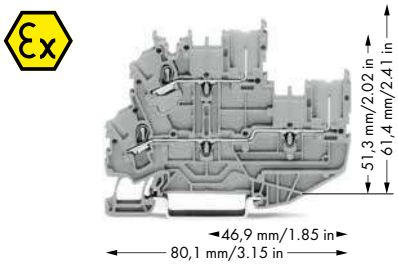
0.25 … 2.5 (4) mm² ❶ | 22 … 12 AWG
630 V
I_N 20 A
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❸ Approvals

0.25 … 2.5 (4) mm² ❶ | 22 … 12 AWG
630 V
I_N 20 A
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❸ Approvals

0.25 … 2.5 (4) mm² ❶ | 22 … 12 AWG
630 V
I_N 20 A
Module width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❸ Approvals

❶ Conductor range: 0.25 … 4 mm2 “s+f-st”
Push-in termination: 0.75 … 4 mm2 “s” and 0.75 … 2.5 mm2 “insulated ferrule, 12 mm”







Color	Item No.	Pack. Unit
1-conductor/1-pin carrier terminal block,		
for DIN-35 rail, per EN 60715		
gray	**2022-1201/999-953**	100
blue	**2022-1204/999-953**	100
1-conductor/1-pin ground carrier terminal block		
green-yellow	**2022-1207/999-953**	100
2-conductor/1-pin carrier terminal block		
gray	**2022-1301/999-953**	100
blue	**2022-1304/999-953**	100
2-conductor/1-pin ground carrier terminal block		
green-yellow	**2022-1307/999-953**	100
2-conductor/2-pin carrier terminal block		
gray	**2022-1401/999-953**	50
blue	**2022-1404/999-953**	50
2-conductor/2-pin ground carrier terminal block		
green-yellow	**2022-1407/999-953**	50

Color	Item No.	Pack. Unit
1-conductor/1-pin double-deck carrier terminal block, through/through terminal block,		
for DIN-35 rail, per EN 60715		
N/N	**2022-2234/999-953**	50
without marker carrier		
L/L	**2022-2201/999-953**	50
2-conductor/2-pin ground terminal block		
without marker carrier		
PE	**2022-2207/999-953**	50

Color/Pole No.	Item No.	Pack. Unit
1-conductor female plug with shorter locking lever,		
to be inserted into carrier terminal blocks,		
with coding fingers, gray		
2-pole	**2022-102/999-953**	200
3-pole	**2022-103/999-953**	50
4-pole	**2022-104/999-953**	50
5-pole	**2022-105/999-953**	50
6-pole	**2022-106/999-953**	50
7-pole	**2022-107/999-953**	25
8-pole	**2022-108/999-953**	25

X-COM®S-SYSTEM complies with ignition protection type “nA” in Zone 2.

“n” refers to an ignition protection class in Zone 2:
This zone covers areas in which a dangerous, explosive atmosphere consisting of gases, vapors or dust is unlikely to exist and will only persist for a short period if it does.

“A” means: non-sparking (function modules without relays/switches)

Ex marking:
“Ex” sign and extended item number “…/999-953” are printed on the side of both carrier terminal blocks and female plugs with Ex approval.
Shorter locking lever (factory-mounted) makes accidental disconnection more difficult.



Item-Specific Accessories

End and intermediate plate, 1 mm thick, for 1-conductor/1-pin carrier terminal block



	2022-1292	100 (4x25)
	2022-1291	100 (4x25)

End and intermediate plate, 1 mm thick, for 2-conductor/1-pin carrier terminal block



	2022-1392	100 (4x25)
	2022-1391	100 (4x25)

End and intermediate plate, 1 mm thick, for 2-conductor/2-pin carrier terminal block



	2022-1492	100 (4x25)
	2022-1491	100 (4x25)

Item-Specific Accessories

End and intermediate plate, 1 mm thick, for 1-conductor/1-pin carrier terminal block



	2022-2292	100 (4x25)
	2022-2291	100 (4x25)

Accessories, 2022 Series (see 2002 Series, page 27)

Carrier with 6 coding pins,



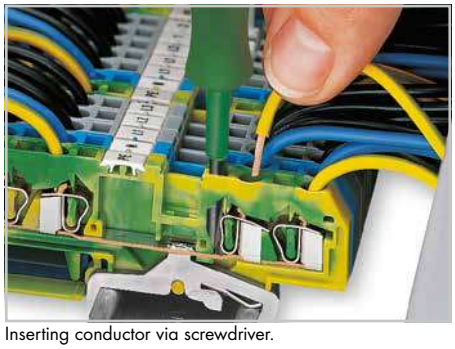
for coding female plugs

	2022-100	100 (4x25)

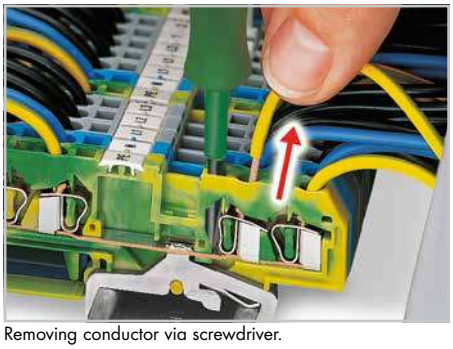
❷ Current-carrying capacity curves upon request ❸ For all approvals and corresponding ratings, visit www.wago.com.

Classic Rail-Mounted Terminal Blocks – Description and Handling –

Conductor termination/removal

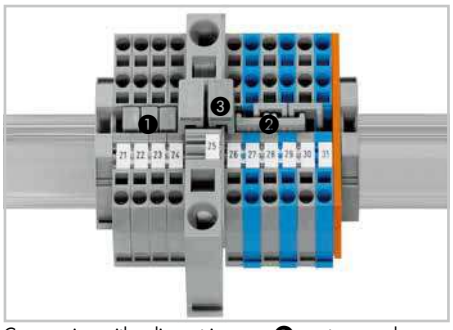


Inserting conductor via screwdriver.



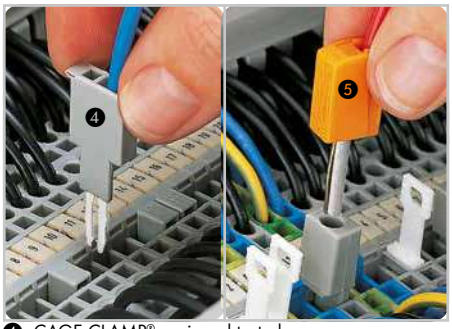
Removing conductor via screwdriver.

Commoning

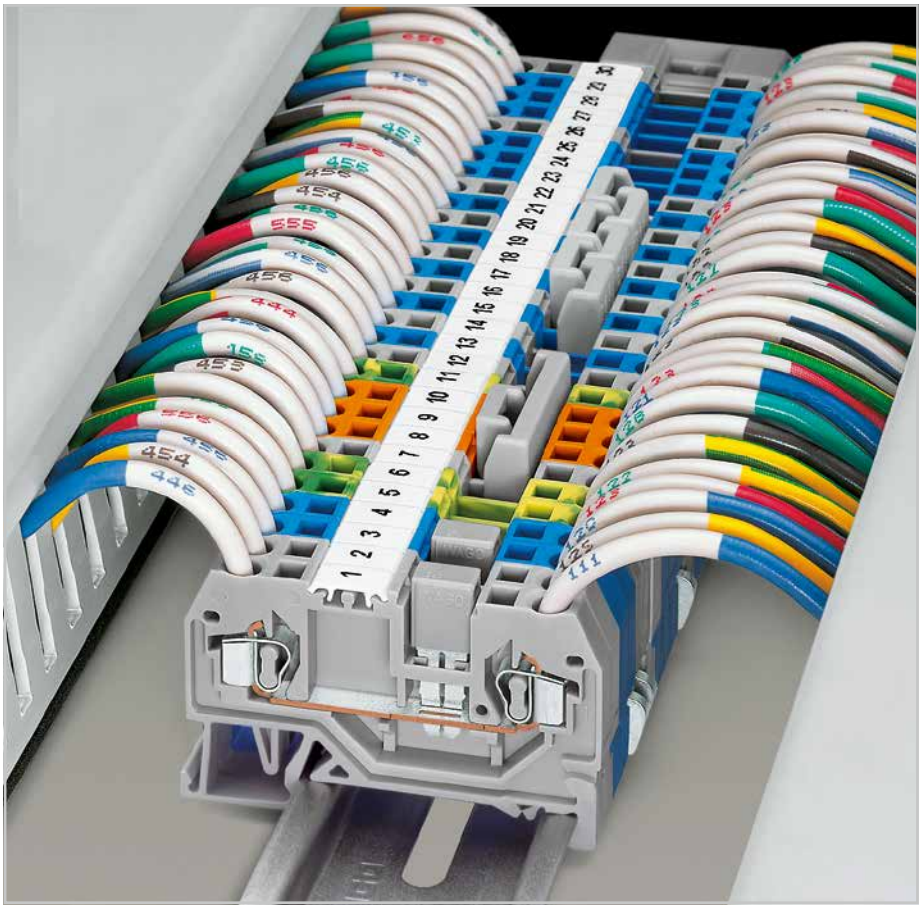


Commoning with adjacent jumpers ❶ or staggered jumpers ❷.
Commoning terminal blocks of different sizes – with step down jumpers ❸.

Testing

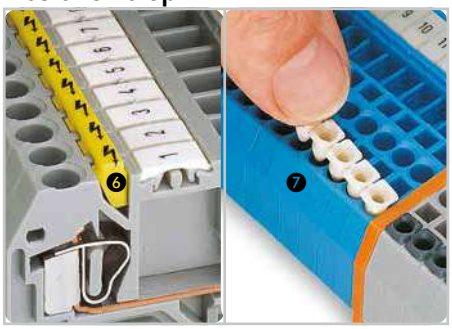


❹ CAGE CLAMP®-equipped test plug
❺ Test plug (4 mm Ø) via test plug adapter (209-170)



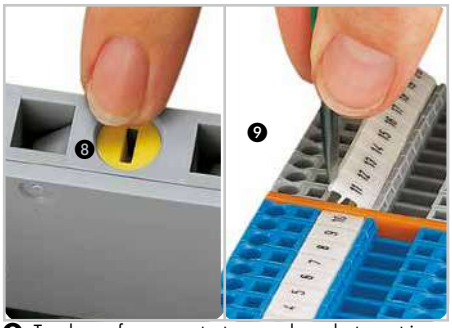
Compact rail-mounted terminal blocks 870 Series, see Full Line Catalog

Protective warning marker/ Insulation stop



❻ Protective warning marker accommodated in operating tool slots
❼ Inserting insulation stop.

Finger guard

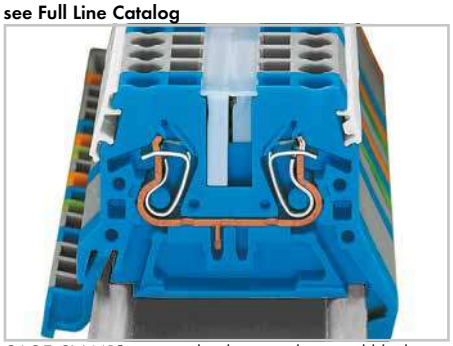


❽ Touch-proof cover protects unused conductor entries.
❾ Marking via WMB Multi markers.

Marking



Marking WMB markers via IP200 Plotter or ***smart***PRINTER.



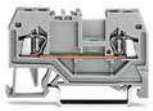
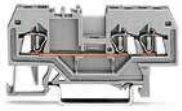
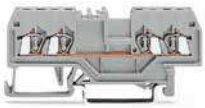
CAGE CLAMP®-equipped rail-mounted terminal blocks

For information on Push-in CAGE CLAMP® connection, see page 14.

CAGE CLAMP®

Classic Rail-Mounted Terminal Blocks 1.5 / 2.5 / 4 mm²

279 ... 281 Series

		279 Series 800 V, I_N 18 A 0.08 ... **1.5** mm² / 28 ... 16 AWG			280 Series 800 V, I_N 24 A 0.08 ... **2.5** mm² / 28 ... 12 AWG			281 Series 800 V, I_N 32 A 0.08 ... **4** mm² / 28 ... 12 AWG		
	Description	**Color**	**Item No.**	**Pack. Unit**	**Color**	**Item No.**	**Pack. Unit**	**Color**	**Item No.**	**Pack. Unit**
 **2-Conductor**	Through terminal block		**279-901**	100		**280-901**	100		**281-901**	100
	Through terminal block (Ex i)		**279-904**	100		**280-904**	100		**281-904**	100
	Through terminal block		**279-902**	100		**280-902**	100		**281-902**	100
	Through terminal block		**279-903**	100		**280-903**	100		**281-903**	100
	Through terminal block		**279-905**	100		**280-905**	100		**281-905**	100
	Through terminal block		**279-906**	100		**280-906**	100		**281-906**	100
	Through terminal block (Ex e II)		**279-992**	100		**280-992**	100		**281-992**	100
	Carrier terminal block		–			**280-916**	100		**281-916**	50
	Ground conductor terminal block		**279-907**	100		**280-907**	100		**281-907**	100
	End and intermediate plate		**279-328**	100		**280-309**	100		**281-329**	100
			279-325	100		**280-308**	100		**281-328**	100
 **3-Condutor**	Through terminal block		**279-681**	100		**280-681**	100		**281-681**	100
	Through terminal block (Ex i)		**279-684**	100		**280-684**	100		**281-684**	100
	Through terminal block		**279-682**	100		**280-650**	100		**281-678**	100
	Through terminal block		**279-683**	100		**280-653**	100		**281-679**	100
	Through terminal block		**279-685**	100		**280-671**	100		**281-685**	100
	Through terminal block		**279-686**	100		**280-672**	100		**281-686**	100
	Through terminal block (Ex e II)		**279-993**	100		**280-993**	100		**281-993**	100
	Carrier terminal block		–			**280-610**	100		**281-610**	50
	Ground conductor terminal block		**279-687**	100		**280-687**	100		**281-687**	100
	End and intermediate plate		**279-339**	100		**280-326**	100		**281-326**	100
			279-308	100		**280-324**	100		**281-324**	100
 **4-Condutor**	Through terminal block		**279-831**	50		**280-833**	50		**281-652**	50
	Through terminal block (Ex i)		**279-834**	50		**280-834**	50		**281-654**	50
	Through terminal block		**279-832**	50		**280-835**	50		**281-653**	50
	Through terminal block		**279-833**	50		**280-830**	50		**281-663**	50
	Through terminal block		**279-835**	50		**280-831**	50		**281-664**	50
	Through terminal block		**279-836**	50		**280-832**	50		**281-668**	50
	Through terminal block (Ex e II)		**279-994**	50		**280-994**	50		**281-994**	50
	Carrier terminal block		–			**280-816**	100		**281-816**	50
	Ground conductor terminal block		**279-837**	50		**280-837**	50		**281-657**	50
	End and intermediate plate		**279-346**	100		**280-315**	100		**281-335**	100
			279-344	100		**280-314**	100		**281-334**	100

		280 Series, 800 V, I_N 24 A 0.08 ... **2.5** mm² / 28 ... 12 AWG			281 Series, 800 V, I_N 32 A 0.08 ... **4** mm² / 28 ... 12 AWG		
Technical Data	**Description**	**Color**	**Item No.**	**Pack. Unit**	**Color**	**Item No.**	**Pack. Unit**
 **3-Condutor**	Through terminal block		**280-641**	100		**281-631**	100
	Through terminal block (Ex i)		**280-651**	100		**281-651**	100
	Through terminal block		**280-654**	100		–	–
	Through terminal block (Ex e II)		**280-998**	100		**281-998**	100
	Ground conductor terminal block		**280-637**	100		**281-637**	100
	End and intermediate plate, 2.5 mm thick		**280-313**	100		**281-313**	100
			280-312	100		**281-312**	100
 **4-Condutor**	Through terminal block		**280-646**	100		–	–
	Through terminal block (Ex i)		**280-656**	100		–	–
	Through terminal block		**280-946**	100		–	–
	Through terminal block (Ex e II)		**280-996**	100		–	–
	Ground conductor terminal block		–	–		–	–
	End and intermediate plate, 2.5 mm thick		**280-313**	100		–	–
			280-312	100		–	–

For suitable adjacent jumpers, see page 72.

Notice: 280-646 blocks and their colored variants cannot be commoned.

Classic Rail-Mounted Terminal Blocks 6 / 10 / 16 / 35 mm²
282 ... 285 Series

Technical Data	Description	282 Series, 800 V, I_N 41 A, 0.2 ... **6** mm² / 24 ... 10 AWG			284 Series, 800 V, I_N 57 A, 0.2 ... **10** mm² / 24 ... 8 AWG			283 Series, 800 V, I_N 76 A, 0.2 ... **16** mm² / 24 ... 6 AWG		
		Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit
 2-Conductor	Through terminal block		**282-901**	50		**284-901**	25		**283-901**	20
	Through terminal block (Ex i)		**282-904**	50		**284-904**	25		**283-904**	20
	Through terminal block		**282-902**	50		**284-902**	25		**283-902**	20
	Through terminal block (Ex e II)		**282-992**	50		**284-992**	25		**283-992**	20
	Ground conductor terminal block		**282-907**	50		**284-907**	25		**283-907**	20
	End and intermediate plate		**282-328**	100		**284-328**	100		**283-328**	50
			282-325	100		**284-325**	100		**283-325**	50
 3-Condutor	Through terminal block		**282-681**	25		**284-681**	25		**283-671**	20
	Through terminal block (Ex i)		**282-684**	25		**284-684**	25		**283-674**	20
	Through terminal block		**282-682**	25		**284-682**	25		**283-672**	20
	Through terminal block (Ex e II)		**282-993**	25		**284-993**	25		**283-998**	20
	Ground conductor terminal block		**282-687**	25		**284-687**	25		**283-677**	20
	End and intermediate plate		**282-339**	100		**284-339**	100		**283-352**	50
			282-308	100		**284-308**	100		**283-350**	50

Technical Data	Description	285 Series with integrated end plate, 1000 V, I_N 125 A, 6 ... **35 mm² / 8 ... 2 AWG**		
		Color	Item No.	Pack. Unit
 2-Conductor	Through terminal block		**285-635**	15
	Through terminal block (Ex i)		**285-634**	15
	Through terminal block (Ex e II)		**285-992**	15
	Ground conductor terminal block		**285-637**	15

Technical Data	Description	284 Series, 800 V, I_N 125 A, 3 x CAGE CLAMP® 0.2 ... **10 mm²** / 24 ... 8 AWG, 1 x screw clamp 6 ... **35 mm** / 10 ... 2 AWG		
		Color	Item No.	Pack. Unit
	Distribution terminal block		**284-621**	15
	Distribution terminal block		**284-624**	15
	Comb-style jumper bar		**284-412**	100

Adjacent Jumpers for 279 ... 284 Series

	Compatible with	Nominal Current	Color	Item No.	Pack. Unit
	279 Series	I_N 15 A		**279-402**	200
				279-422	200
	280 Series	I_N = I_N terminal block		**280-402**	200
				280-422	200
	281 Series	I_N = I_N terminal block		**281-402**	200
				281-422	200
	282 Series	I_N 41 A		**282-402**	100
				282-422	100
	284 Series	I_N 57 A		**284-402**	100
				284-422	100
	283 Series	I_N 70 A		**283-402**	50
				283-422	50

Staggered Jumpers for 280 and 281 Series

	Description		Color	Item No.	Pack. Unit
	for 280 Series, 5 mm wide, I_N 24 A	1 to 2		**780-452**	100
		1 to 3		**780-453**	100
		1 to 4		**780-454**	100
		1 to 5		**780-455**	50
		1 to 6		**780-456**	50
		1 to 7		**780-457**	50
		1 to 8		**780-458**	50
	for 281 Series, 6 mm wide, I_N 32 A	1 to 2		**781-452**	100
		1 to 3		**781-453**	100
		1 to 4		**781-454**	100
		1 to 5		**781-455**	50
		1 to 6		**781-456**	50

Vertical Jumper for Double- and Triple-Deck Terminal Blocks

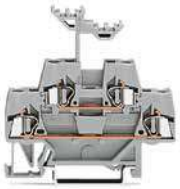
	Description	Item No.	Pack. Unit
	insulated, I_N 24 A, gray	**281-421**	200

Classic Double-/Triple-Deck and Electric Motor Wiring Rail-Mounted Terminal Blocks

279 ... 281 Series

CAGE CLAMP®

1

	Technical Data	Description	Color	Item No.	Pack. Unit
	**279 Series** 0.08 ... **1.5 mm²** / 28 ... 16 AWG I_N 18 A, 500 V	Through/through terminal block, L/L		**279-501**	50
		Through/through terminal block, N/L		**279-512**	50
		Through/through terminal block, L/N		**279-513**	50
		Through/through terminal block, N/N (Ex i)		**279-504**	50
		Ground conductor/through terminal block, PE/N		**279-517**	50
		Ground conductor/through terminal block, PE/L		**279-527**	50
		3-conductor through terminal block, L		**279-508**	50
		4-conductor through terminal block, N (Ex i)		**279-509**	50
		4-conductor ground terminal block, PE		**279-507**	50
		End and intermediate plate		**279-519**	100
				279-518	100
	**280 Series** 0.08 ... **2.5 mm²** / 28 ... 12 AWG I_N 20 A, 500 V	Through/through terminal block		**280-519**	50
		Through/through terminal block (Ex i)		**280-529**	50
		Through/through terminal block (blue/gray)		**280-523**	50
		Through/through terminal block (gray/blue)		**280-533**	50
		Ground conductor/through terminal block (green-yellow/gray)		**280-527**	50
		Ground conductor/through terminal block (green-yellow/blue)		**280-537**	50
		4-conductor ground terminal block, internally commoned		**280-517**	50
	280 Series 0.08 ... **2.5 mm²** / 28 ... 12 AWG I_N 20 A, 500 V	Through/through terminal block*		**280-520**	50
		Through/through terminal block*		**280-530**	50
		Through/through terminal block*		**280-524**	50
		Through/through terminal block*		**280-534**	50
		End and intermediate plate		**280-341**	50
				280-340	50
		End and intermediate plate (for additional horizontal commoning)		**280-343**	50
				280-342	50
	**280 Series** 0.08 ... **2.5 mm²** / 28 ... 12 AWG I_N 20 A, 500 V	Through/through/through terminal block		**280-549**	40
		Through/through/through terminal block (Ex i)		**280-551**	40
		Through/through/through terminal block		**280-552**	40
		Ground conductor/through/through terminal block		**280-557**	40
		Ground conductor/through/through terminal block		**280-547**	40
		Shield conductor/through/through terminal block		**280-548**	40
		Shield conductor/through/through terminal block		**280-558**	40
		6-conductor ground terminal block, internally commoned		**280-597**	40
		Ground conductor/through/carrier terminal block		**280-510**	50
		Through/through/through terminal block with additional jumper position on lower level		**280-550**	40
		End and intermediate plate		**280-304**	50
				280-303	50
		End and intermediate plate (for additional horizontal commoning)		**280-306**	50
				280-305	50
	**281 Series** 0.08 ... **4 mm²** / 28 ... 12 AWG I_N 26 A, 500 V	Through/through terminal block		**281-619**	50
		Through/through terminal block (Ex i)		**281-629**	50
		Through/through terminal block*		**281-620**	50
		Through/through terminal block*		**281-630**	50
		End and intermediate plate		**281-341**	100
				281-340	100
		End and intermediate plate (for additional horizontal commoning)		**281-343**	100
				281-342	100
	**281 Series** 0.08 ... **4 mm²** / 28 ... 12 AWG I_N 20 A (2.5 mm²), 400 V I_N 25 A (4 mm²), 400 V	Quadruple-deck terminal block, L1 - L2 - L3 - PE		**281-530**	50
		Quadruple-deck terminal block, L1 - L2		**281-531**	50
		Quadruple-deck terminal block, L1 - L2 - L3		**281-532**	50
		End and intermediate plate		**281-366**	100
				281-365	100

For 279, 280 and 281 Series accessories, see www. wago.com and Full Line Catalog.

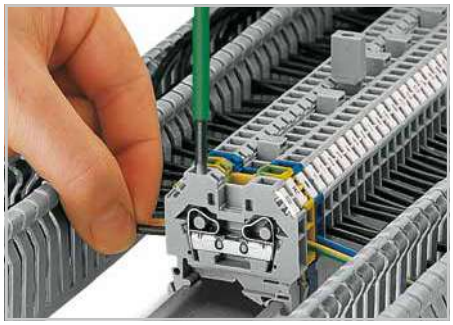
*with additional jumper position

Classic Side-Entry Rail-Mounted Terminal Blocks 1.5 … 16 mm²
279 … 284 Series

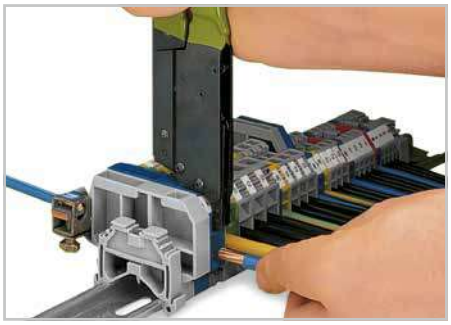
	Technical Data	Description	Color	Item No.	Pack. Unit
	**279 Series** 0.08 … **1.5 mm²** / 28 … 16 AWG I_N 18 A, 800 V Terminal block width: 4 mm / 0.157 in. Strip length: 8 … 9 mm / 0.33 in.	2-conductor through terminal block		**279-101**	100
		2-conductor through terminal block (Ex i)		**279-104**	100
		End and intermediate plate, 2.5 mm thick		**279-302**	100
				279-301	100
	**280 Series** 0.08 … **2.5 mm²** / 28 … 12 AWG I_N 24 A, 800 V Terminal block width: 5 mm / 0.197 in. Strip length: 8 … 9 mm / 0.33 in.	2-conductor through terminal block		**280-101**	100
		2-conductor through terminal block (Ex i)		**280-104**	100
		2-conductor ground terminal block		**280-107**	100
		End and intermediate plate, 2.5 mm thick		**280-302**	100
				280-301	100
	**281 Series** 0.08 … **4 mm²** / 28 … 12 AWG I_N 32 A, 800 V Terminal block width: 6 mm / 0.236 in. Strip length: 9 … 10 mm / 0.37 in.	2-conductor through terminal block		**281-101**	100
		2-conductor through terminal block (Ex i)		**281-104**	100
		2-conductor ground terminal block		**281-107**	100
		End and intermediate plate, 3 mm thick		**281-302**	100
				281-301	100
	**282 Series** 0.2 … **6 mm²** / 28 … 12 AWG I_N 41 A, 800 V Terminal block width: 8 mm / 0.315 in. Strip length: 12 … 13 mm / 0.49 in.	2-conductor through terminal block		**282-101**	50
		2-conductor through terminal block (Ex i)		**282-104**	50
		2-conductor ground terminal block		**282-107**	50
		End and intermediate plate, 4 mm thick		**282-302**	100
				282-301	100
	**284 Series** 0.2 … **10 mm²** / 24 … 8 AWG I_N 57 A, 800 V Terminal block width: 10 mm / 0.394 in. Strip length: 12 … 13 mm / 0.49 in.	2-conductor through terminal block		**284-101**	50
		2-conductor through terminal block (Ex i)		**284-104**	50
		2-conductor ground terminal block		**284-107**	50
		End and intermediate plate, 2.5 mm thick		**284-302**	100
				284-301	100
	**283 Series** 0.2 … **16 mm²** / 24 … 6 AWG I_N 76 A, 800 V Terminal block width: 12 mm / 0.472 in. Strip length: 16 … 17 mm / 0.65 in.	2-conductor through terminal block		**283-101**	50
		2-conductor through terminal block (Ex i)		**283-104**	50
		2-conductor ground terminal block		**283-107**	50
		End and intermediate plate, 4 mm thick		**283-302**	50
				283-301	50

For suitable jumpers, see page 72.

Conductor termination

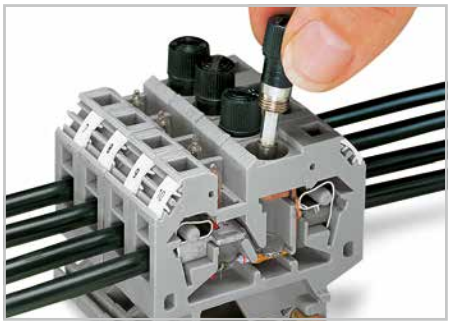


Open the clamping unit using a screwdriver and insert stripped conductor until it hits backstop.



The plunger (210-141) is placed into the upper operating slot of a side-entry terminal block and the clamp is hooked into the lateral operating slot. The contact is fully opened by pressing the handles together until they engage.
Insert stripped conductor until it hits backstop.

Fuse terminal blocks



Replacing a fuse.

Classic Side-Entry Function Terminal Blocks
Disconnect/Test Terminal Blocks, Fuse Terminal Blocks, Step-Down Jumpers
282 Series

CAGE CLAMP®

Disconnect/Test Terminal Blocks

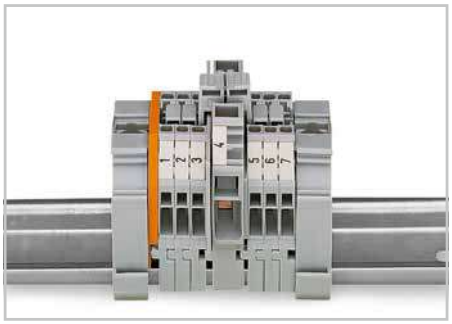
	Technical Data	Description	Color	Item No.	Pack. Unit
	**282 Series** 0.2 … **6 mm²** / 24 … 10 AWG I_N 41 A, 400 V Terminal block width: 8 mm / 0.315 in. Strip length: 12 … 13 mm / 0.49 in.	Disconnect/test terminal block, with 4 mm Ø test sockets		**282-131**	25
		Through terminal block		**282-133**	25
		Disconnect/test terminal block, without test sockets		**282-135**	25
	**282 Series** 0.2 … **6 mm²** / 24 … 10 AWG Terminal block width: 16 mm / 0.63 in. Strip length: 12 … 13 mm / 0.49 in.	Ground conductor disconnect terminal block, 24 V		**282-140**	12
		Ground conductor disconnect terminal block, 48 V		**282-141**	12
		Ground conductor disconnect terminal block, 120 V		**282-138**	12
		Ground conductor disconnect terminal block, 230 V		**282-139**	12
		End and intermediate plate, 4 mm thick		**282-315**	50
				282-314	50
		Lock-out, snap-on type, prevents reclosing of slide link		**282-137**	100

Fuse Terminal Blocks

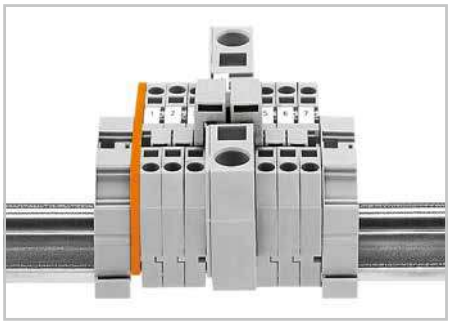
	Technical Data	Description	Color	Item No.	Pack. Unit
	**282 Series** **2-conductor fuse terminal blocks** 0.2 … **6 mm²** / 24 … 10 AWG I_N 10 A, 500 V Terminal block width: 13 mm / 0.512 in. Strip length: 12 … 13 mm / 0.49 in.	Without indicator, for 5 x 20 mm miniature metric fuses		**282-122**	40
		Without indicator, for 1/4" x 1" miniature metric fuses		**282-120**	40
		Without indicator, for 1/4" x 1 1/4" miniature metric fuses		**282-128**	40
		With indicator, for 5 x 25 mm miniature metric fuses		**282-126**	40
	**282 Series** **2-conductor fuse terminal blocks** 0.2 … **6 mm²** / 24 … 10 AWG Terminal block width: 13 mm / 0.512 in. Strip length: 12 … 13 mm / 0.49 in.	With red LED 24 VDC, for 1/4" x 1 1/4" miniature metric fuses		**282-128/281-413**	40
		With blown fuse indication by neon lamp, 250 VAC/220 VDC, for 1/4" x 1 1/4" miniature metric fuses		**282-128/281-417**	40
		With blown fuse indication by neon lamp, 250 VAC/220 VDC, for 5 x 20 mm miniature metric fuses		**282-124**	40
		With blown fuse indication by neon lamp, 120 V AC/DC, for 1/4" x 1 1/4" miniature metric fuses		**282-128/281-418**	40
		End and intermediate plate, 4 mm thick		**282-312**	50
				282-311	50

Step-Down Jumpers

	Technical Data	Description	Color	Item No.	Pack. Unit
	Insulated, I_N 15 A	From 10/6 mm² to 4/2.5/1.5 mm²		**284-414**	50
		From 10/6 mm² to 6/4 mm²		**284-413**	50
	Insulated, I_N 32 A	From 16 mm² to 4 mm²		**283-414**	50



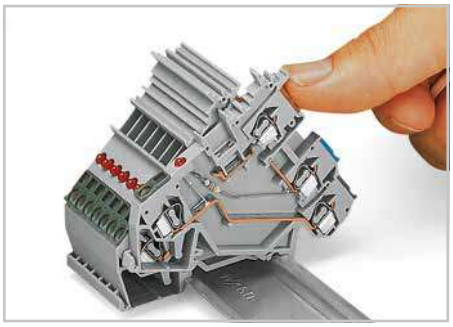
Commoning from 6 mm² (282 Series) to 1.5 mm² (279 Series) rail-mounted terminal blocks via step-down jumpers.



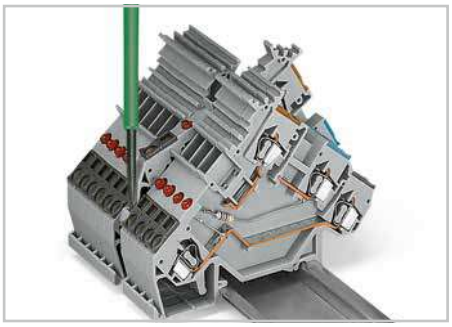
Commoning from 16 mm² (283 Series) to 4 mm² (281 Series) rail-mounted terminal blocks via step-down jumpers.

Classic Sensor and Actuator Terminal Blocks – Description and Installation –

Mounting

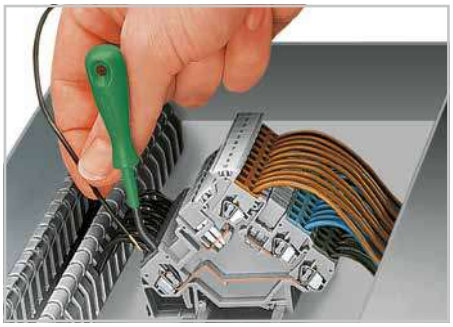


Snapping terminal block onto carrier rail. Terminal blocks with a grounding foot automatically establish a direct contact to the rail.



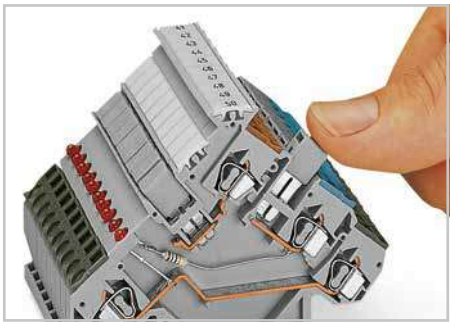
Removing the terminal block from carrier rail.
Notice: Remove jumper contacts first.

CAGE CLAMP® connection



Inserting conductor via angled (3.5 x 0.5) mm screwdriver.

Commoning

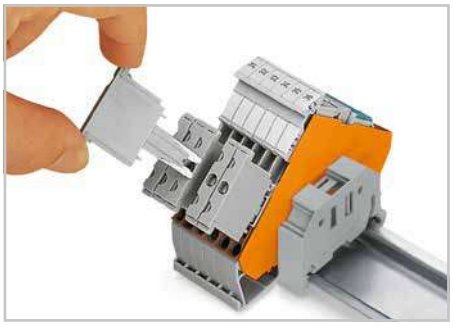


Commoning with adjacent jumpers – push jumper down until fully inserted.

Actuator terminal blocks (see Full Line Catalog)

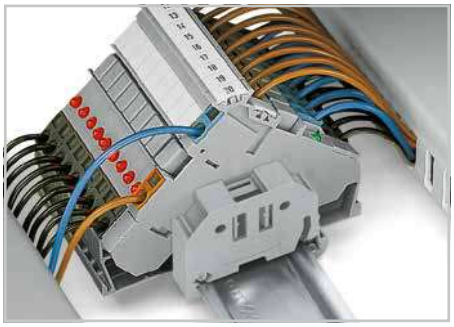


Actuator terminal blocks with fuse holders (281-511) – intermediate plates are also required!



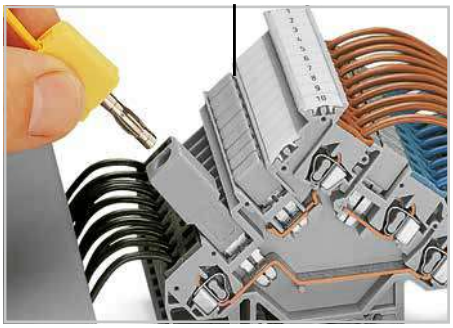
Actuator terminal blocks with component plugs (280-801)

Power supply

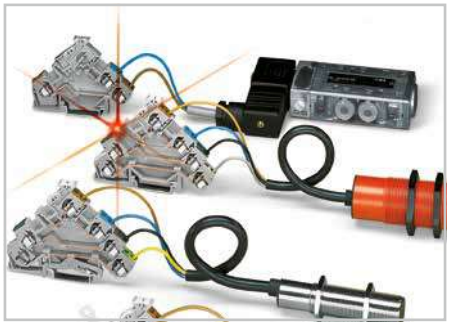


Sensor terminal blocks – power supply from control panel side

Testing

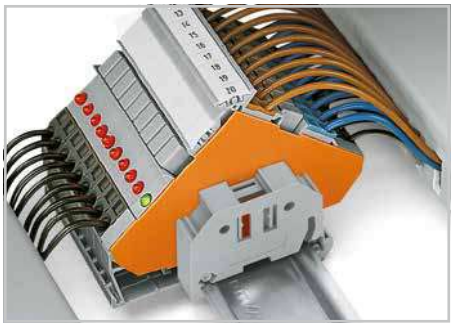


Testing via banana plug and 209-170 test plug adapter.



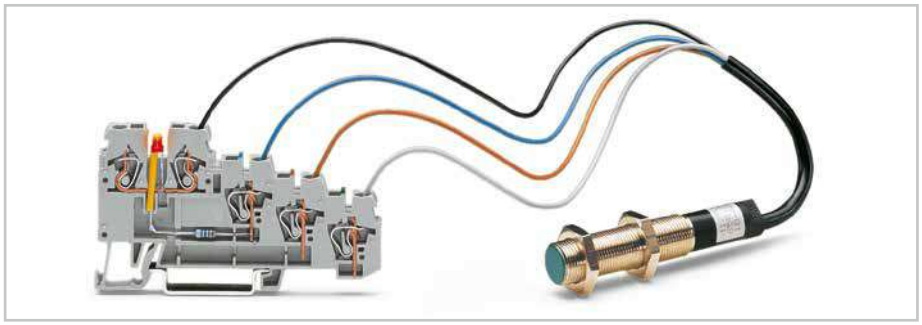
Clear assignment: one sensor – one terminal block

Power supply



Sensor terminal blocks – power supply from sensor side.

270 Series, see Full Line Catalog

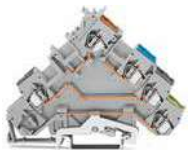


Sensor LED terminal block

For information on Push-in CAGE CLAMP® connection, see page 14.

CAGE CLAMP®

Classic Sensor and Actuator Terminal Blocks
280 Series

	+ Supply	- Supply	Signal	Ground/Shield	LED	PNP/NPN	Recovery Diode	Supply Terminal Block	End Plate	Color	Item No.	Pack. Unit
	X	X	1						a		280-560	50
	X	X	1		X	p			a		280-560/281-434	50
	X	X	1		X	n			a		280-560/281-413	50
	X	X						X	a		280-564	10
	X	X			X	p		X	a		280-564/281-483	10
	X	X			X	n		X	a		280-564/281-496	10
	X	X	1	X					b		280-570	50
	X	X	1	X	X	p			b		280-570/281-434	50
	X	X	1	X	X	n			b		280-570/281-413	50
	X	X		X				X	b		280-574	10
	X	X		X	X	p		X	b		280-574/281-483	10
	X	X		X	X	n		X	b		280-574/281-496	10
	X	X	2						b		280-580	50
	X	X	2		X	p			b		280-580/281-434	50
	X	X	2		X	n			b		280-580/281-413	50
	X	X						X	b		280-584	10
	X	X			X	p		X	b		280-584/281-483	10
	X	X			X	n		X	b		280-584/281-496	10
		X	1						a		280-562	50
		X	1				X		a		280-562/281-411	50
		X			X	p			a		280-562/281-434	50
		X	1		X	p	X		a		280-562/281-420	50
		X						X	a		280-592	10
		X	1	X					b		280-572	50
		X	1	X			X		b		280-572/281-411	50
		X	1	X	X	p			b		280-572/281-434	50
		X	1	X	X	p	X		b		280-572/281-420	50
		X						X	b		280-593	10
	X		1						a		280-555	50
	X							X	a		280-556	20
	X		1	X					b		280-585	50
	X			X				X	b		280-586	50

Accessories

	Description	Color	Item No.	Pack. Unit
	**End and intermediate plate,** 1 mm thick			
	a		280-321	100
			280-319	100
	b		280-323	100
			280-320	100
	**Adjacent jumper,** insulated $I_N = I_N$ terminal block		280-402	200
	**Insulation stop,** 5 pcs/strip 0.08 ... 0.2 mm² "sol."		280-470	200
	0.25 ... 0.5 mm²		280-471	200
	0.75 ... 1 mm²		280-472	200

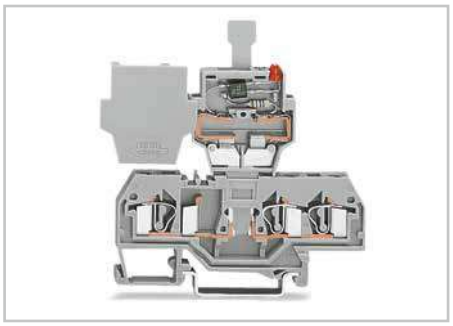
Classic Fuse Terminal Blocks and Fuse Plugs – Description and Installation –

Fuse terminal blocks



Blown fuse indication by LED or neon lamp

Fuse plug



Fuse plug with blown fuse indication on a 3-conductor carrier terminal block.

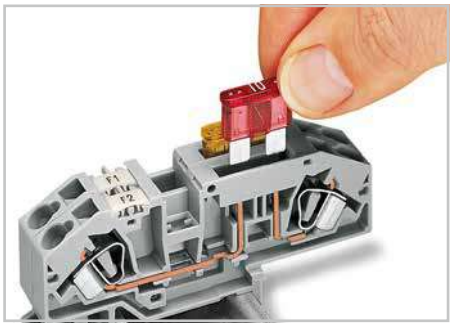


Conductor termination:
Open the clamping unit via integrated lever.

Commoning



Distributing current to several fuse-protected circuits via insulated touch-proof jumpers.



Inserting a fuse.

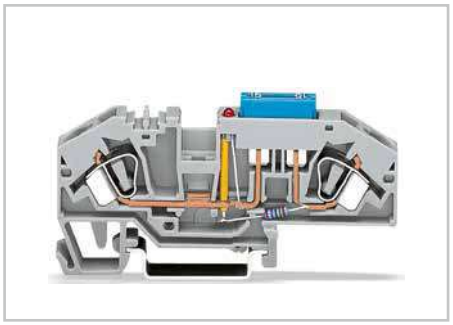


Open and close lever via screwdriver.

Fuse replacement 1



Before replacing the fuse, pivot the fuse holder into the locked open position.

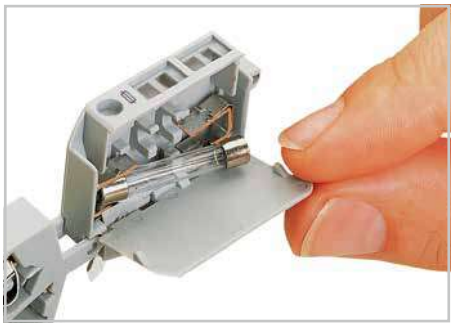


2-conductor fuse terminal block with mini-automotive blade-style fuse



Jumper bar for quick and convenient commoning

Fuse replacement 2



One end of the fuse is automatically ejected from the holder when opening the cover.



Blown fuse indication by LED



Inserting a fuse.

For information on Push-in CAGE CLAMP® connection, see page 14.

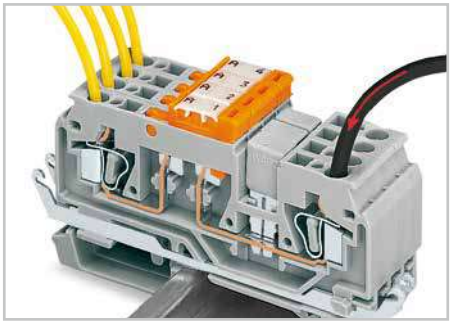
CAGE CLAMP®

Classic Fuse Terminal Blocks and Fuse Plugs

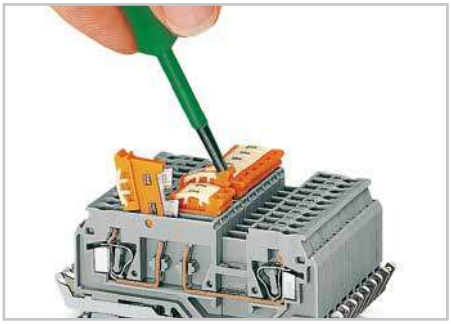
281 / 282 / 811 Series

	Description	Miniature Fuse	Blown Fuse Indication	Nominal Current	Nominal Voltage	Color	Item No.	Pack. Unit
	Fuse disconnect terminal block with pivoting fuse holder; without blown fuse indication 800 V / 10 A (6.3 A) 0.08 … **4 mm²** / 28 … 12 AWG	5 x 20 mm					**281-611**	50
		5 x 20 mm					**281-616**	50
		5 x 25 mm					**281-612**	50
		5 x 30 mm					**281-622**	50
		1/4" x 1"					**281-613**	50
		1/4" x 1 1/4"					**281-623**	50
	Fuse disconnect terminal block with pivoting fuse holder; with blown fuse indication by LED 800 V / 10 A (6.3 A) 0.08 … **4 mm²** / 28 … 12 AWG	5 x 20 mm	15 … 30 V				**281-611/281-541**	50
		5 x 20 mm	30 … 65 V				**281-611/281-542**	50
		5 x 25 mm	15 … 30 V				**281-612/281-541**	50
		5 x 25 mm	30 … 65 V				**281-612/281-542**	50
		5 x 30 mm	15 … 30 V				**281-622/281-541**	50
		5 x 30 mm	30 … 65 V				**281-622/281-542**	50
		1/4" x 1"	15 … 30 V				**281-613/281-541**	50
		1/4" x 1"	30 … 65 V				**281-613/281-542**	50
		1/4" x 1 1/4"	15 … 30 V				**281-623/281-541**	50
		1/4" x 1 1/4"	30 … 65 V				**281-623/281-542**	50
	Fuse disconnect terminal block with pivoting fuse holder; with blown fuse indication by neon lamp 800 V / 10 A (6.3 A) 0.08 … **4 mm²** / 28 … 12 AWG	5 x 20 mm	230 V				**281-611/281-417**	50
		5 x 20 mm	120 V				**281-611/281-418**	50
		5 x 25 mm	230 V				**281-612/281-417**	50
		5 x 25 mm	120 V				**281-612/281-418**	50
		5 x 30 mm	230 V				**281-622/281-417**	50
		5 x 30 mm	120 V				**281-622/281-418**	50
		1/4" x 1"	230 V				**281-613/281-417**	50
		1/4" x 1"	120 V				**281-613/281-418**	50
		1/4" x 1 1/4"	230 V				**281-623/281-417**	50
		1/4" x 1 1/4"	120 V				**281-623/281-418**	50
	Adjacent jumper, insulated, $I_N = I_N$ terminal block						**281-402**	200
	End and intermediate plate, 2.5 mm thick						**281-309**	100
							281-311	100
	Fuse plugs on carrier terminal blocks (281 Series Carrier Terminal Blocks see page 73)	for 5 x 20 mm and 5 x 25 mm miniature metric fuses		6.3 A	250 V		**281-511**	50
			LED, 48 VDC				**281-512/281-414**	50
			LED, 24 V AC/DC				**281-512/281-501**	50
			Neon lamp, 120 V AC/DC				**281-512/281-418**	50
			Neon lamp, 230 V AC/DC				**281-512/281-417**	50
	Fuse terminal blocks for mini-automotive, blade-style fuses 0.2 … **6 mm²** / 24 … 10 AWG		12 V, LED, circuit I	25 A	400 V		**282-698/281-429**	25
			12 V, LED, circuit II				**282-698/281-449**	25
			24 V, LED, circuit I				**282-698/281-413**	25
			24 V, LED, circuit II				**282-698/281-434**	25
			Without blown fuse indication				**282-696**	25
	Adjacent jumper, insulated, I_N 41 A						**282-402**	100
	3-conductor through terminal block			41 A	800 V		**282-699**	25
							282-694	25
	End and intermediate plate, 2 mm thick						**282-333**	100
							282-334	100
	Fuse terminal block for cylindrical fuses	10 x 38 mm	Without blown fuse indication, 1-pole	32 A	1000 VDC		**811-316**	12
			Blown fuse indication, 1-pole				**811-317**	12
	Fuse terminal block for cylindrical fuses 2.5 … **16 mm²** / 16 … 6 AWG		Without blown fuse indication, 1-pole	32 A	690 VAC 1000 VDC		**811-310**	12
			Without blown fuse indication, 2-pole				**811-320**	6
			Without blown fuse indication, 3-pole				**811-330**	4
			Blown fuse indication, 1-pole				**811-311**	12
			Blown fuse indication, 2-pole				**811-321**	6
			Blown fuse indication, 3-pole				**811-331**	4
			Blown fuse indication, 24 V, 1-pole				**811-314**	12
	Fuse terminal block for class CC fuses 2.5 … **16 mm²** / 16 … 6 AWG		Without blown fuse indication, 1-pole				**811-410**	12
			Without blown fuse indication, 2-pole				**811-420**	6
			Without blown fuse indication, 3-pole				**811-430**	4
			Blown fuse indication, 1-pole				**811-411**	12
			Blown fuse indication, 2-pole				**811-421**	6
			Blown fuse indication, 3-pole				**811-431**	4
			Blown fuse indication, 24 V, 1-pole				**811-414**	12
	Push-in type jumper bar, I_N 63 A, 1000 V	2-way ⋮ 12-way					**811-472** ⋮ **811-482**	50 ⋮ 20

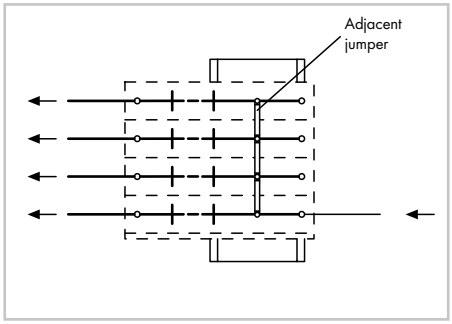
Classic Test/Disconnect Terminal Blocks with Pivoting Knife Disconnect – Description and Installation –



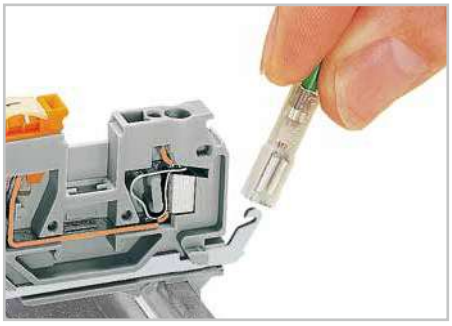
Power distribution using adjacent jumper – knife disconnects used to disconnect individual outputs



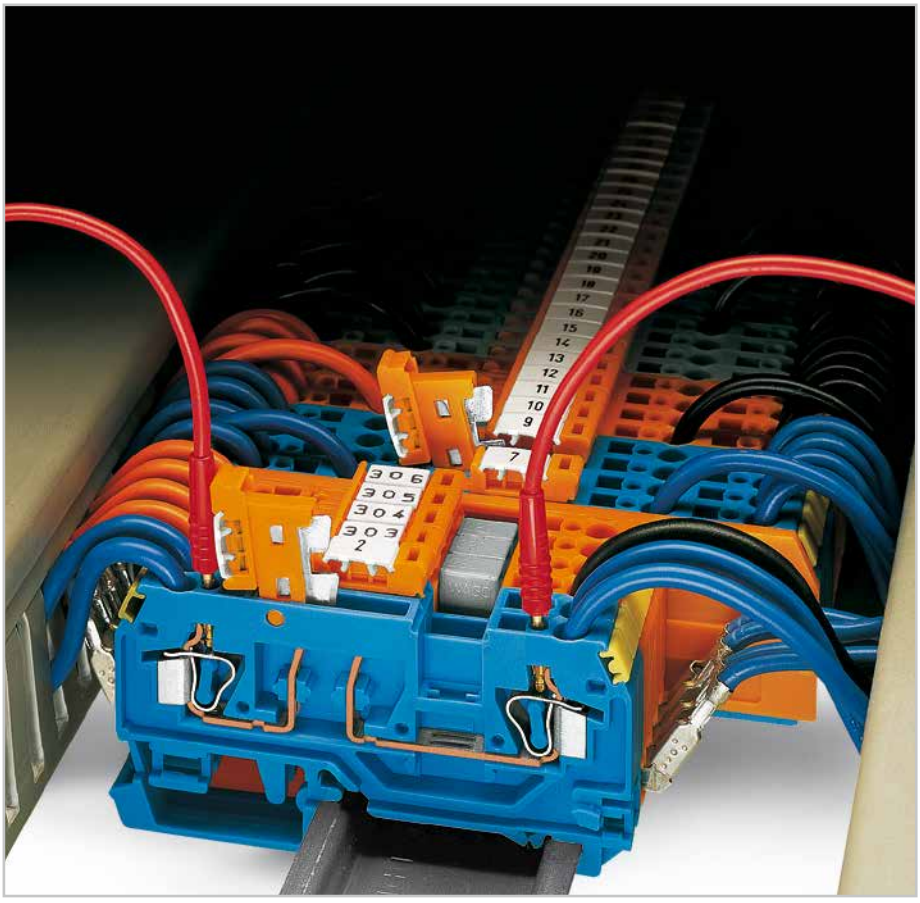
Pivoting knife disconnect

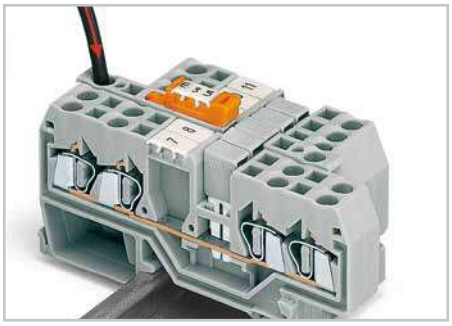


Circuit of assembly shown above

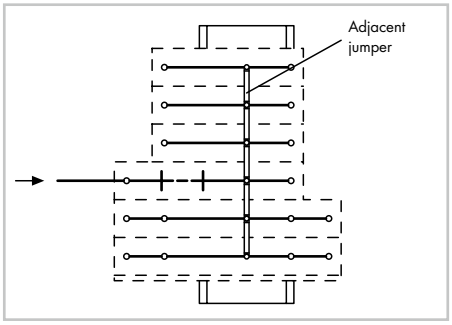


Shield contact via (2.5 x 0.8) mm solder/crimp quick disconnect terminal

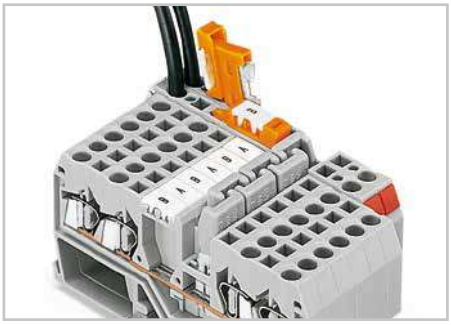




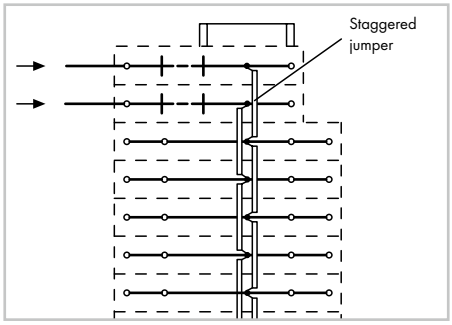
Power distribution using knife disconnect in supply line – disconnection of all outputs



Circuit of assembly shown above



Staggered jumpers for sophisticated circuit requirements – push jumpers down firmly until fully inserted.



Circuit of assembly shown opposite

For information on Push-in CAGE CLAMP® connection, see page 14.

CAGE CLAMP®

Classic Disconnect/Test Terminal Blocks
280 / 282 Series

	Description	Technical Data		Terminal Block Width	Color	Item No.	Pack. Unit
	**2-conductor disconnect/test terminal block** with test slot for 2 mm and 2.3 mm Ø test plugs	0.08 … **2.5 mm²** / 28 … 12 AWG I_N 16 A, 400 V		5 mm / 0.197 in.		**280-870**	100
						280-868	100
						280-876 Ex	100
						280-879	100
	**2-conductor disconnect/test terminal block with shield contact** and test slot for 2 mm and 2.3 mm Ø test plugs	0.08 … **2.5 mm²** / 28 … 12 AWG I_N 16 A, 250 V		5 mm / 0.197 in.		**280-871**	50
						280-869	50
						280-880	50
	End and intermediate plate, 2.5 mm thick					**280-371**	100
						280-374	100
	**4-conductor disconnect/test terminal block** with test slot for 2 mm and 2.3 mm Ø test plugs	0.08 … **2.5 mm²** / 28 … 12 AWG I_N 16 A, 400 V		5 mm / 0.197 in.		**280-874**	50
						280-881	50
						280-885 Ex	50
						280-883	50
	**4-conductor disconnect/test terminal block with shield contact** and test slot for 2 mm and 2.3 mm Ø test plugs	0.08 … **2.5 mm²** / 28 … 12 AWG I_N 16 A, 250 V		5 mm / 0.197 in.		**280-875**	50
						280-882	50
						280-884	50
	End and intermediate plate, 2.5 mm thick					**280-373**	100
						280-376	100
	**2-conductor disconnect terminal block,** with test point	0.2 … **6 mm²** / 24 … 10 AWG I_N 30 A, 400 V		8 mm / 0.315 in.		**282-697**	25
						282-695	25
	**Ground conductor disconnect terminal block** with test point (circuit diagrams, see page 49)	0.2 … **6 mm²** / 24 … 10 AWG	24 V	16 mm / 0.63 in.		**282-640**	12
			48 V			**282-641**	12
			120 V			**282-638**	12
			230 V			**282-639**	12
	**3-conductor through terminal block** with test point, same profile as disconnect terminal blocks	0.2 … **6 mm²** / 24 … 10 AWG I_N 41 A, 800 V		8 mm / 0.315 in.		**282-699**	25
						282-694	25
	End and intermediate plate, 2 mm thick					**282-333**	100
						282-334	100

For suitable jumpers, see page 72.

Classic Disconnect/Test Terminal Blocks for Current and Voltage Transformer Circuits – Description and Installation –

Shorting path preparation for current transformer circuits

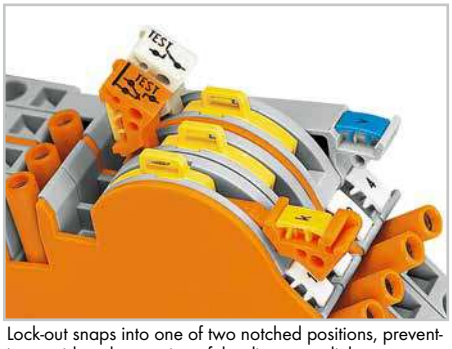


Inserting insulated, touch-proof adjacent jumpers into the protected shorting position.

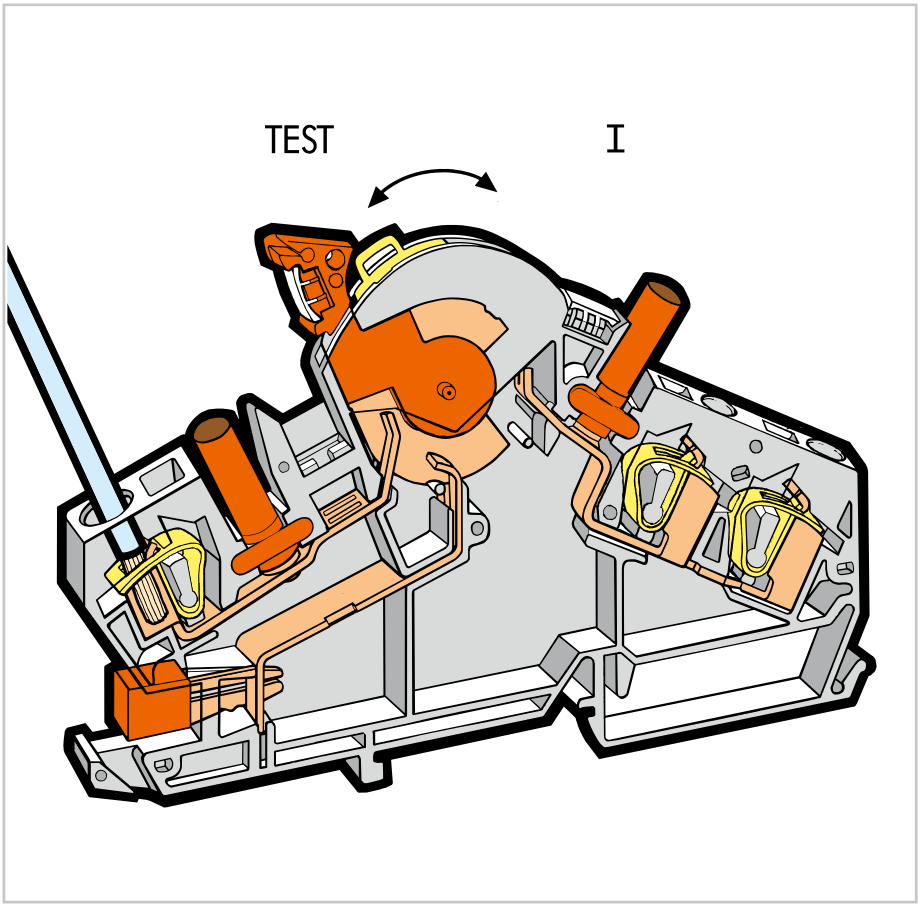


Terminal strip permanently prepared for current transformer circuits

Lock-out



Lock-out snaps into one of two notched positions, preventing accidental operation of the disconnect link.

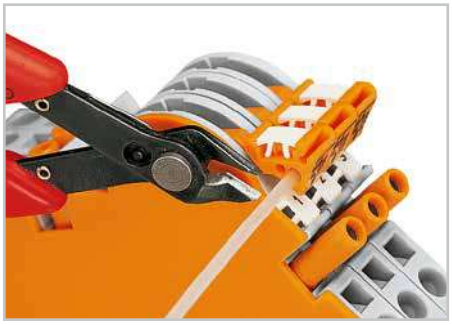


Locking cover for disconnect links



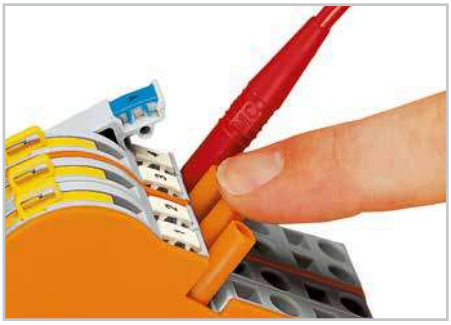
Snapping transparent locking cover onto 1 – 8 disconnect links:
a) Mechanically lock several links for multi-pole switching applications
b) Protect markers

Interlocking link



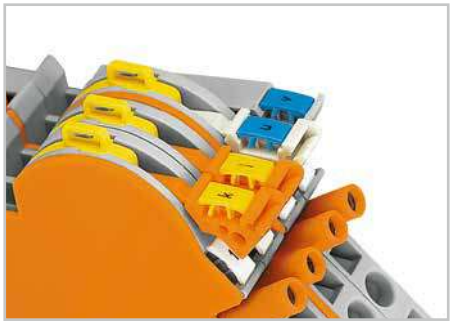
Interlocking link mechanically locks multiple links for multi-pole switching applications.

Touch-proof test sockets



Touch-proof 4 mm Ø test plugs are not available from WAGO, but are offered by industry suppliers such as, Fabrikat Multi-Contact.

Marking



Marking with WMB Multi marking system – for other systems, see Section 11.

For information on Push-in CAGE CLAMP® connection, see page 14.

Classic Disconnect/Test Terminal Blocks 6 (10) mm² and Through Terminal Blocks for Current and Voltage Transformer Circuits

CAGE CLAMP®

282 Series

	Description	Technical Data	Terminal Block Width	Color	Item No.	Pack. Unit
	**2-conductor longitudinal switching disconnect/ test terminal block** with touch-proof test sockets, for 4 mm Ø test plugs	0.2 … **6 mm²** / 24 … 10 AWG I_N 30 A, 500 V	8 mm / 0.315 in.	gray	**282-821***	20
	**2-conductor through terminal block** with touch-proof test sockets for 4 mm Ø test plugs	0.2 … **6 mm²** / 24 … 10 AWG I_N 30 A, 500 V	8 mm / 0.315 in.	gray	**282-841***	20
	2-conductor through terminal block without test sockets			gray	**282-841/ 049-000***	20
	**End and separator plate,** 1.5 mm thick			orange	**282-365**	50
				gray	**282-360**	50
	**2-conductor transverse switching disconnect/ test terminal block** with touch-proof test socket for 4 mm Ø test plug	0.2 … **6 mm²** / 24 … 10 AWG I_N 30 A, 500 V	8 mm / 0.315 in.	gray	**282-811***	20
	**End and separator plate,** 1.5 mm thick			orange	**282-366**	50
				gray	**282-361**	
	**Circuit jumper** for transverse switching terminal block (282-811), insulated, I_N 30 A	2-way ⋮ 6-way		orange	**282-442** ⋮ **282-446**	50
	**Jumper** for 282 Series, insulated, I_N 30 A	2-way ⋮ 10-way		orange	**282-432** ⋮ **282-440**	50
	**Lock-out device** for disconnect link			yellow	**282-370**	100
	**Coupling device,** mechanically locks multiple links	2-way ⋮ 4-way		yellow	**282-372** ⋮ **282-374**	50

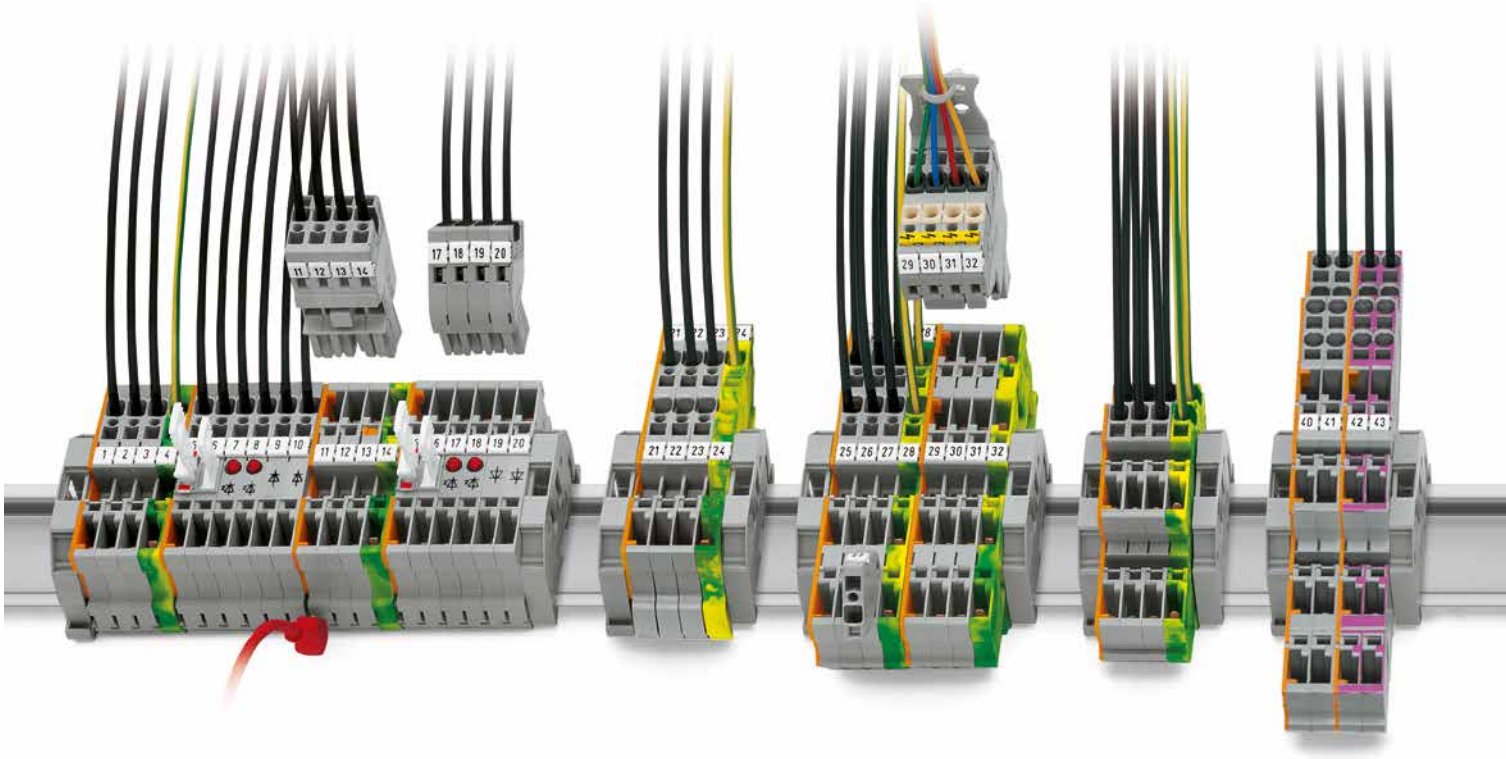
*Installation instructions for 282-811/-821, see page 54.

	**Disconnect/test terminal block,** e.g., current transformer circuits, with touch-proof test sockets	0.2 … **6 mm²** / 24 … 10 I_N 30 A, 500 V	8 mm / 0.315 in.	gray	**282-870**	20
	**Through terminal block,** e.g., current transformer circuits, with touch-proof test socket	0.2 … **6 mm²** / 24 … 10 I_N 30 A, 500 V	8 mm / 0.315 in.	gray	**282-865**	20
	**End and separator plate,** 1.5 mm thick, with lock-out seal option for disconnect terminal blocks			orange	**282-387**	50
				gray	**282-392**	50
	**Disconnect/test terminal block,** e.g., voltage circuits, with touch-proof test sockets	0.2 … **6 mm²** / 24 … 10 I_N 30 A, 500 V	8 mm / 0.315 in.	gray	**282-860**	20
	**Through terminal block,** e.g., voltage transformer circuits, with touch-proof test socket	0.2 … **6 mm²** / 24 … 10 I_N 30 A, 500 V	8 mm / 0.315 in.	gray	**282-866**	20
	**End and separator plate,** 1.5 mm thick, for through terminal blocks			orange	**282-385**	50
				gray	**282-390**	50
	**Locking cover,** transparent, mechanically locks multiple links	1-pole ⋮ 8-pole		white	**282-881** ⋮ **282-888**	50
	**Adjacent jumper** for disconnect/test terminal block (282-870), insulated, I_N 41 A			orange	**282-424**	100
	**Lock-out device** for disconnect link			yellow	**282-384**	100

X-COM®-SYSTEM
769 and 870 Series

Technical data – carrier terminal blocks:	0.08 … 4 mm²	28 … 12 AWG
	500 V/6 kV/3	300 V, 10 A
	250 V/4 kV/3	300 V, 20 A
	I_N 16 A / 32 A*	
	Terminal block width: 5 mm / 0.197 in.	
	8 … 9 mm / 0.33 in.	
	❶ Approvals	

Female plug, with coding fingers	1-conductor, straight	1-conductor, angled	2-conductor, straight
1-pole	769-101	769-101/022-000	769-121
2-pole	769-102	769-102/022-000	769-122
:	:	:	:
15-pole	769-115	769-115/022-000	769-135
1-pole	769-101/000-016	769-101/022-016	769-121/000-016



	Single-deck, through and function terminal blocks					Double-deck terminal blocks			
						1-cond./	2-pin/	2-cond./	4-cond./
	1-cond./1-pin	2-pin	2-cond./1-pin	2-cond./2-pin	4-pin	1-pin	2-pin	2-pin	4-pin
Carrier terminal block	769-176*	769-156*	769-251*	769-171*	769-151*	870-101	870-151	870-131	
Carrier terminal block, internally commoned							4-pin 870-158	870-108	870-138
Carrier terminal block with shield contact	769-231*	769-221*		769-211*	769-201*		4-pin		
Ground carrier terminal block	769-237	769-227	769-257	769-217	769-207		870-157	870-107	
Disconnect carrier terminal block	769-232	769-222							
Disconnect carrier terminal block with shield contact	769-233	769-223							
Diode carrier terminal block									
Anode, left side	769-238/281-410	769-228/281-410							
Anode, right side	769-238/281-411	769-228/281-411							
LED carrier terminal block									
Anode, right side	769-239/281-413	769-229/281-413							
Anode, left side	769-239/281-434	769-229/281-434							
End plate	769-307	769-305	769-320	769-301		870-118	870-168	870-148	
	769-308	769-306	769-321	769-302		870-119	870-169	870-149	
Separator, oversized									
Jumper	280-4xx	280-4xx	280-4xx	280-4xx	280-4xx	870-4xx	870-4xx	870-4xx	

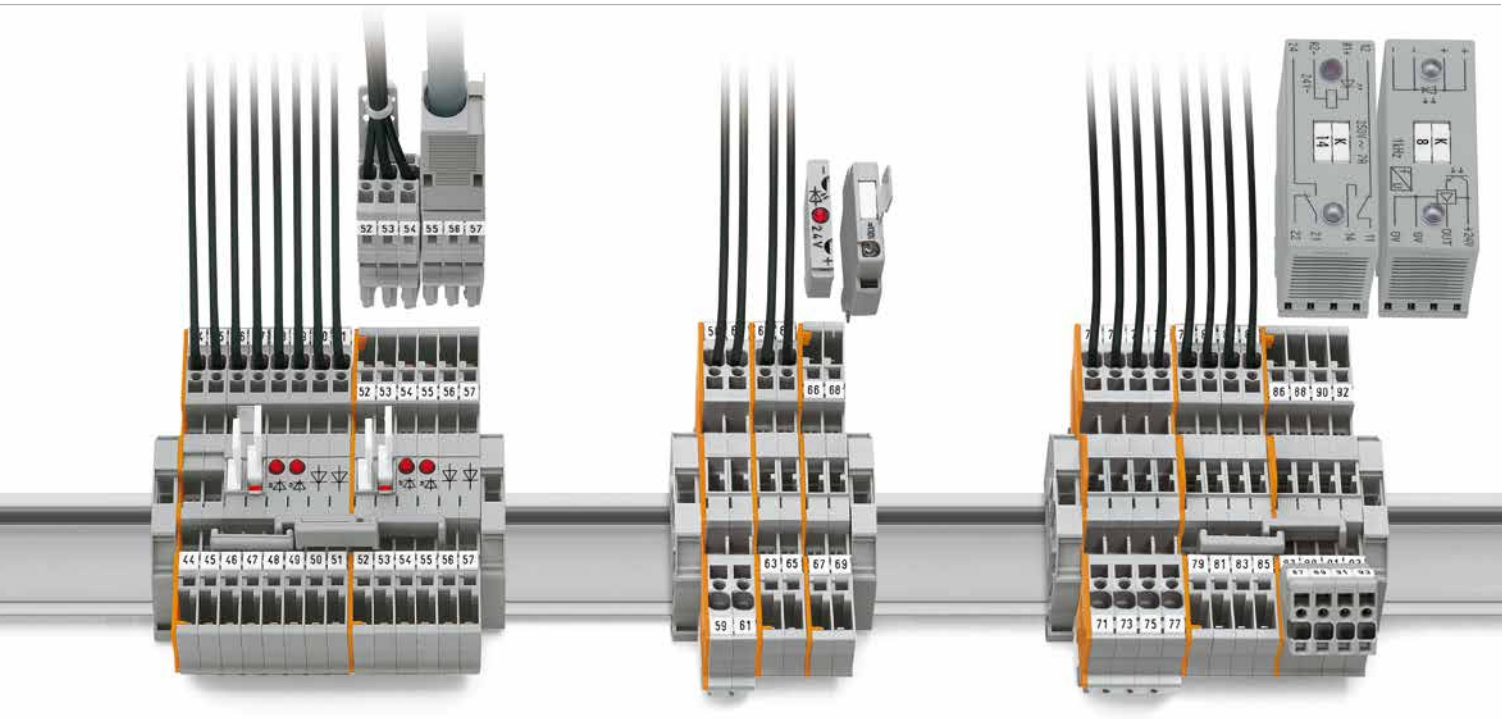
❶ For all approvals and corresponding ratings, visit www.wago.com. For technical explanations and abbreviations, see technical section.

CAGE CLAMP®

1

Technical data – carrier terminal blocks:		
	0.08 … 4 mm²	28 … 12 AWG
	500 V/6 kV/3	300 V, 10 A
	250 V/4 kV/3	300 V, 20 A
	I_N 16 A / 32 A*	
	Terminal block width: 5 mm / 0.197 in.	
	8 … 9 mm / 0.33 in.	
	❶ Approvals	

Strain relief plate, gray		Strain relief housing, gray	
1-pole	769-410		–
2- to 3-pole	769-411	2-pole	769-1602
4- to 5-pole	769-412	3-pole	769-1603
6- to 9-pole	769-413	:	:
10- to 15-pole	769-414	15-pole	769-1615

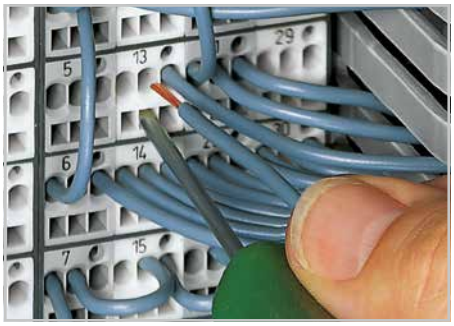


Terminal blocks with multiple jumper positions			Carrier terminal block for 280/281 Series pluggable modules (fuse, LED, ...)			Carrier terminal blocks for 286 Series pluggable modules with integrated end plate (relays, optocouplers, ...)	
3-way 1-cond./1-pin	2-way 1-cond./1-pin	2-way 2-pin	1-cond./1-cond.	1-cond./1-pin	2-pin		
769-214*			769-191	769-181	769-161		
						1-cond./1-pin	
						4-pole	769-182/769-314
						6-pole	769-183/769-314
						8-pole	769-184/769-314
	769-212	769-202				10-pole	769-185/769-314
						1-cond./1-cond.	
	769-213	769-203				4-pole	769-192/769-319
						6-pole	769-193/769-319
	769-218/281-410	769-208/281-410				8-pole	769-194/769-319
	769-218/281-411	769-208/281-411				10-pole	769-195/769-319
	769-219/281-413	769-209/281-413				2-pin	
	769-219/281-434	769-209/281-434				4-pole	769-162/769-313
						6-pole	769-163/769-313
			1-cond./1-cond.	1-cond./1-pin	2-pin	8-pole	769-164/769-313
769-315	769-311	769-309	769-317	769-311	769-309	10-pole	769-165/769-313
769-316	769-312	769-310	769-318	769-312	769-310		
	769-314	769-313	769-319	769-314	769-313		
280-4xx	280-4xx	280-4xx	780-45x	780-45x	780-45x		780-45x

Please find the entire product range in our Full Line Catalog. For additional information, visit www.wago.com.

Matrix Patchboards
– Description and Installation –

CAGE CLAMP® connection



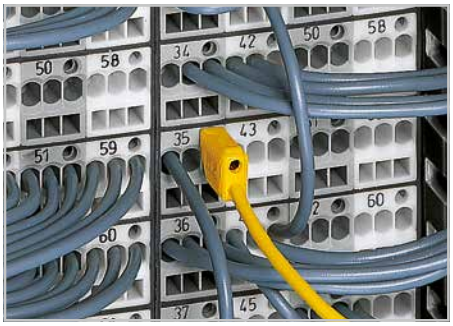
Conductor termination via operating tool (2.5 x 0.4 mm blade)

Module marking



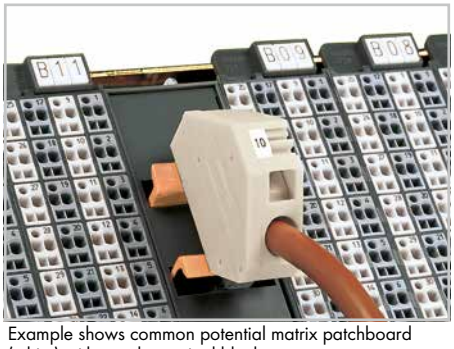
Factory-marked modules
Side 1: 1, 2, 3, 4 . . .

Testing



Testing via 2.3 mm Ø test plug.

Common potential matrix patchboard



Example shows common potential matrix patchboard (white) with supply terminal block.

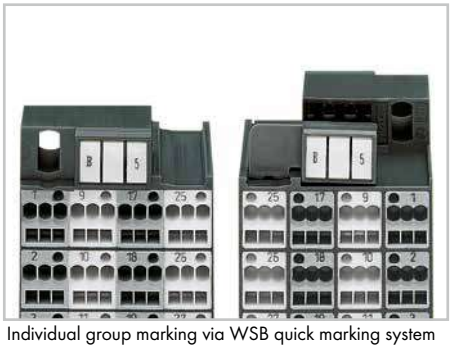


Marking



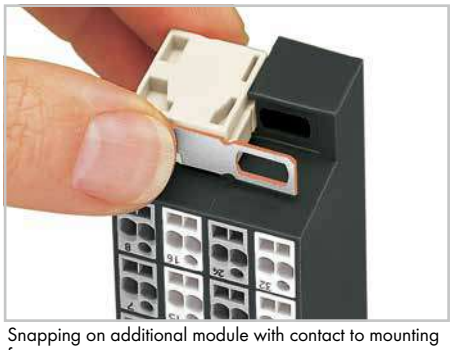
WFB continuous marking strip – fits into the matrix patchboards' marker slot and group marker carrier.

Marking



Individual group marking via WSB quick marking system

Additional module



Snapping on additional module with contact to mounting frame.

Additional module



Assembling a matrix patchboard with additional module – direct connection to the mounting frame.

For information on Push-in CAGE CLAMP® connection, see page 14.

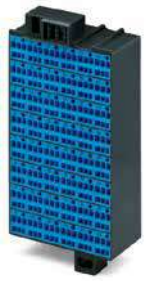
PUSH-IN CAGE CLAMP®

CAGE CLAMP®

Matrix Patchboards
726 Series

	500 V/6 kV/3 I_N 10 A 8 … 10 mm 300 V, 10 A 0.35 in.	500 V/6 kV/3 I_N 10 A 8 … 10 mm 300 V, 10 A 0.35 in.	500 V/6 kV/3 I_N 10 A 8 … 10 mm 300 V, 10 A 0.35 in.	Side 1: I_N 76 A 2 x 0.2 … 16 mm² 16 … 17 mm Side 2: I_N 24 A 2 x 0.08 … 2.5 mm² 8 … 18 mm









Description	Marking	Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit
Matrix patchboard, dark gray housing,		32-pole			48-pole			80-pole					
gray/white/blue modules, vertical module	1 … 32	● ○	**726-121**	20									
marking on sides 1 and 2		●	**726-141** ❶	20									
Side 1: **3** x 0.08 … 1.5 mm²/28 … 16 AWG	33 … 64	● ○	**726-122**	20									
Side 2: **3** x 0.08 … 1.5 mm²/28 … 16 AWG		●	**726-142** ❶	20									
	1 … 48				● ○	**726-421**	10						
					●	**726-441** ❶	10						
	1 … 80							● ○	**726-721**	8			
								●	**726-741** ❶	8			
Matrix patchboard	1 … 32	● ○	**726-221**	20									
Side 1: **3** x 0.08 … 1.5 mm²/28 … 16 AWG		●	**726-241** ❶	20									
Side 2: **2** x 0.08 … 2.5 mm²/28 … 14 AWG	33 … 64	● ○	**726-222**	20									
		●	**726-242** ❶	20									
	1 … 48				● ○	**726-521**	10						
					●	**726-541** ❶	10						
	1 … 80							● ○	**726-821**	8			
								●	**726-841** ❶	8			
Matrix patchboard, slimline version, for	1 … 32	● ○	**726-321**	24									
19" racks		●	**726-341** ❶	24									
Side 1: **2** x 0.08 … 1.5 mm²/28 … 16 AWG	33 … 64	● ○	**726-322**	24									
Side 2: **2** x 0.08 … 1.5 mm²/28 … 16 AWG		●	**726-342** ❶	24									
Common potential matrix patchboard,											24-pole		
slimline version,	1 … 24										●	**726-601**	10
for 19" racks, dark gray frame, gray/white/											○	**726-611**	10
green-yellow modules, vertical module mark-											◐	**726-621**	10
ing, with 1 or 2 supply terminal blocks for													
76 A incl. end plate											●	**726-602**	10
Side 1: **2** x 0.08 … 1.5 mm²/28 … 16 AWG											○	**726-612**	10
Side 2: **2** x 0.08 … 1.5 mm²/28 … 16 AWG											◐	**726-622**	10
Matrix patchboard, slimline version,		18-pole			32-pole			54-pole					
for 19" racks, with push-buttons and		●	**726-750**	20	●	**726-770**	20	●	**726-850**	10			
Push-in CAGE CLAMP®, without marking													
Side 1: **2** x 0.2 … 1.5 mm²/28 … 16 AWG													
Side 2: **2** x 0.2 … 1.5 mm²/28 … 16 AWG													

Accessories, 726 Series

(Marking and mounting accessories, see Full Line Catalog)

Additional module for matrix patchboards,



can be snapped to the lower mounting element, with CAGE CLAMP® connection, with contact to mounting frame

○	**726-903**	25
●	**726-904**	25

Decade marker carrier, for matrix patchboards



●	**726-905**	10

Insulation stop, 4 x 3 pcs/strip



0.08 … 0.2 mm² "s" (0.14 mm² "f-st")		
○	**726-901**	200
0.25 mm² "s" 0.14 … 0.25 mm² "f-st"		
○	**726-906**	200
0.25 … 0.5 mm² "s+f-st"		
●	**726-907**	200

Operating tool with a partially insulated shaft,



type 1, (2.5 x 0.4) mm blade		
	210-719	1

Test plug, with 500 mm cable



● 2 mm Ø	**210-136**	50
◐ 2.3 mm Ø	**210-137**	50

Step-down test plug,

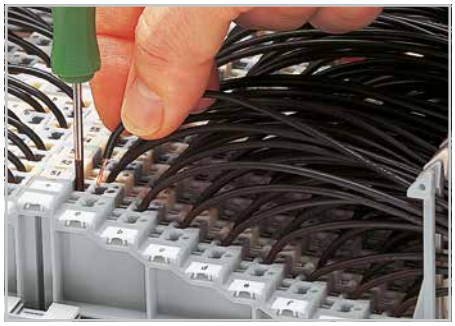


from 4 mm socket to 2 mm plug		
●	**210-297**	100 (4x25)

❶ Suitable for Ex i applications

Terminal Blocks for Matrix Patching and Common Potential Terminal Blocks – Description and Installation –

CAGE CLAMP® connection



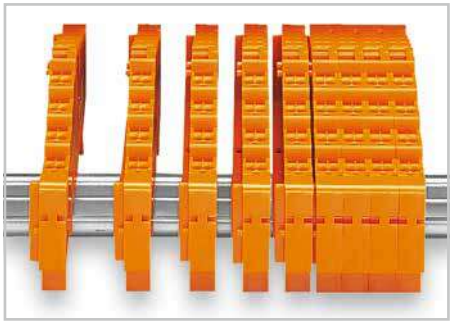
Inserting/removing conductor via operating tool (2.5 x 0.4 mm blade).

Wiring space

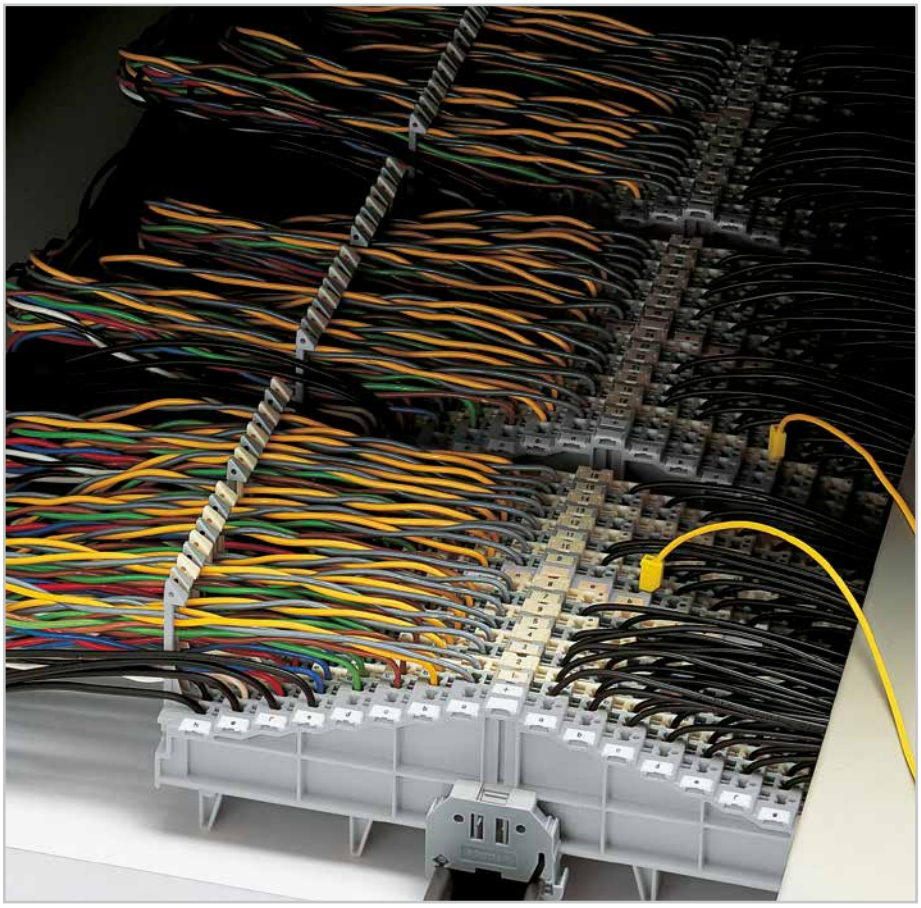


Using terminal blocks with locking clips, the wiring space between the terminal strips can be covered with a wiring duct cover.

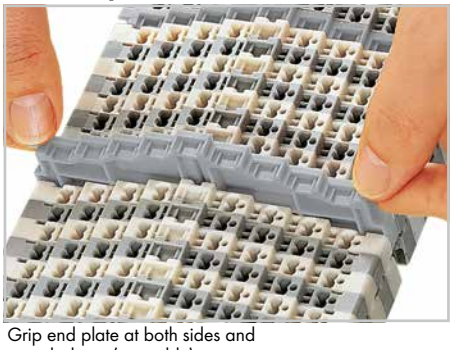
Assembly



Snap individual 4- or 8-level terminal blocks onto the carrier rail.
Slide terminal blocks together.

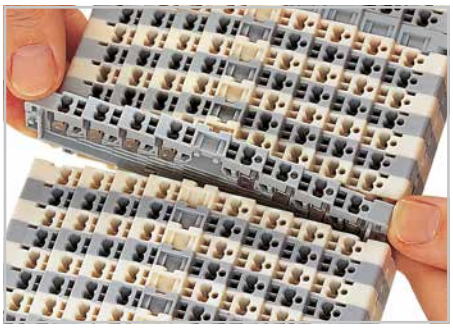


Assembly/Removal



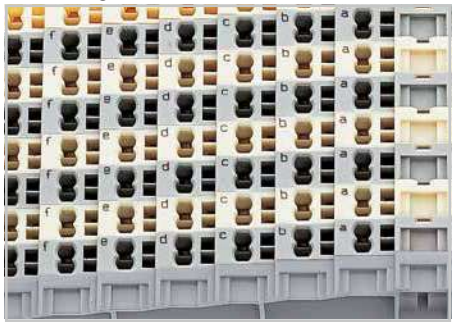
Grip end plate at both sides and
– push down (assembly)
– pull up (removal)

Removal



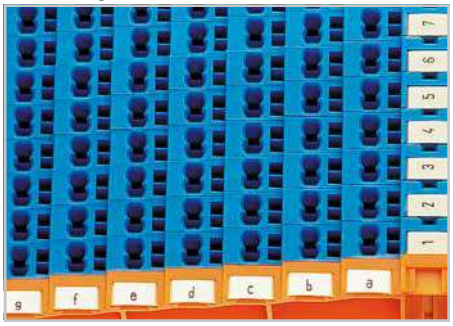
Open the assembly by laterally sliding a block via operating tool (2.5 x 0.4 mm blade). Slide terminal block and remove from the rail with a levering action.

Marking



Mark of clamping points with direct printing.

Marking



Marking coordinates via WMB Multi Marking System.

Testing



Special test contact for 2 mm or 2.3 mm Ø test plug, as well as step-down test plug with 4 mm socket

For information on Push-in CAGE CLAMP® connection, see page 14.

CAGE CLAMP®

4- and 8-Level Matrix Patching/Common Potential Terminal Blocks, 1.5 mm²

727 Series

Terminal block for matrix patching, 4 x pairs of clamping units on the same level	0.08 … 1.5 mm² / 28 … 16 AWG 250 V/4 kV/3 300 V, 10 A I_N 12 A 300 V, 10 A Terminal block width: 7.62 mm / 0.3 in. 8 … 10 mm / 0.35 in. ❶ Approvals	0.08 … 1.5 mm² / 28 … 16 AWG 250 V/4 kV/3 300 V, 10 A I_N 12 A 300 V, 10 A Terminal block width: 7.62 mm / 0.3 in. 8 … 10 mm / 0.35 in. ❶ Approvals
Common potential terminal block, all clamping units are connected to the same current bar		



4-level terminal block for matrix patching



8-level common potential terminal block

Description / Marking	Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit
Matrix patching/common potential terminal block	4 levels			8 levels			4 levels			8 levels		
without locking clips,		**727-220**	50		**727-120**	25		**727-226**	50		**727-126**	25
for DIN 35 x **7.5** rail per EN 60715		**727-222**	50		**727-122**	25		**727-228**	50		**727-128**	25
		727-224 ❷	50		**727-124** ❷	25						
Matrix patching/common potential terminal block												
without locking clips,		**727-230**	50		**727-130**	25		**727-236**	50		**727-136**	25
for DIN 35 x **15** rail per EN 60715		**727-232**	50		**727-132**	25		**727-238**	50		**727-138**	25
		727-234 ❷	50		**727-134** ❷	25						
Matrix patching/common potential terminal block												
with locking clips,		**727-219**	50		**727-119**	25		**727-225**	50		**727-125**	25
for DIN 35 x **7.5** rail per EN 60715		**727-221**	50		**727-121**	25		**727-227**	50		**727-127**	25
		727-223 ❷	50		**727-123** ❷	25						
Matrix patching/common potential terminal block												
with locking clips,		**727-229**	50		**727-129**	25		**727-235**	50		**727-135**	25
for DIN 35 x **15** rail per EN 60715		**727-231**	50		**727-131**	25		**727-237**	50		**727-137**	25
		727-233 ❷	50		**727-133** ❷	25						
End plate, 7.62 mm												
Without marking		**727-217**	25					**727-217**	25			
Marking: 0-1-2-3-3-2-1-0		**727-205**	25					**727-205**	25			
Marking: a-b-c-d-d-c-b-a		**727-206**	25					**727-206**	25			
End plate, 7.62 mm					**727-117**	25					**727-117**	25
Without marking					**727-105**	25					**727-105**	25
Marking: 0-1-2-3-4-5-6-7-7-6-5-4-3-2-1-0					**727-106**	25					**727-106**	25
Marking: a-b-c-d-e-f-g-h-h-g-f-e-d-c-b-a												
Item no. suffixes for terminal blocks with marking:												
0-1-2-3-3-2-1-0		**…/021-000**						**…/021-000**				
a-b-c-d-d-c-b-a		**…/022-000**						**…/022-000**				
3-2-1-0-0-1-2-3		**…/023-000**						**…/023-000**				
d-c-b-a-a-b-c-d		**…/024-000**						**…/024-000**				
0-1-2-3-4-5-6-7-7-6-5-4-3-2-1-0					**…/021-000**						**…/021-000**	
a-b-c-d-e-f-g-h-h-g-f-e-d-c-b-a					**…/022-000**						**…/022-000**	
7-6-5-4-3-2-1-0-0-1-2-3-4-5-6-7					**…/023-000**						**…/023-000**	
h-g-f-e-d-c-b-a-a-b-c-d-e-f-g-h					**…/024-000**						**…/024-000**	

Accessories, 727 Series

(Marking and mounting accessories, see Full Line Catalog)

Insulation stop, 8 pcs/strip



0.08 … 0.2 mm² "s" (0.14 mm² "f-st")
727-197 200
0.25 mm² "s" 0.14 … 0.25 mm² "f-st"
727-198 200
0.25 … 0.5 mm² "s+f-st"
727-199 200

Wire commoning chain, insulated, 31 connections,



I_N 6 A, max. 50 V, 0.5 mm²
709-107 1

Operating tool with a partially insulated shaft,



type 1, (2.5 x 0.4) mm blade
210-719 1

Test plug, with 500 mm cable



2 mm Ø **210-136** 50
2.3 mm Ø **210-137** 50

Step-down test plug,



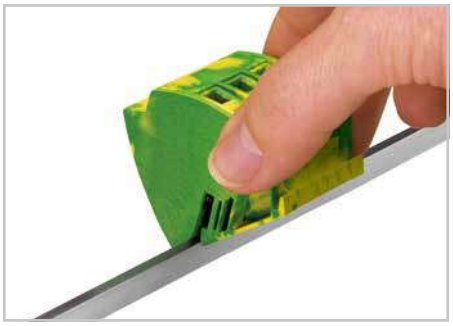
from 4 mm socket to 2 mm plug
210-297 100 (4x25)

❶ For all approvals and corresponding ratings, visit www.wago.com.

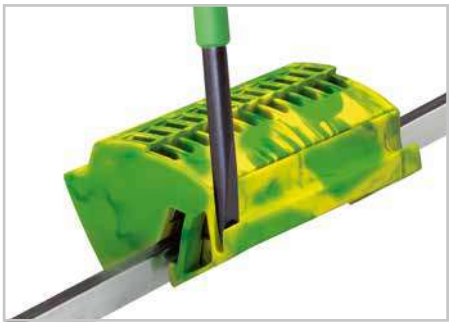
For technical explanations and abbreviations, see technical section.

❷ Suitable for Ex i applications

Busbar Terminal Blocks
– Description and Installation –



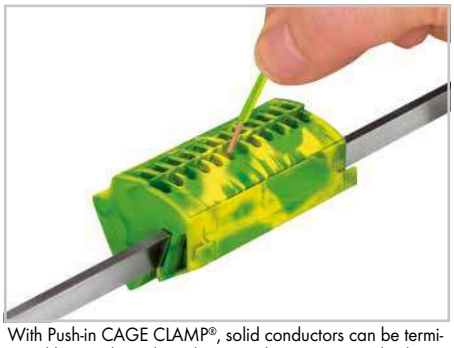
Snapping a ground busbar terminal block onto the N-busbar



Unlock right and left positions to remove the ground busbar terminal block. Then pull up the block from the busbar.

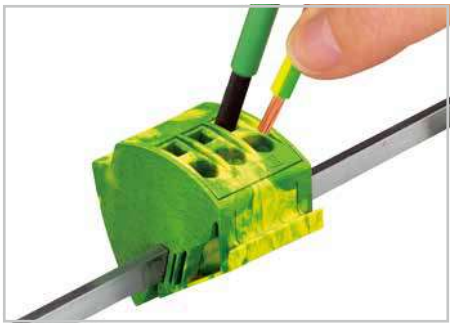
Using the 812 Series Busbar Terminal Blocks in switchgear cabinets and distribution boards permits simple and safe potential distribution on standard 10 x 3 mm busbars. Tool-free snapping of self-locking busbar terminal blocks onto the busbar enables quick and easy assembly, as well as subsequent extension. The busbar terminal blocks are available in two different versions for conductors ranging from 1.5–16 mm² (16–6 AWG).
Current carrying capacity: With a maximum total current of 96 A, the clamping units of the busbar terminal block can be loaded with the rated current of the conductor cross-sections approved. This only applies when 10 x 3 mm busbars are used.

Conductor termination (4 mm²)



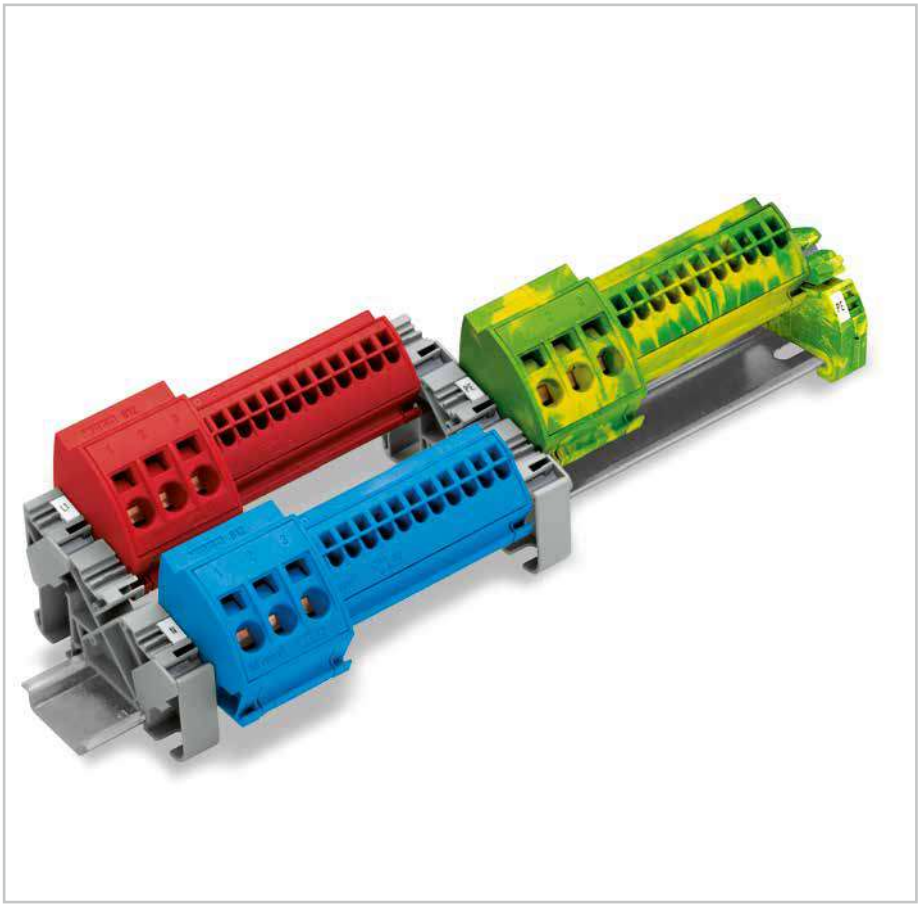
With Push-in CAGE CLAMP®, solid conductors can be terminated by simply pushing them into the 12 x 4 mm² busbar terminal block, significantly reducing wiring time.

Conductor termination (16 mm²)

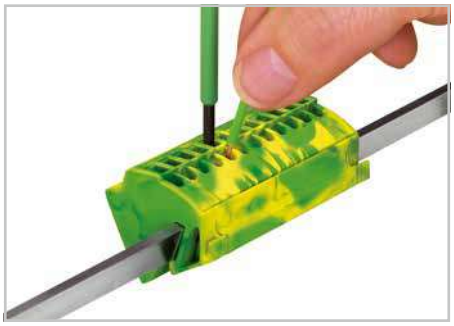


Open the clamping unit with an operating tool when terminating solid, stranded and fine-stranded conductors.

Mixed 4 mm² and 16 mm² busbar terminal blocks

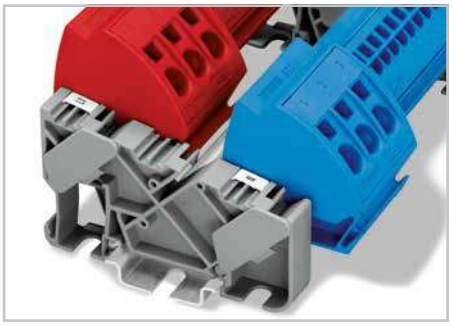


Conductor removal (4 mm² and 16 mm²)



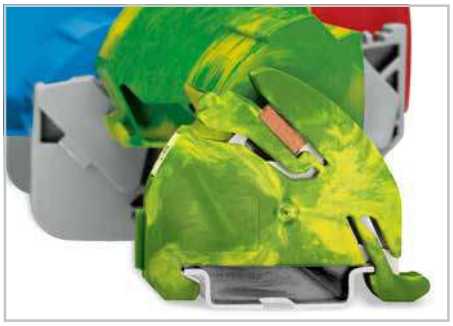
Open the clamping unit using an operating tool.

Busbar carrier



Carrier with 3 receptacles for 10 x 3 mm busbars with locking device for easy mounting of the busbars. The carriers can be snapped onto the DIN-35 rail or screwed on a panel.

Ground busbar carrier



Carrier including a receptacle with locking device for (10 x 3) mm busbar. Contact between the busbar and rail is made automatically by simply snapping the carrier onto the carrier rail. One end of the busbar is mounted onto the ground busbar carrier, the other end is inserted into the middle position of the insulated busbar carrier.

For information on Push-in CAGE CLAMP® and CAGE CLAMP® connections, see page 14.

Busbar Terminal Blocks 4 mm² and 16 mm²

812 Series

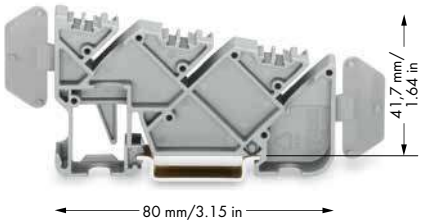
PUSH-IN CAGE CLAMP®

CAGE CLAMP®

0.5 ... 4 mm²	20 ... 12 AWG	1.5 ... 16 mm²	14 ... 6 AWG	Insulated busbar carrier
1000 V/6 kV/3	600 V, 20 A	1000 V/6 kV/3	600 V, 20 A	
I_N 96 A	600 V, 95 A	I_N 96 A	600 V, 95 A	
Terminal block width: 75 mm / 2.953 in.		Terminal block width: 38 mm / 1.496 in.		
11 mm / 0.43 in.		12 mm / 0.47 in.		
❶ Approvals		❶ Approvals		







Color	Item No.	Pack. Unit
Busbar terminal block 4 mm² with Push-in CAGE CLAMP®		
blue	**812-104**	10
light gray	**812-101**	10
dark gray	**812-102**	10
red	**812-103**	10

Color	Item No.	Pack. Unit
Busbar terminal block 16 mm² with CAGE CLAMP®		
blue	**812-114**	12
light gray	**812-111**	12
dark gray	**812-112**	12
red	**812-113**	12

Color	Item No.	Pack. Unit
Insulated busbar carrier, 12 mm wide		
gray	**812-140**	25

Item-Specific Accessories

Straight busbar, Cu with tin plating,



10 x 3 mm, 1000 mm long

I_N 140 A **210-133** 1

Item-Specific Accessories

Straight busbar, Cu with tin plating,



10 x 3 mm, 1000 mm long

I_N 140 A **210-133** 1

Finger guard,



touch-proof cover protects unused conductor entries

284-400 100 (4x25)

Item-Specific Accessories

WMB Multi marking system, plain,

10 strips with 10 markers per card, stretchable from 5 ... 5.2 mm

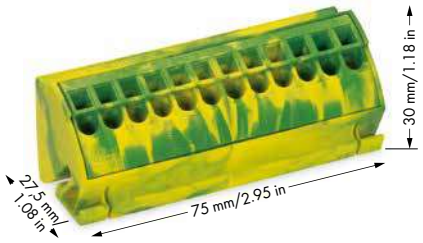
793-5501 5

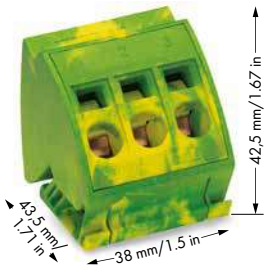
WMB Inline, plain,

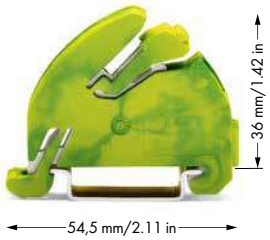


stretchable from 5 ... 5.2 mm, 1500 WMB markers (5 mm) per roll

2009-115 1







Color	Item No.	Pack. Unit
Ground busbar terminal block 4 mm² with Push-in CAGE CLAMP®		
green-yellow	**812-100**	10

Color	Item No.	Pack. Unit
Ground busbar terminal block 16 mm² with CAGE CLAMP®		
green-yellow	**812-110**	12

Color	Item No.	Pack. Unit
Ground busbar carrier with DIN-35 rail contact, 11 mm wide		
green-yellow	**812-141**	25

Item-Specific Accessories

Straight busbar, Cu with tin plating,



10 x 3 mm, 1000 mm long

I_N 140 A **210-133** 1

Item-Specific Accessories

Straight busbar, Cu with tin plating,



10 x 3 mm, 1000 mm long

I_N 140 A **210-133** 1

Finger guard,



touch-proof cover protects unused conductor entries

284-400 100 (4x25)

Accessories

Operating tool with a partially insulated shaft,



type 2, (3.5 x 0.5) mm blade

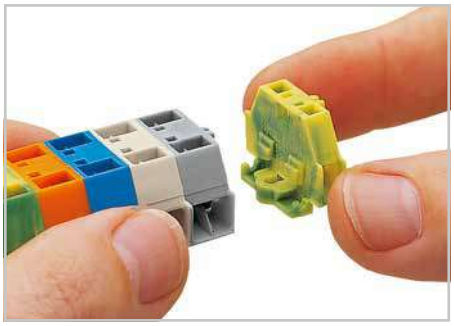
210-720 1

❶ For all approvals and corresponding ratings, visit www.wago.com.

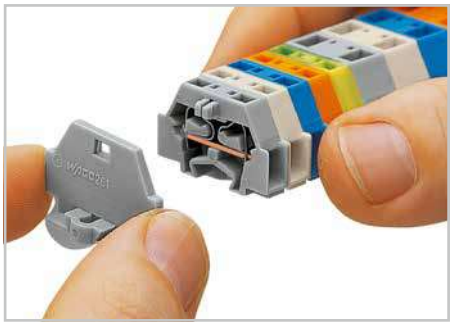
For technical explanations and abbreviations, see technical section.

Modular Terminal Blocks and Terminal Strips, Side-Entry – Description and Installation –

Assembly

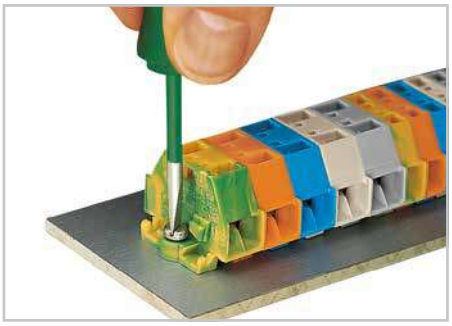


Assembling modular terminal blocks into terminal strips.



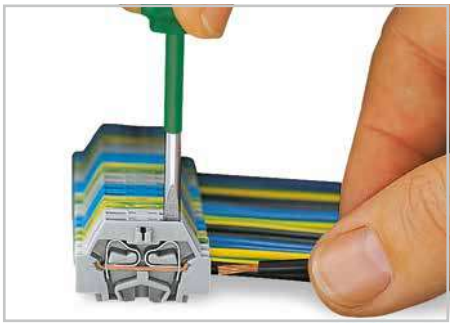
Mounting an end plate.

Mounting

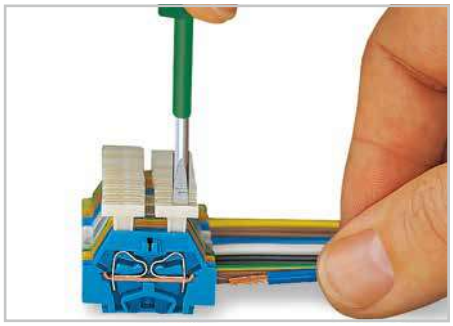


Mounting and securing a terminal strip directly to the plate via screw-type flanges.

CAGE CLAMP® connection



Inserting a conductor via operating tool.



Inserting a conductor via push-button.

Mounting



Securing a mounting foot (209-123) to the terminal strip with mounting flanges (distance between mounting feet: approx. 35 ... 40 mm).

Marking

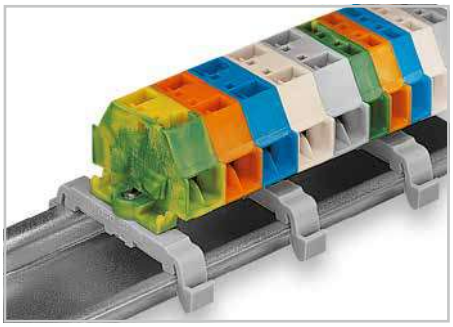


Marking with self-adhesive marking strips.



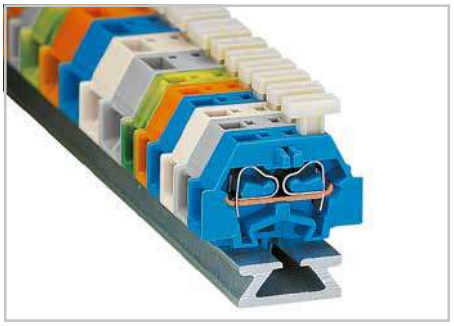
Marking by direct printing (upon request).

Mounting

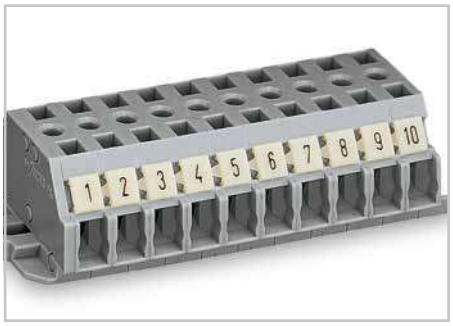


Terminal strip with mounting flanges, on DIN-35 rail

Types

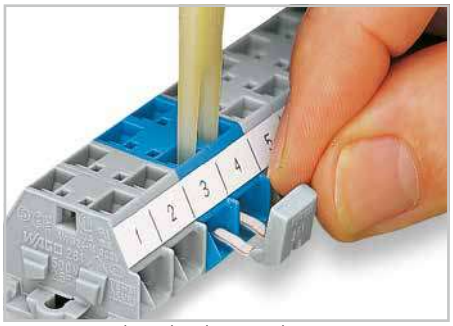


Terminal strip with push-buttons on one side.



Terminal strip with marker slot for Miniature WSB Quick Marking System (see Full Line Catalog).

Commoning



Commoning with comb-style jumper bar.

For information on Push-in CAGE CLAMP® connection, see page 14.

CAGE CLAMP®

Modular Terminal Blocks and Terminal Strips

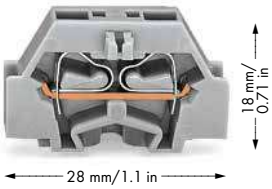
260 ... 262 Series

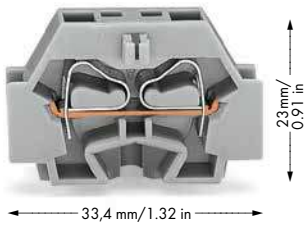
0.08 ... 1.5 mm² | **28 ... 16 AWG**
400 V/6 kV/3 | **300 V, 10 A**
I_N 18 A | **300 V, 15 A**
2-cond. terminal block width: 5 mm/0.197 in.
4-cond. terminal block width: 8 mm/0.315 in.
8 ... 9 mm / 0.33 in.
❶ Approvals

0.08 ... 2.5 mm² | **28 ... 14 AWG**
500 V/6 kV/3 | **300/600 V, 15 A**
I_N 24 A | **300/600 V, 20 A**
2-cond. terminal block width: 6 mm/0.236 in.
4-cond. terminal block width: 10 mm/0.394 in.
8 ... 9 mm / 0.33 in.
❶ Approvals

0.08 ... 4 mm² | **28 ... 12 AWG**
630 V/8 kV/3 | **300/600 V, 20 A**
I_N 24 A ❷ (32 A ❸) | **300/600 V, 20 A**
2-cond. terminal block width: 7 mm/0.276 in.
4-cond. terminal block width: 12 mm/0.472 in.
9 ... 10 mm / 0.37 in.
❶ Approvals





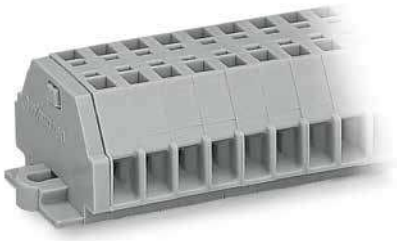


Color	Item No. 2-Cond. Block	Item No. 4-Cond. Block	Pack. Unit
gray	**260-301**	**260-331**	300 (6x50)
light gray	**260-303**	**260-333**	300 (6x50)
blue	**260-304**	**260-334**	300 (6x50)
orange	**260-306**	**260-336**	300 (6x50)
green-yellow	**260-307**	**260-337**	300 (6x50)

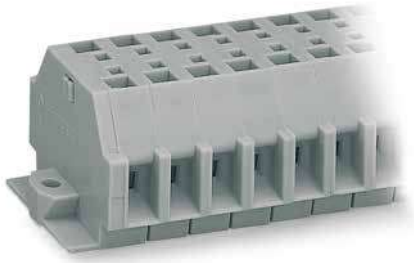
Color	Item No. 2-Cond. Block	Item No. 4-Cond. Block	Pack. Unit
gray	**261-301**	**261-331**	200 (4x50)
light gray	**261-303**	**261-333**	200 (4x50)
blue	**261-304** ❹	**261-334** ❹	200 (4x50)
orange	**261-306**	**261-336**	200 (4x50)
green-yellow	**261-307**	**261-337**	200 (4x50)

Versions with push-buttons, see bottom right

Color	Item No. 2-Cond. Block ❷	Item No. 4-Cond. Block ❸	Pack.Unit
gray	**262-301**	**262-331**	100 (2x50)
light gray Ⓔx	**262-130**	**262-230**	100 (2x50)
blue	**262-304** ❹	**262-334** ❹	100 (2x50)
orange	**262-306**	**262-336**	100 (2x50)
green-yellow	**262-307**	**262-337**	100 (2x50)







Pole No.	Item No. 2-Cond. Block	Item No. 4-Cond. Block	Pack. Unit
Terminal strip with mounting flanges, gray			
2	**260-102**	**260-202**	100
3	**260-103**	**260-203**	100
:	:	:	
12	**260-112**	**260-212**	25

Pole No.	Item No. 2-Cond. Block	Item No. 4-Cond. Block	Pack. Unit
Terminal strip with mounting flanges, gray			
2	**261-102**	**261-202**	100
3	**261-103**	**261-203**	100
:	:	:	
12	**261-112**	**261-212**	25

Pole No.	Item No. 2-Cond. Block ❷	Item No. 4-Cond. Block ❸	Pack.Unit
Terminal strip with mounting flanges, gray			
2	**262-102**	**262-202**	100
3	**262-103**	**262-203**	100
:	:	:	
12	**262-112**	**262-212**	25

Accessories, 260/261/262 Series

Appropriate marking system, see page 244

End plate with mounting flange, gray



for 260 Series
Ⓔx **260-361** 100 (2x50)
for 261 Series
Ⓔx **261-361** 100 (2x50)
for 262 Series
Ⓔx **262-361** 50

Comb-style jumper bar, insulated, 2-way



Series	I_N	Reduc. Cross Sect.	Pack. Unit
260-402	10 A	1 mm²/18 AWG	25 pcs
261-402	16 A	1.5 mm²/16 AWG	25 pcs
262-402	16 A	2.5 mm²/14 AWG	25 pcs

Operating tool, insulated,



for comb-style jumper bar
2-way **209-132** 1

Mounting foot with screw, for DIN-35 rail, 6 mm wide, can be screwed on terminal blocks with mounting flange



Ⓔx **209-123** 25

Test plug module 100 (4x25)



Locking devices

Series	with	without
260 / 5 mm	**260-404**	**249-135**
8 mm	**260-405**	**249-138**
261 / 6 mm	**261-404**	**249-136**
10 mm	**261-405**	**249-139**
262 / 7 mm		**249-137**
12 mm		**249-140**

❹ Suitable for Ex i applications
Ⓔx Suitable for Ex e II applications

Item no. suffixes for terminal blocks and terminal strips with push-buttons (for 261 Series only)

Push-buttons on one side:



2-Cond. Block **261-.../331-000**
4-Cond. Block **261-.../332-000**

Push-buttons on both sides:



2-Cond. Block **261-.../341-000**
4-Cond. Block **261-.../342-000**

Operating tool with a partially insulated shaft,



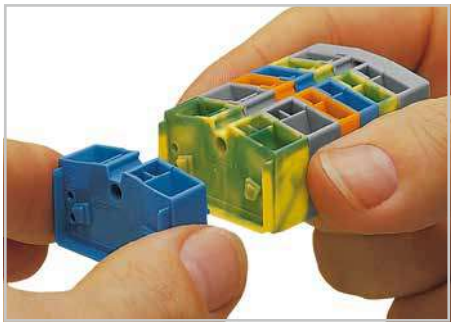
type 2, (3.5 x 0.5) mm blade
210-720 1

❶ For all approvals and corresponding ratings, visit www.wago.com.

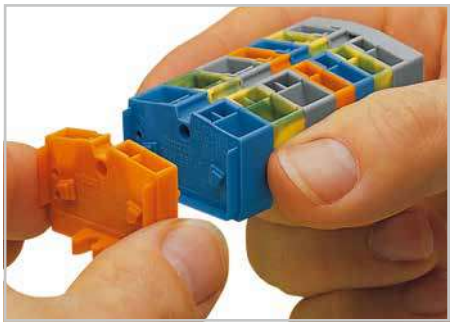
For technical explanations and abbreviations, see technical section.

Modular Terminal Blocks and Terminal Strips, Front-Entry – Description and Installation –

Assembly

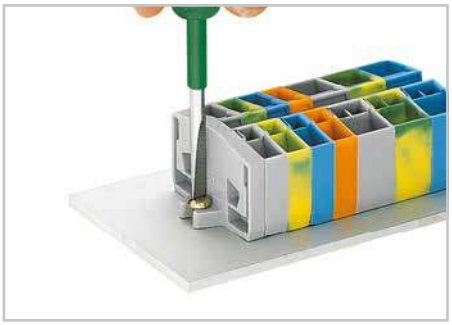


Assembling modular terminal blocks into terminal strips.



Mounting an “end terminal block” with mounting flange.

Mounting

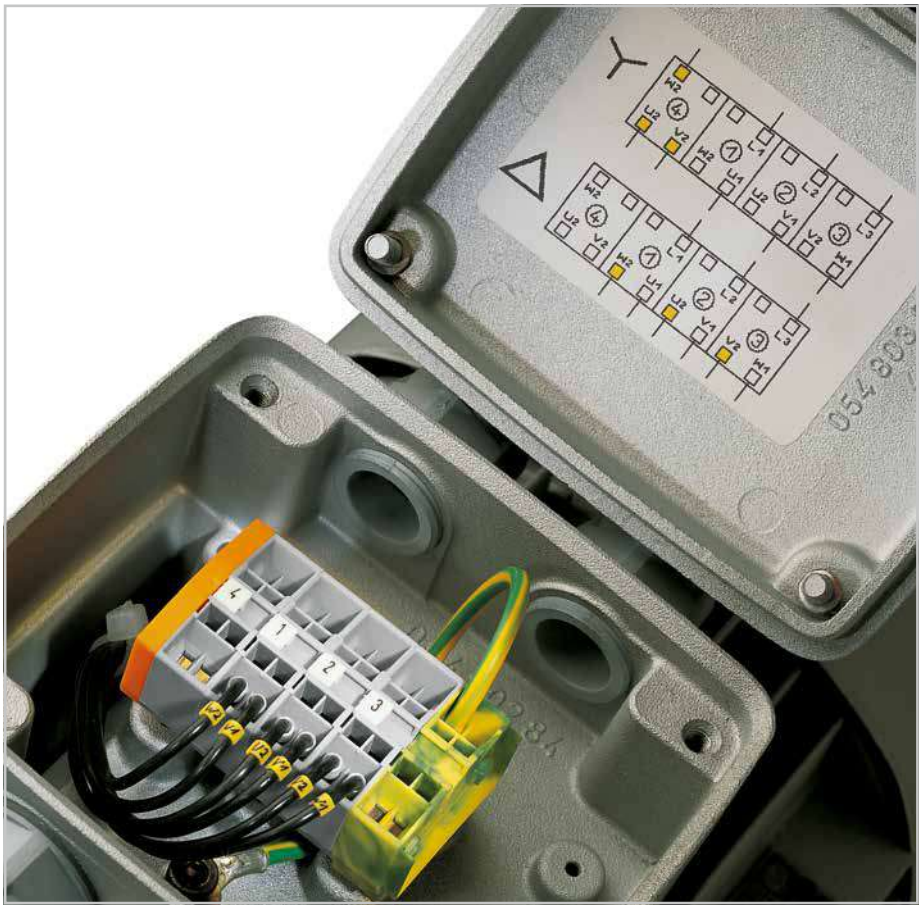


Mounting and securing a terminal strip directly to the plate via screw-type flanges.

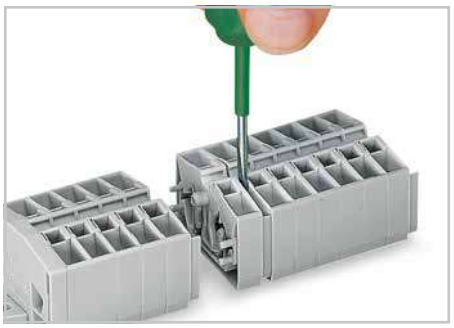
CAGE CLAMP® connection



Inserting a conductor via operating tool.

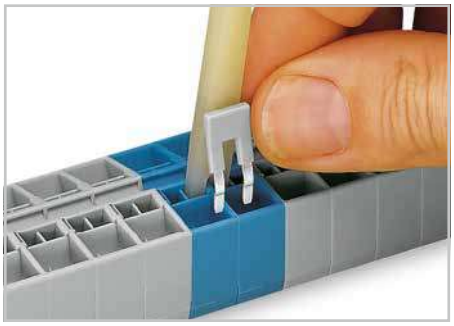


Removal



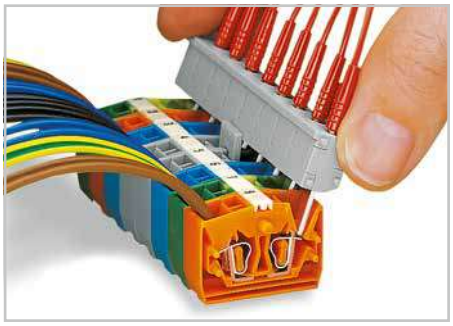
Removing a terminal block.

Commoning



Commoning with a comb-style jumper bar.

Testing



Testing with test plug module assembly – touch contact.

Marking



Marking using Miniature WSB Quick markers.

For information on Push-in CAGE CLAMP® connection, see page 14.

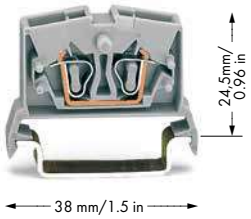
CAGE CLAMP®

Modular Terminal Blocks and Terminal Strips
264 Series

0.08 … 2.5 mm² / 800 V/8 kV/3 / I_N 24 A	28 … 12 AWG** / 600 V, 20 A / 600 V, 20 A
2-cond. terminal block width: 6 mm/0.236 in.	
4-cond. terminal block width: 10 mm/0.394 in.	
8 … 9 mm / 0.33 in.	
❶ Approvals	

0.08 … 2.5 mm² / 800 V/8 kV/3 / I_N 24 A | 28 … 12 AWG** / 600 V, 20 A / 600 V, 20 A
2-cond. terminal block width: 6 mm/0.236 in.
4-cond. terminal block width: 10 mm/0.394 in.
8 … 9 mm / 0.33 in.
❶ Approvals

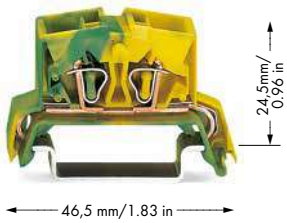
0.08 … 2.5 mm² / 800 V/8 kV/3 / I_N 24 A | 28 … 12 AWG** / 600 V, 20 A / 600 V, 20 A
2-cond. terminal block width: 6 mm/0.236 in.
4-cond. terminal block width: 10 mm/0.394 in.
8 … 9 mm / 0.33 in.
❶ Approvals







Color	Item No.	Pack. Unit 2-Cond. Block	Item No.	Pack. Unit 4-Cond. Block
Through terminal block, for DIN-35 rail				
gray	264-711	100	264-731	100
blue	264-714 ❷	100	264-734 ❷	100
orange	264-716	100	264-736	100
light gray Ex	264-125	100	264-225	100



4-conductor ground terminal block, for DIN-35 rail			
green-yellow	264-737	100	
green-yellow Ex	264-737/999-950	100	

Color	Item No.	Pack. Unit 2-Cond. Block	Item No.	Pack. Unit 4-Cond. Block
Center terminal block without mounting flange				
gray	264-321	100	264-351	100
blue	264-324 ❷	100	264-354 ❷	100
orange	264-326	100	264-356	100
green-yellow	264-327	100	264-357	100
light gray Ex	264-131	100	264-231	100
End terminal block with mounting flange				
gray	264-301	100	264-331	100
blue	264-304 ❷	100	264-334 ❷	100
orange	264-306	100	264-336	100
green-yellow	264-307	100	264-337	100
light gray Ex	264-130	100	264-230	100
Center terminal block with snap-in mounting foot				
gray	264-311	100	264-341	100
blue	264-314 ❷	100	264-344 ❷	100
orange	264-316	100	264-346	100
green-yellow	264-317	100	264-347	100
light gray Ex	264-180	100	264-280	100

Color	Item No.	Pack. Unit 2-Cond. Block	Item No.	Pack. Unit 4-Cond. Block
Terminal strip with mounting flanges, gray				
2	264-102	100	264-202	100
3	264-103	100	264-203	100
4	264-104	100	264-204	100
:	:		:	
10	264-110	25	264-210	25
11	264-111	25	264-211	25
12	264-112	25	264-212	25
Terminal strip with snap-in mounting feet, gray				
2	264-152	100	264-252	100
3	264-153	100	264-253	100
4	264-154	100	264-254	100
:	:		:	
10	264-160	25	264-260	25
11	264-161	25	264-261	25
12	264-162	25	264-262	25

Mixed-color terminal strips available upon request.

End plates for DIN-35 rail, 4 mm thick			
orange	264-369	25	
gray	264-368	25	
light gray	264-370	25	

End plates with mounting flange, 4 mm thick			
orange	264-361	25	
gray	264-364	25	
light gray	264-363	25	

End plate, for blocks with snap-in mounting foot, 4 mm thick			
orange	264-371	25	
gray	264-374	25	
light gray	264-373	25	

Accessories, 264 Series

Appropriate marking system: **Miniature WSB**

Comb-style jumper bar, insulated, I_N 16 A, 2-way	264-402	200 (8x25)	
reduces maximum conductor size to 1.5 mm²			
Alternate comb-style jumper bar, insulated, I_N = I_N terminal block, for 2-conductor terminal blocks	280-492	200 (8x25)	
for 4-conductor terminal blocks	281-492	100 (4x25)	
Separator for Ex e /Ex i applications, 66 mm wide, 4 mm thick			
orange	264-367	25	
DIN-35 rails and end stops, see Section 11			

Operating tool, insulated, 2-way, for comb-style jumper bar	280-432	1	
Aluminum carrier rail, 1,000 mm long, 18 mm wide, for version with mounting feet, 7 mm high	210-154	1	
Plastic end stop, with WSB marker slot, 6 mm wide, for 210-154 aluminum carrier rail			
gray	209-122	1	

❷ Suitable for Ex i applications
Ex Suitable for Ex e II applications
0.5 … 2.5 mm² 20 … 12 AWG**
690 V, 23 A

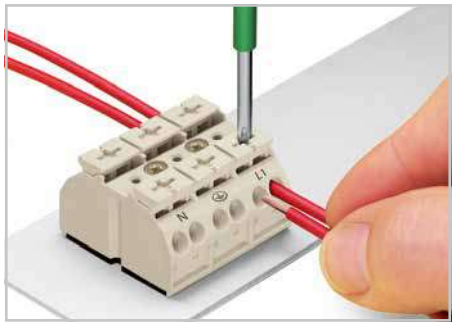
Test plug modules 6 mm wide	249-136	100 (4x25)	
10 mm thick	249-139	100 (4x25)	
Test plug, with 500 mm cable			
2 mm Ø	210-136	50	
2.3 mm Ø	210-137	50	
Operating tool with a partially insulated shaft, type 2, (3.5 x 0.5) mm blade	210-720	1	

❶ For all approvals and corresponding ratings, visit www.wago.com.
**12 AWG: THHN, THWN

For technical explanations and abbreviations, see technical section.
Please find the entire product range in our Full Line Catalog.

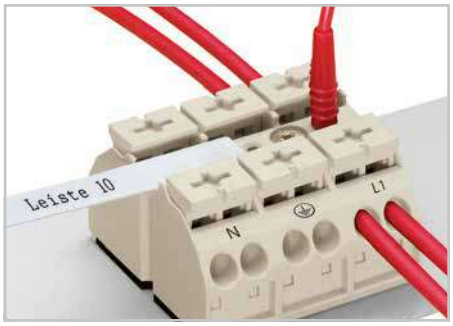
4-Conductor, Chassis-Mount Terminal Strips – Description and Installation –

Conductor termination



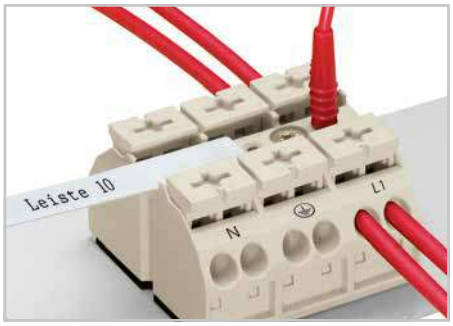
Four conductors per pole for solid and fine-stranded conductors

Marking



Marking by direct, one-side printing and/or marking strips.

Testing



Testing with 2 mm Ø test plug.

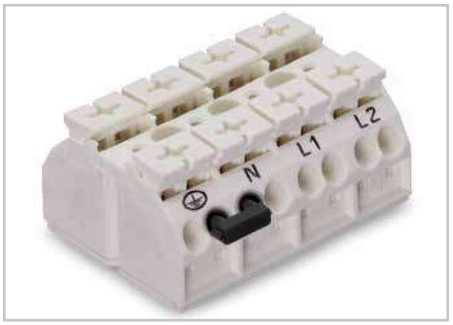
Ground (PE) contact



Makes an automatic contact to the mounting plate. The varnish coating is instantly penetrated.



Commoning



Commoning with comb-style jumper bar.

Cost-effective features:

The 862 Series Chassis-Mount Terminal Strips were developed specifically to **minimize wiring costs**, while accommodating requirements for flexible mounting, multiple connection points and easy handling:

- The 862 Series equipped with Push-in CAGE CLAMP® connects up to four conductors sized 20 ... 12 AWG (0.5 ... 4 mm²). Due to multiple connection points per pole, different conductor sizes can be used within the same terminal block position.
- For factory wiring, Push-in CAGE CLAMP® Connection Technology allows solid conductors, fine-stranded conductors with ferrules or ultrasonically bonded conductors from 20 ... 12 AWG (0.5 ... 4mm²) to be terminated by simply pushing them into unit (length of bonded conductor end: min. 10 mm)
- Convenient automatic grounding contact available as an option
- Snap-in mounting feet for fast assembly
- Push-buttons for easy installation with an operating tool or by hand
- Built-in test points simplify testing with 2 mm Ø test plug
- Flexible marking options with standard marking (pre-marked), marking strip or custom marked for large orders

For information on Push-in CAGE CLAMP® connection, see page 14.

4-Conductor, Chassis-Mount Terminal Strips 2-, 3-, 4- and 5-Pole, 4 mm²

862 Series

PUSH-IN CAGE CLAMP®

2

	0.5 … 4 mm² ❶ 500 V/6 kV/3 I_N 32 A	20 … 12 AWG 300 V, 20 A 300 V, 20 A	0.5 … 4 mm² ❶ 500 V/6 kV/3 I_N 32 A	20 … 12 AWG 300 V, 20 A 300 V, 20 A
	10 … 11 mm / 0.41 in.		10 … 11 mm / 0.41 in.	
	❷ Approvals		❷ Approvals	

❶ Conductor range: 0.25 … 4 mm² "s+f-st"
Push-in termination: 0.75 … 4 mm² "s" and
0.75 … 2.5 mm² "insulated ferrule, 12 mm"

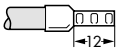


Available in white and black housings





2- and 3-pole







4- and 5-pole

without / with Ground (PE) contact	Marking	Item No. black	Item No. white	Pack. Unit	Marking	Item No. black	Item No. white	Pack. Unit
For fastening with a screw and nut (M3) or								
a self-tapping screw (2.9 mm Ø) from top,								
without ground contact	without	● 862-552	○ 862-652	500	without	● 862-504	○ 862-604	200
	L1-N	● 862-1552	○ 862-1652	500	⏚-N-L1-L2	● 862-1504	○ 862-1604	200
	N-L1	● 862-2552	○ 862-2652	500	N-⏚-L1-L2	● 862-2504	○ 862-2604	200
with ground contact					N-⏚-L1-L2	● 862-8504	○ 862-8604	200
					⏚-N-L1-L2	● 862-9504	○ 862-9604	200
For fasteningvia self-tapping screw (2.9 mm Ø) from below,								
without ground contact	without	● 862-562	○ 862-662	500	without	● 862-534	○ 862-634	200
	L1-N	● 862-1562	○ 862-1662	500	⏚-N-L1-L2	● 862-1534	○ 862-1634	200
	N-L1	● 862-2562	○ 862-2662	500	N-⏚-L1-L2	● 862-2534	○ 862-2634	200
with ground contact					N-⏚-L1-L2	● 862-8534	○ 862-8634	200
					⏚-N-L1-L2	● 862-9534	○ 862-9634	200
1 snap-in foot per pole,								
without ground contact	without	● 862-532	○ 862-632	500	without	● 862-594	○ 862-694	200
	L1-N	● 862-1532	○ 862-1632	500	⏚-N-L1-L2	● 862-1594	○ 862-1694	200
	N-L1	● 862-2532	○ 862-2632	500	N-⏚-L1-L2	● 862-2594	○ 862-2694	200
with ground contact					N-⏚-L1-L2	● 862-8594	○ 862-8694	200
					⏚-N-L1-L2	● 862-9594	○ 862-9694	200
For fastening screw and nut (3 mm Ø) or								
self-tapping screw (2.9 mm Ø) from top,								
without ground contact	without	● 862-503	○ 862-603	250	without	● 862-505	○ 862-605	200
	⏚-N-L1	● 862-1503	○ 862-1603	250	⏚-N-L1-L2-L3	● 862-1505	○ 862-1605	200
	N-⏚-L1	● 862-2503	○ 862-2603	250	N-⏚-L1-L2-L3	● 862-2505	○ 862-2605	200
with ground contact	N-⏚-L1	● 862-8503	○ 862-8603	250	N-⏚-L1-L2-L3	● 862-8505	○ 862-8605	200
	⏚-N-L1	● 862-9503	○ 862-9603	250	⏚-N-L1-L2-L3	● 862-9505	○ 862-9605	200
1 snap-in foot per pole,								
without ground contact	without	● 862-533	○ 862-633	250	without	● 862-525	○ 862-625	200
	⏚-N-L1	● 862-1533	○ 862-1633	250	⏚-N-L1-L2-L3	● 862-1525	○ 862-1625	200
	N-⏚-L1	● 862-2533	○ 862-2633	250	N-⏚-L1-L2-L3	● 862-2525	○ 862-2625	200
with ground contact	N-⏚-L1	● 862-8533	○ 862-8633	250	N-⏚-L1-L2-L3	● 862-8525	○ 862-8625	200
	⏚-N-L1	● 862-9533	○ 862-9633	250	⏚-N-L1-L2-L3	● 862-9525	○ 862-9625	200
Snap-in feet at pos. 1+3								
without ground contact	without	● 862-593	○ 862-693	250	without	● 862-515	○ 862-615	200
	⏚-N-L1	● 862-1593	○ 862-1693	250	⏚-N-L1-L2-L3	● 862-1515	○ 862-1615	200
	N-⏚-L1	● 862-2593	○ 862-2693	250	N-⏚-L1-L2-L3	● 862-2515	○ 862-2615	200
with ground contact	N-⏚-L1	● 862-8593	○ 862-8693	250	N-⏚-L1-L2-L3	● 862-8515	○ 862-8615	200
	⏚-N-L1	● 862-9593	○ 862-9693	250	⏚-N-L1-L2-L3	● 862-9515	○ 862-9615	200

Accessories, 862 Series

Comb-style jumper bar, simply push into the conductor entry



I_N 32 A	862-482	5	

Test plug, with 500 mm cable



● 2 mm Ø	210-136	50	
○ 2.3 mm Ø	210-137	50	

Marking strip, plain, 7.5 mm wide, 50 m roll

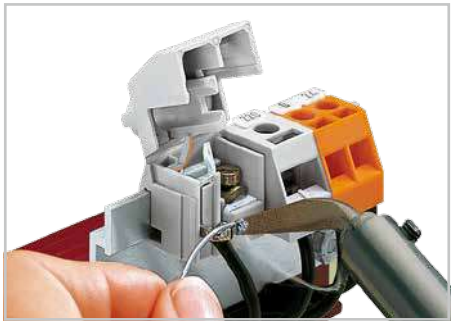


○	709-178	1

❷ Approvals are available online at: www.wago.com.

Transformer Terminal Blocks with Screw Clamp Connection, 200 / 201 / 202 Series – Description and Installation –

Solder connection



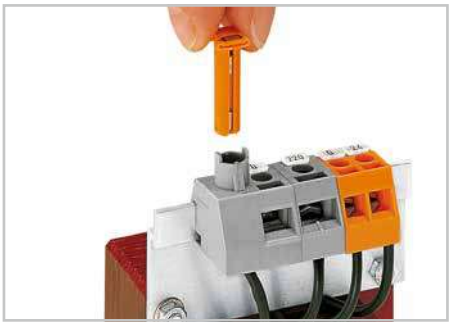
Soldering winding ends.

Snapping cover



Snapping cover onto 202 Series terminal block.

Fuse



Touch-proof insertion/removal of fuse carrier

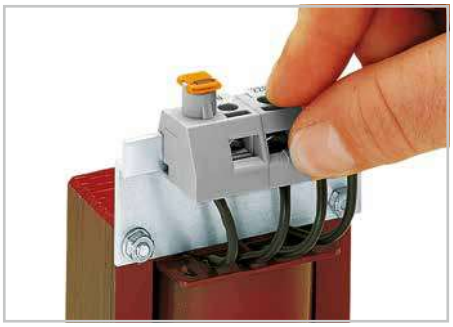
Conductor termination



Large conductor entries and clear identification of the connection points

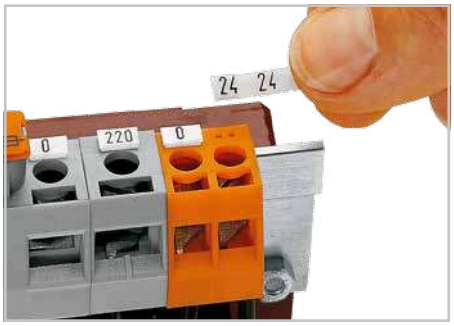


Finger guard



All WAGO transformer terminal blocks are touch-proof per VBG 4.

Beschriften



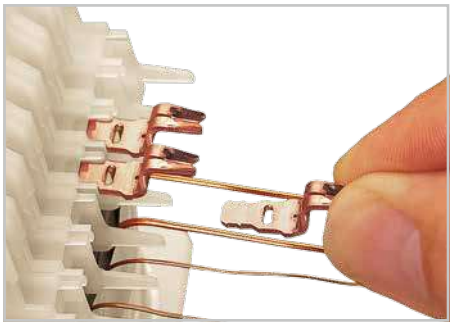
Terminal identification with marker tags

- Simple snap-on mounting on flat rails
- Easy conductor termination via self-lifting clamping ring
- Large cross-section range up to 10 mm² (57 A)

Transformer Terminal Blocks with CAGE CLAMP® Connection, 711 Series – Description and Handling –

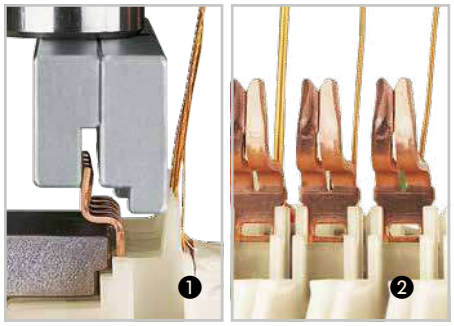
CAGE CLAMP®

Installation*



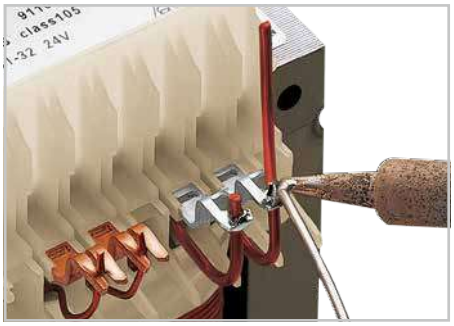
Pre-assembly of coil contacts:
Inserting a contact into the coil bobbin.

Insulation Displacement Connection (IDC)



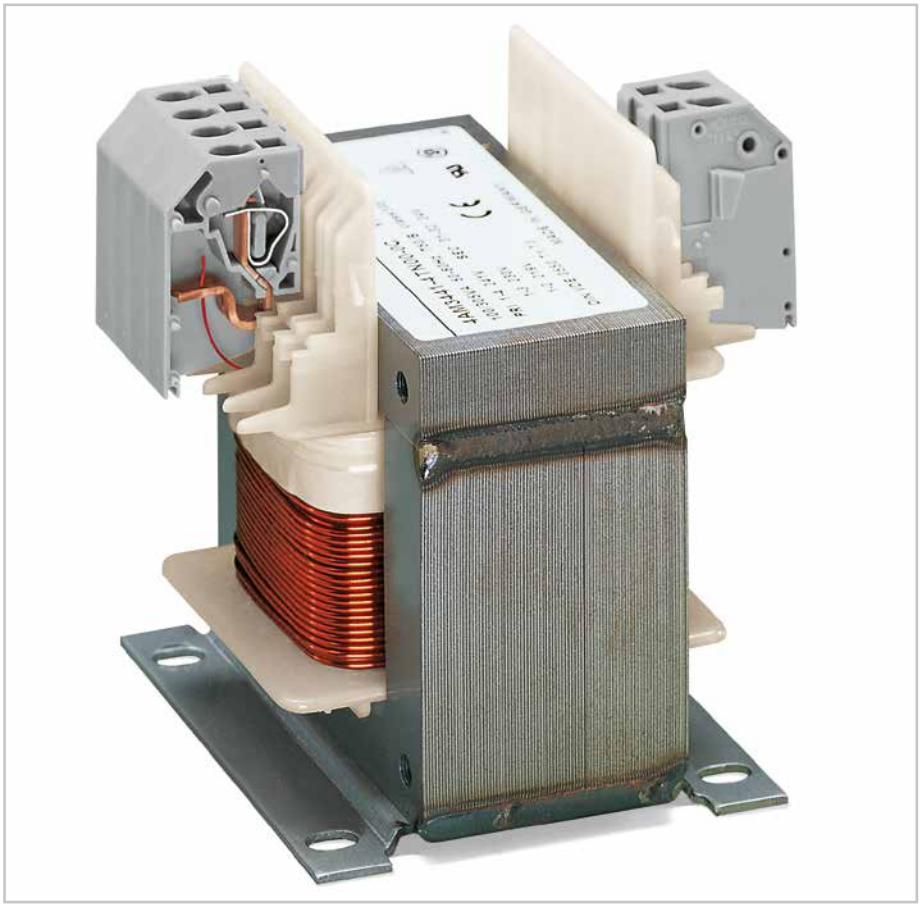
Final assembly of coil contacts:
- Pressing in contacts via tool ❶
- Final position ❷

Solder connection



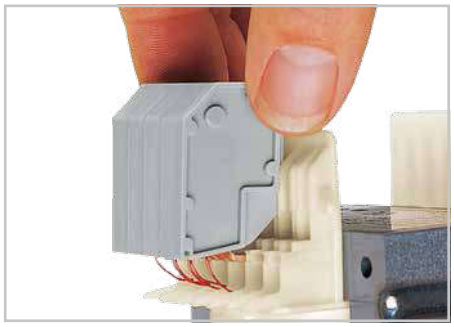
Combining IDC and solder connection – coil contacts with solder connection for larger cross-sections or connection of several coil wires (center tap)

*Detailed installation notes upon request



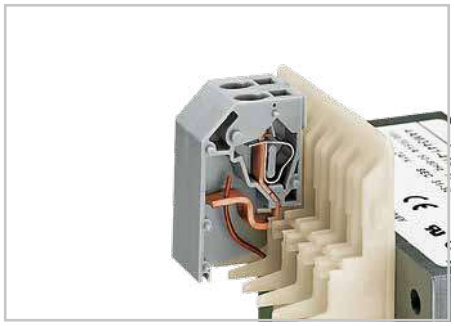
- Fast wiring through direct contact with the varnished coil wires
- Up to 90 % faster – no soldering required for small conductor sizes
- Modular block assembly means that only one snap-on process is required for the terminal blocks

Mounting



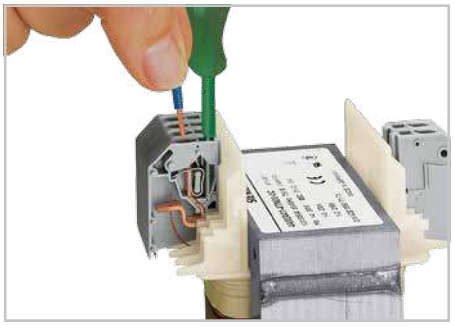
After connecting the coil wires (IDC: only one wire per contact) – looping possible), snap terminal blocks and end plate together before mounting the terminal block assembly onto the coil bobbin.

Final position



Terminal block in final position (primary side)

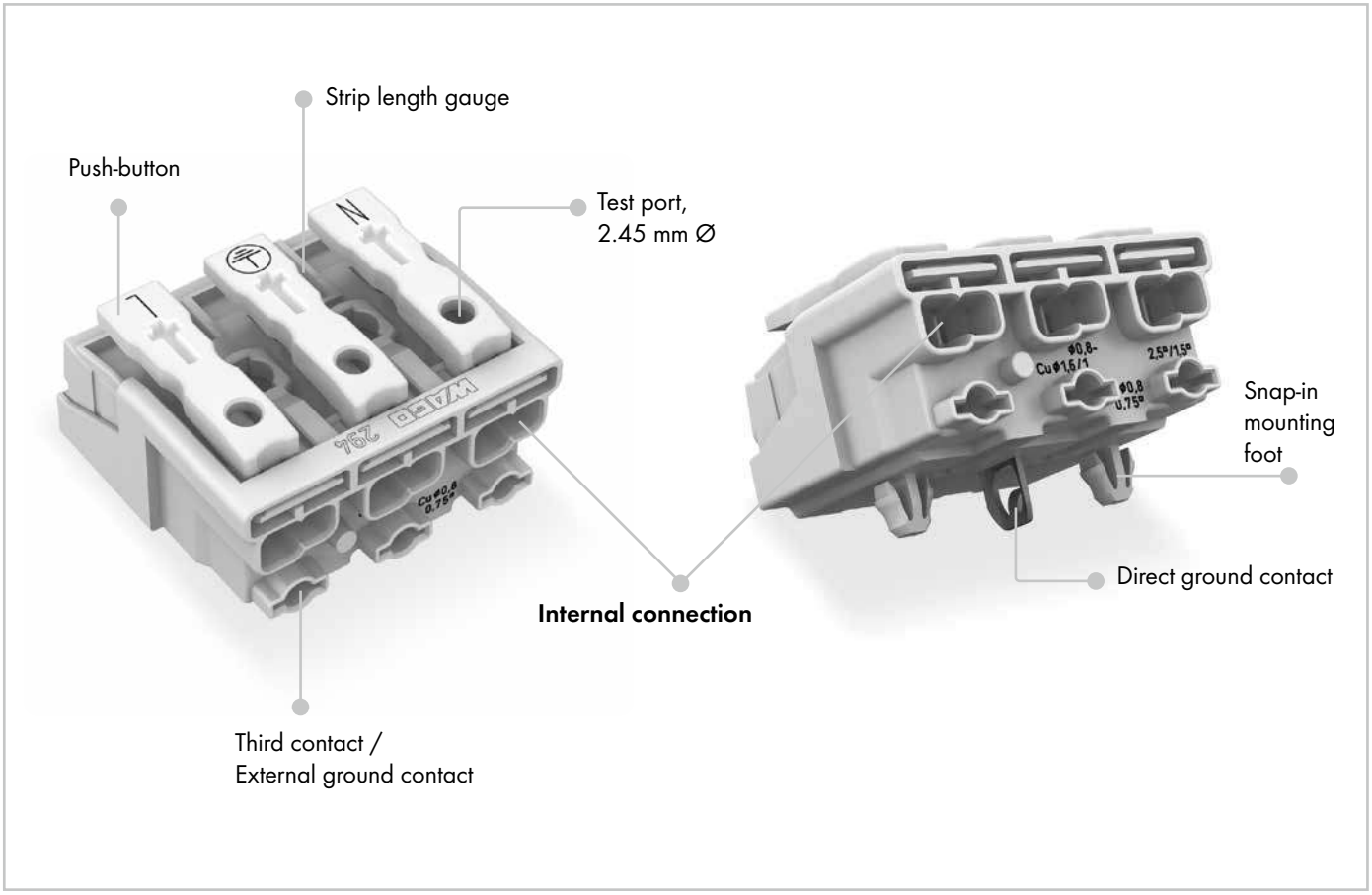
CAGE CLAMP® connection 0.08 … 4 mm²



Conductor termination (secondary side)

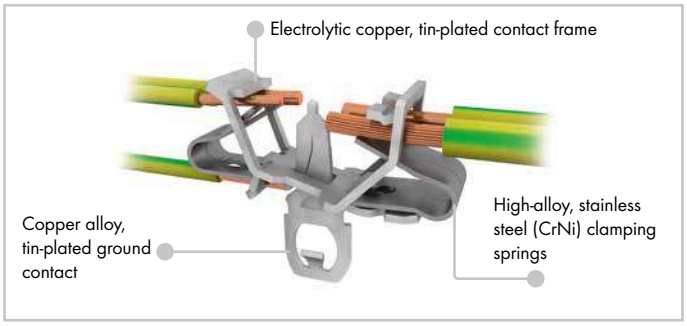
For information on CAGE CLAMP® connection, see page 14.

Field-Wiring Terminal Blocks for Lighting and Equipment – Description and Handling –

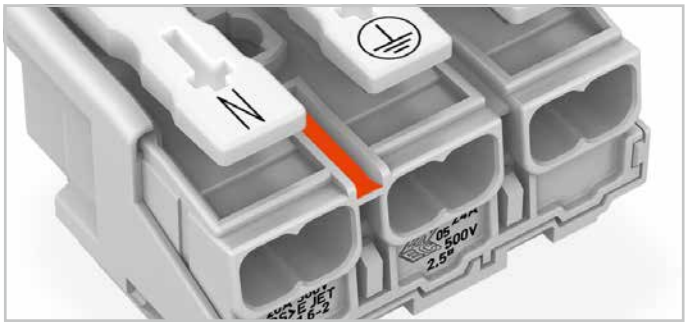




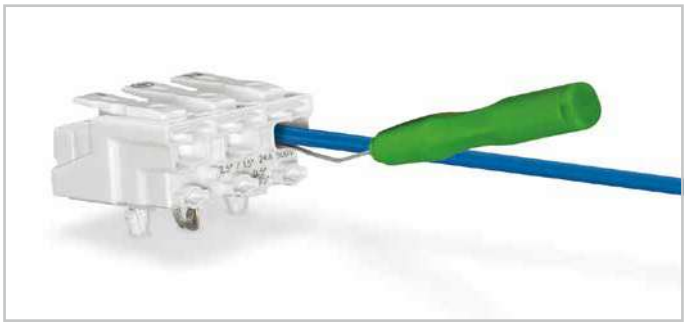
Application example



Contact technology



Integrated strip length gauge

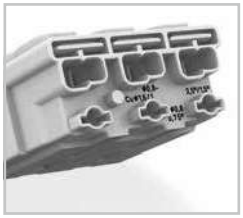


Conductor removal: Slide disconnection tool beneath the conductor and pull conductor out.

For information on Push-in CAGE CLAMP® connection, see page 14.
For information on PUSH WIRE® connection, see page 15.

PUSH WIRE®
PUSH-IN CAGE CLAMP®

Lighting Terminal Blocks
294 Series




Without Ground Contact	With Direct Ground Contact	With Screw-Type Ground Contact	With Snap-In Ground Contact	With Angled Snap-In Ground Contact
				

2

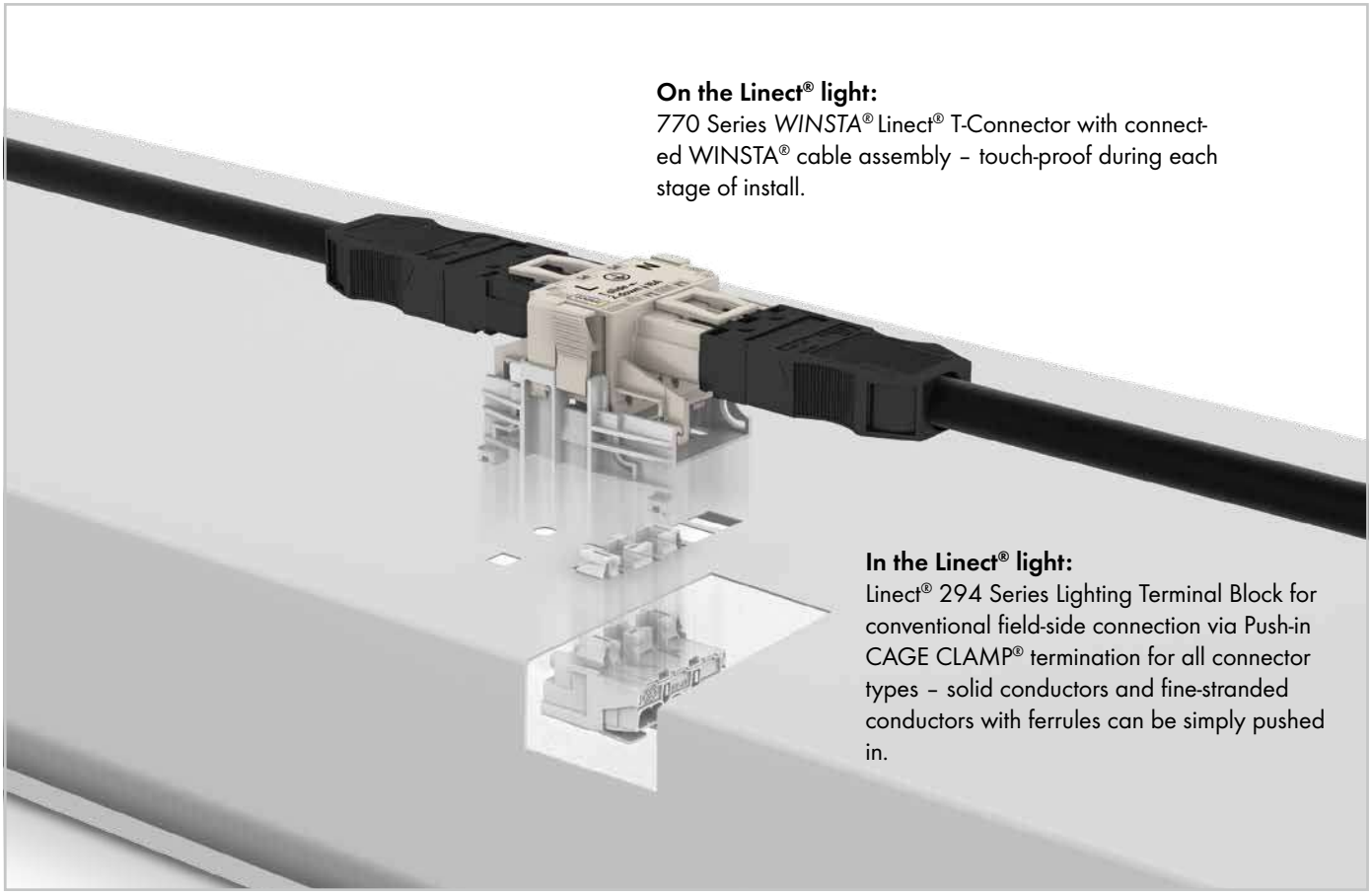
Pole No.	Marking	Item No. Without Snap-In Feet	Item No. With Snap-In Feet	Item No. Without Snap-In Feet	Item No. With Snap-In Feet	Item No. Without Snap-In Feet	Item No. With Snap-In Feet	Item No. Without Snap-In Feet	Item No. With Snap-In Feet	Item No. Without Snap-In Feet	Item No. With Snap-In Feet
2 	without	294-4002	294-5002	–	–	–	–	–	–	–	–
	N L	294-4012	294-5012	–	–	–	–	–	–	–	–
	N' L'	294-4022	294-5022	–	–	–	–	–	–	–	–
	DA- DA+	294-4032	294-5032	–	–	–	–	–	–	–	–
	- +	294-4072	294-5072	–	–	–	–	–	–	–	–
	1 N	294-4052	294-5052	–	–	–	–	–	–	–	–
	2 1	294-4042	294-5042	–	–	–	–	–	–	–	–
3 	without	294-4003	294-5003	–	–	–	–	–	–	–	–
	N ⏚ L	294-4013	294-5013	–	294-5113	294-4413	294-5413	294-4213	294-5213	294-4313	294-5313
	N' ⏚ L'	294-4023	294-5023	–	294-5123	294-4423	294-5423	294-4223	294-5223	294-4323	294-5323
	1 ⏚ N	294-4053	294-5053	–	294-5153	294-4453	294-5453	294-4253	294-5253	294-4353	–
	3 2 1	294-4043	294-5043	–	–	–	–	–	–	–	–
4 	without	294-4004	294-5004	–	–	–	–	–	–	–	–
	1/L' 2/L ⏚ N	294-4024	294-5024	–	294-5124	294-4424	294-5424	294-4224	294-5224	294-4324	294-5324
	1 2 ⏚ N	294-4014	294-5014	–	294-5114	294-4414	294-5414	294-4214	294-5214	294-4314	294-5314
	4 3 2 1	294-4044	294-5044	–	–	–	–	–	–	–	–
5 	without	294-4005	294-5005	–	–	–	–	–	–	–	–
	L3 L2 L1 ⏚ N	294-4015	294-5015	–	–	294-4415	294-5415	294-4215	294-5215	294-4315	294-5315
	L' N' L ⏚ N	294-4025	294-5025	–	–	294-4425	294-5425	294-4225	294-5225	294-4325	294-5325
	DA+ DA- L ⏚ N	294-4035	294-5035	–	–	294-4435	294-5435	294-4235	294-5235	294-4335	294-5335
	DA- N ⏚ L DA+	294-4075	294-5075	–	294-5175	294-4475	294-5475	294-4275	294-5275	294-4375	294-5375
	3 N ⏚ 1 2	294-4055	294-5055	–	294-5155	294-4455	294-5455	294-4255	294-5255	294-4355	294-5355
	5 4 3 2 1	294-4045	294-5045	–	–	–	–	–	–	–	–
6 	without	294-4006	–	–	–	–	–	–	–	–	–
7 	without	294-4007	–	–	–	–	–	–	–	–	–

Accessories

	**Disconnection tool,** for removing conductors from PUSH WIRE® connections	**206-294** 1

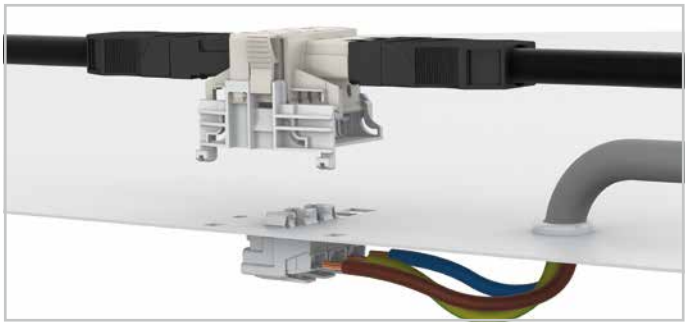
Approvals are available online at: www.wago.com.

Lighting Terminal Blocks
– Description and Handling –

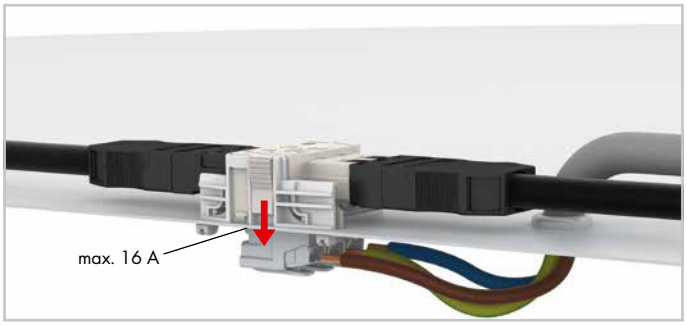


On the Linect® light:
770 Series *WINSTA*® Linect® T-Connector with connected WINSTA® cable assembly – touch-proof during each stage of install.

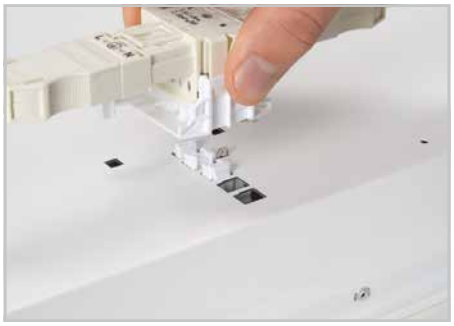
In the Linect® light:
Linect® 294 Series Lighting Terminal Block for conventional field-side connection via Push-in CAGE CLAMP® termination for all connector types – solid conductors and fine-stranded conductors with ferrules can be simply pushed in.



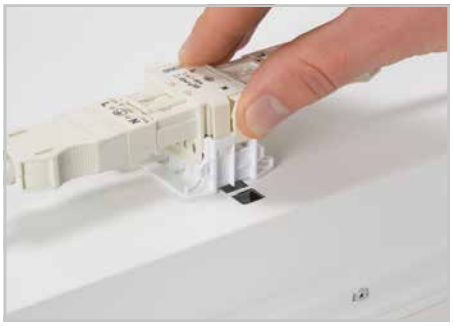
The WAGO 294 Series Lighting Terminal Blocks allow worldwide connection of luminaires via *WINSTA*® Pluggable Connectors or conventional wiring.



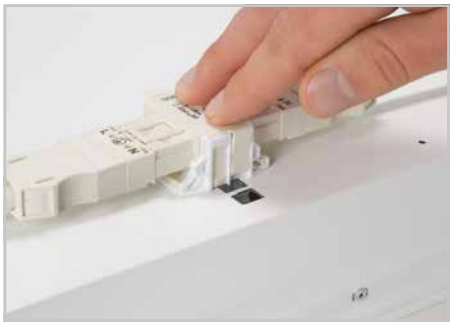
WAGO Linect® Lighting Terminal Blocks are ideal for connecting additional consumers that were not originally planned (e.g., spots). The maximum current between *WINSTA*® Linect® T-Connector and Lighting Terminal Block is 16 A.



Position the T-connector within the two square recesses.



Move the T-connector toward the square cutouts until it is locked in position.



Push connector down until fully engaged.

For information on Push-in CAGE CLAMP® connection, see page 14.
For information on PUSH WIRE® connection, see page 15.

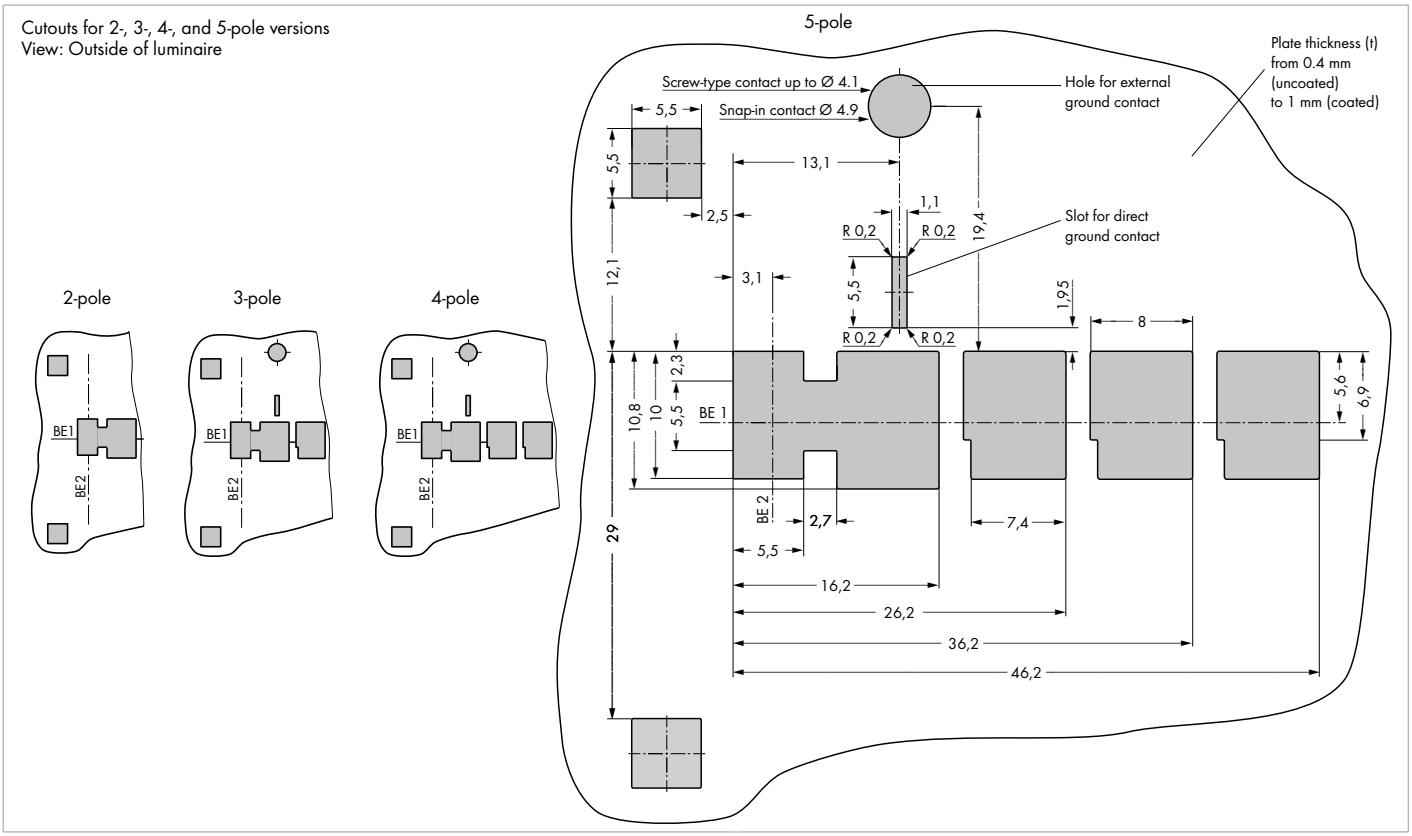
PUSH WIRE®
PUSH-IN CAGE CLAMP®

Lighting Terminal Blocks
Linect® 294 Series

Without Ground Contact	With Direct Ground Contact	With Screw-Type Ground Contact	With Snap-In Ground Contact	With Angled Snap-In Ground Contact
				

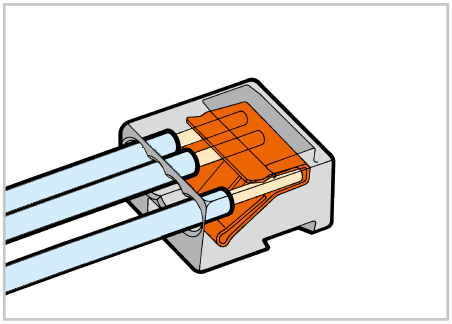
Pole No.	Marking	Item No.	Item No.	Item No.	Item No.	Item No.
2 	N' L'	**294-8022**	– – –	– – –	– – –	– – –
3 	N ⏚ L (mains)	**294-8013**	**294-8113**	**294-8413**	**294-8213**	**294-8313**
4 	1/L' 2/L ⏚ N	**294-8024**	**294-8124**	**294-8424**	**294-8224**	**294-8324**
5 	DA+ DA– L ⏚ N	**294-8035**	**294-8135**	**294-8435**	**294-8235**	**294-8335**
	L' N' L ⏚ N	**294-8025**	**294-8125**	**294-8425**	**294-8225**	**294-8325**
	L3 L2 L1 ⏚ N	**294-8015**	**294-8115**	**294-8415**	**294-8215**	**294-8315**

Cutouts for 2-, 3-, 4-, and 5-pole versions
View: Outside of luminaire

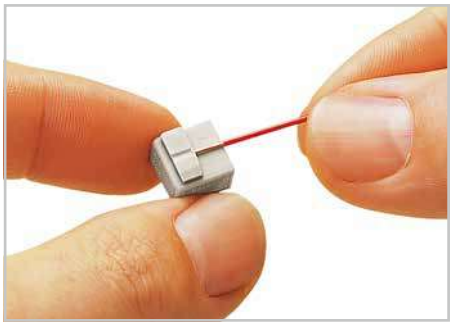


Approvals are available online at: www.wago.com.

MICRO PUSH WIRE® Connectors for Junction Boxes – Description and Handling –



Strip length



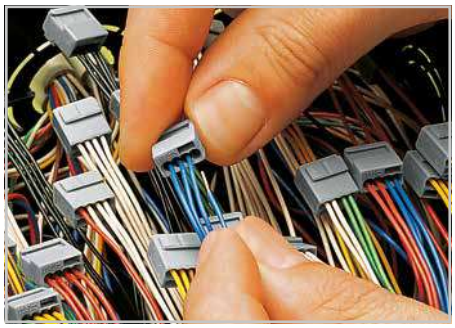
Strip solid conductors to 5 ... 6 mm.

Connector strips

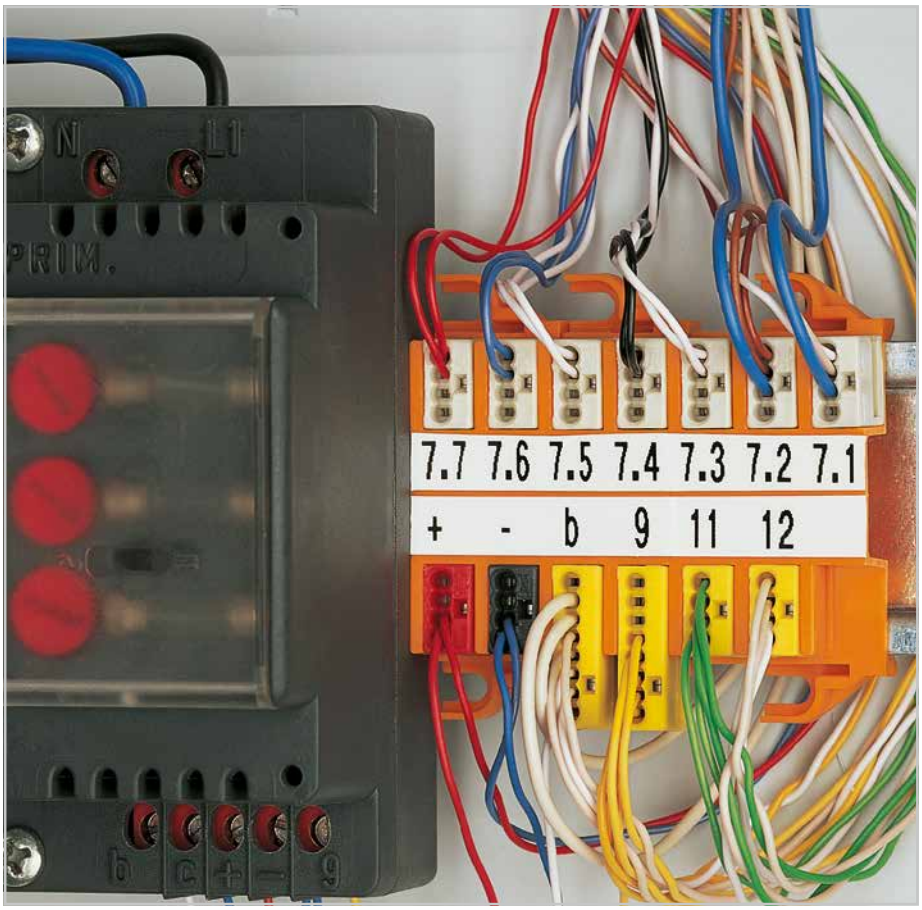


Assembling modular connectors into connector strips.

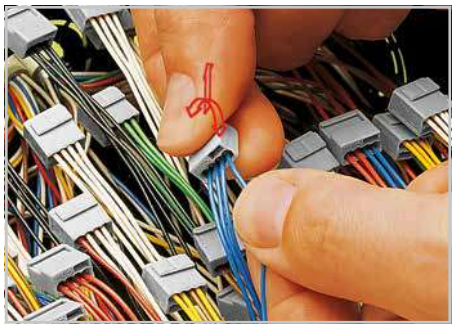
PUSH WIRE® connection



Termination: Insert stripped conductor until it hits backstop.



PUSH WIRE® connection



Removal: Hold conductor to be removed and twist alternately left and right while pulling the connector.

Testing

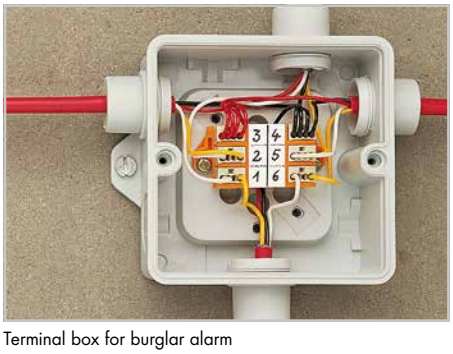


Testing

Applications



Switch (specialty connectors with solder pin termination)



Terminal box for burglar alarm

For information on PUSH WIRE® connection, see page 15.

PUSH WIRE® connectors for KNX and EIB applications, see full line catalog.

PUSH WIRE®

MICRO PUSH WIRE® Connectors for Junction Boxes, Mounting Carriers

243 Series

0.6 … 0.8 mm Ø "s"*
100 V/1.5 kV/2
I_N 6 A

22 … 20 AWG "s"*
150 V, 7 A
150 V, 7 A

5 … 6 mm / 0.22 in.

❶ Approvals



Color	Item No.	Pack. Unit
MICRO PUSH WIRE® connector for junction boxes,		
4-cond. connectors		
dark gray	**243-204**	1000 (10x100)
red	**243-804**	1000 (10x100)
light gray	**243-304**	1000 (10x100)
yellow	**243-504**	1000 (10x100)

0.6 … 0.8 mm Ø "s"*
100 V/1.5 kV/2
I_N 6 A

22 … 20 AWG "s"*
150 V, 7 A
150 V, 7 A

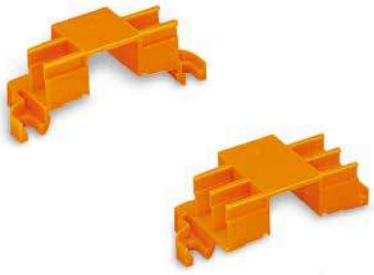
5 … 6 mm / 0.22 in.

❶ Approvals



Color	Item No.	Pack. Unit
MICRO PUSH WIRE® connector for junction boxes,		
8-cond. connectors		
dark gray	**243-208**	500 (10x50)
red	**243-808**	500 (10x50)
light gray	**243-308**	500 (10x50)
yellow	**243-508**	500 (10x50)

Mounting carriers
for MICRO PUSH WIRE® connectors for junction boxes



Description	Item No.	Pack. Unit
Mounting carrier,		
for 4 connectors	**243-112**	50 (5x10)
for 6 connectors	**243-113**	50 (5x10)
Marking strip,		
7 mm high, 6 strips per card		
plain	**243-110**	1

0.4 … 0.5 mm Ø "s"*
100 V/1.5 kV/2
I_N 6 A

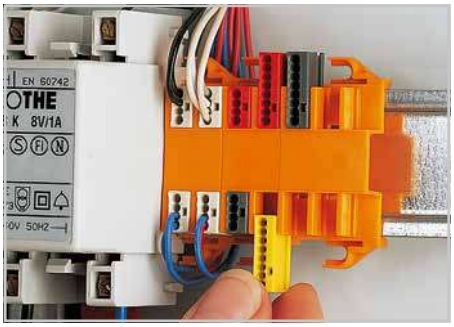
26 … 24 AWG "s"*

5 … 6 mm / 0.22 in.

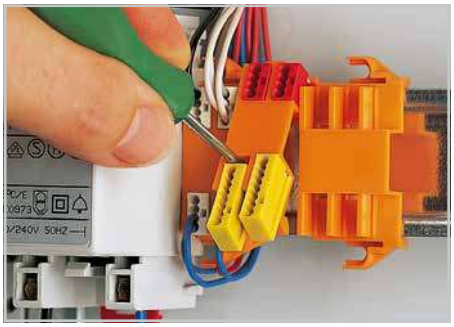
❶ Approvals



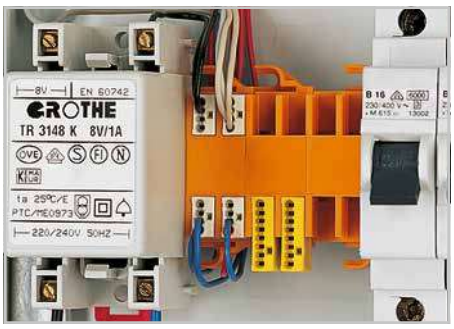
Color	Item No.	Pack. Unit
MICRO PUSH WIRE® connector for junction boxes,		
4-cond. connectors		
transparent	**243-144**	1000 (10x100)



Inserting a connector into the mounting carrier.

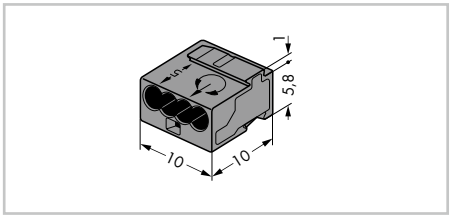


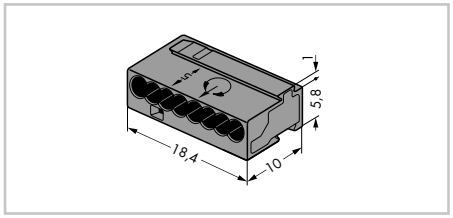
Removing a mounting carrier from the DIN-rail.



DIN-35 rail-mount application (residential door bell)

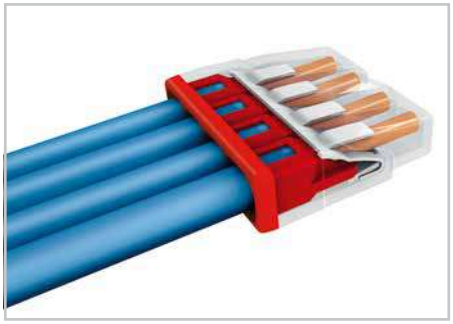
Dimensions

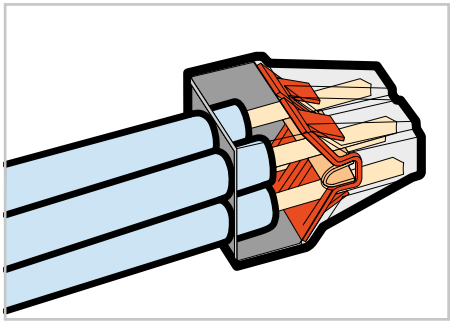




❶ Approvals are available online at: www.wago.com. For technical explanations and abbreviations, see technical section.
*When using conductors of exclusively the same diameter, 0.5 mm (24 AWG) or 1.0 mm (18 AWG) diameters are also possible.

PUSH WIRE® Connectors for Junction Boxes – Description and Handling –





Strip length



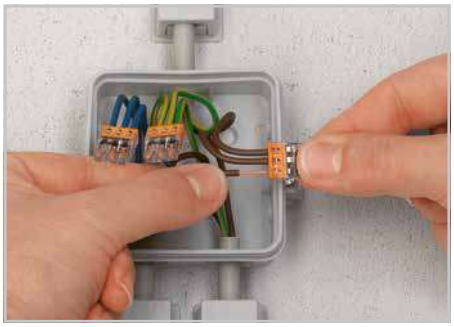
Strip solid conductor to the appropriate length (see marking).

Testing

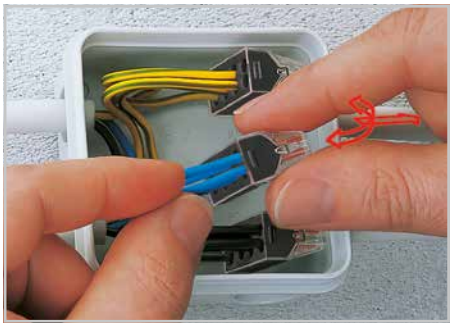


Testing

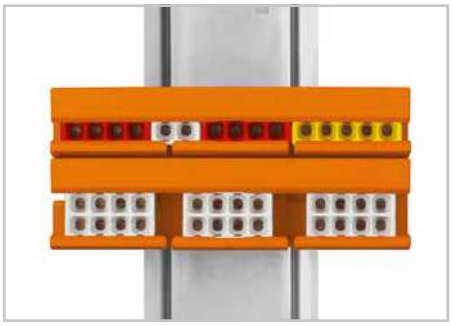
PUSH WIRE® connection



Insert stripped solid conductor until it hits backstop.



Removal: Hold conductor to be removed and twist alternately left and right while pulling the connector.



The mounting carrier is suitable for both connector profiles.



Secured in position – on a DIN-35 rail (773 Series Mounting Carrier)

COMPACT PUSH WIRE® Connectors for Junction Boxes

2273 Series

0.5 ... 2.5 mm² "s"
450 V/ 4 kV/ 2*
I_N 24 A

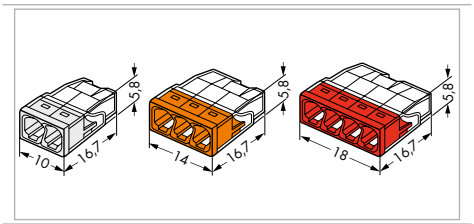
18 ... 14 AWG "s"

11 mm / 0.43 in.

❶ Approvals



Color	Item No.	Pack. Unit
COMPACT PUSH WIRE® connector for junction boxes,		
transparent housing		
2 conductors	**2273-202**	1000 (10x100)
3 conductors	**2273-203**	1000 (10x100)
4 conductors	**2273-204**	1000 (10x100)



0.5 ... 2.5 mm² "s"
450 V/ 4 kV/ 2*
I_N 24 A

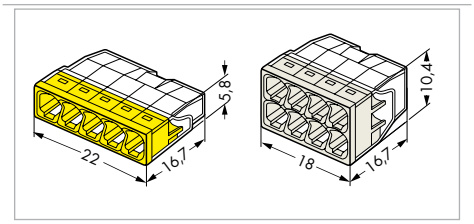
18 ... 14 AWG "s"

11 mm / 0.43 in.

❶ Approvals



Color	Item No.	Pack. Unit
COMPACT PUSH WIRE® connector for junction boxes,		
transparent housing		
5 conductors	**2273-205**	1000 (10x100)
8 conductors	**2273-208**	500 (10x50)



For information on PUSH WIRE® connection, see page 15.
❶ Approvals are available online at: www.wago.com.

***In grounded power lines
For technical explanations and abbreviations, see technical section.

PUSH WIRE®

PUSH WIRE® Connectors for Junction Boxes

773 Series

1 ... 2.5 mm² "s+st" ** | 14 ... 12 AWG "s+st"
400 V/ 4 kV/ 2 ***
I_N 24 A
600 V, 20 A UL
600 V, 20 A CSA

10 ... 13 mm / 0.45 in.

❶ Approvals

1.5 ... 4 mm² "s+st"
400 V/ 4 kV/ 2
I_N 32 A

12 mm / 0.47 in.

❶ Approvals

2.5 ... 6 mm² "s+st" | 14 ... 10 AWG "s+st"
400 V/ 4 kV/ 2 ***
550 V Ex
I_N 41 A
600 V, 20 A UL
600 V, 30 A CSA

12 ... 13 mm / 0.49 in.
12 ... 15 mm / 0.53 in. Ex

❶ Approvals








Item No. 2 conductors	Item No. 4 conductors	Pack. Unit
PUSH WIRE® connector for junction boxes,		
transparent housing (Ex light gray)		
Width X = 9.2 mm	Width X = 13 mm	
773-102	**773-104**	1000
773-112 ❷	**773-114** ❷	1000
773-132 ❸	**773-134** ❸	1000
773-492 Ex	**773-494** Ex	1000
	773-514 ❹	1000

Item No. 2 conductors	Item No. 4 conductors	Pack. Unit
PUSH WIRE® connector for junction boxes,		
transparent housing		
Width X = 9.2 mm	Width X = 13 mm	
773-602	**773-604**	100

Item No. 3 conductors	Pack. Unit
PUSH WIRE® connector for junction boxes,	
transparent housing	
773-173	500(10x50)
light gray housing	
773-493 Ex	500(10x50)

1 ... 2.5 mm² "s+st" ** | 14 ... 12 AWG "s+st"
400 V/ 4 kV/ 2 ***
I_N 24 A
600 V, 20 A UL
600 V, 20 A CSA

10 ... 13 mm / 0.45 in.

❶ Approvals

1.5 ... 4 mm² "s+st"
400 V/ 4 kV/ 2
I_N 32 A

12 mm / 0.47 in.

❶ Approvals

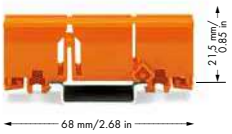
Mounting carrier for 773 Series Junction Box Connectors

for 2273 Series COMPACT Junction Box Connectors





773 Series



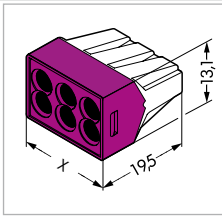
2273 Series



Item No. 6 conductors	Item No. 8 conductors	Pack. Unit
PUSH WIRE® connector for junction boxes,		
transparent housing (Ex light gray)		
Width X = 18.8 mm	Width X = 24 mm	
773-106	**773-108**	500
773-116 ❷	**773-118** ❷	500
773-136 ❸	**773-138** ❸	500
773-166		500
773-496 Ex	**773-498** Ex	500

Item No. 6 conductors	Pack. Unit
PUSH WIRE® connector for junction boxes,	
transparent housing	
Width X = 18.8 mm	
773-606	50

Color	Item No.	Pack. Unit
Mounting carrier		
	773-332	50(5x10)
	773-331 Ex	50(5x10)
	2273-500	50(5x10)
"Alu-Plus" contact paste, 20 ml syringe		
	249-130	20(4x5)



Pole No.	x in mm
2	9,2
4	13
6	18,8
8	24





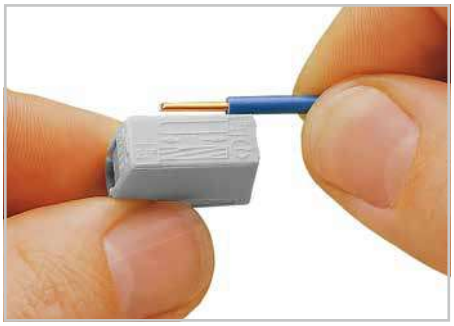
**Ex

❷ only for the USA ❸ only for Japan ❹ for 150 °C continuous operating temperature Ex To be used only in conjunction with 773-331 Mounting Carrier.

Lighting and "Service" Connectors
224 / 873 Series

PUSH WIRE®
CAGE CLAMP®

Strip length



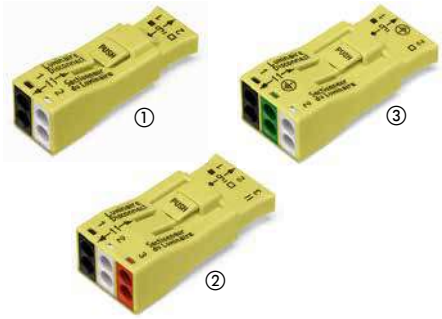
Strip conductor to 9 ... 11 mm.

Installation side	
1 ... 2.5 mm² "s"	**14 ... 12 AWG**
2 x 1.0 ... 2.5 mm² "s"	**16 ... 14 AWG**
Lighting side	
0.5 ... 2.5 mm² "s+f-st"	**20 ... 16 AWG**
400 V/4 kV/2*, I_N 24 A	**300 V, 20 A**
9 ... 11 mm / 0.39 in.	

2-conductor plug	**1-conductor socket**
18 ... 12 AWG "s"	**18 AWG "s"**
16 ... 12 AWG "st"	**600 V, 6 A**
11 ... 13 mm / 0.47 in.	
9 ... 11 mm / 0.39 in.	

❶ Approvals





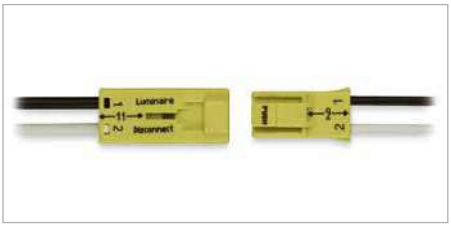
Testing



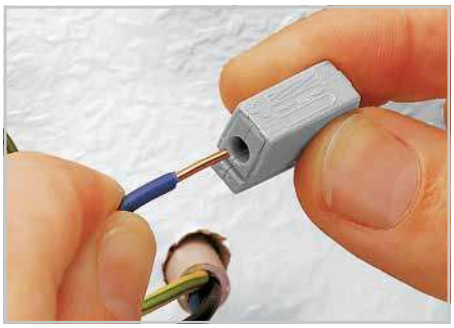
Voltage testing via separate test ports.

Color	Item No.	Pack. Unit
Lighting connector,		
standard version for		
continuous operating temperature of 105 °C		
gray	**224-101**	1000
Version for increased		
continuous operating temperature of 120 °C		
black	**224-104**	100
2-conductor lighting connector,		
standard version for		
continuous operating temperature of 105 °C		
white	**224-112**	1000
Version for increased		
continuous operating temperature of 120 °C		
black	**224-114**	100
"Service" connector		
gray	**224-201**	50

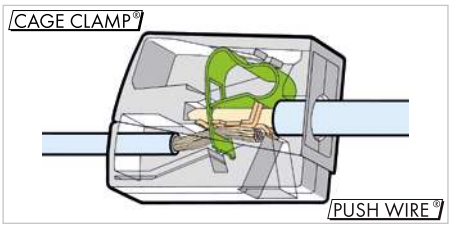
Type/Pole No.	Item No.	Pack. Unit
Luminaire disconnect connector (U.S. Version),		
type ①		
2	**873-902**	40
Luminaire disconnect connector (U.S. Version),		
type ②		
3	**873-903**	20
Luminaire disconnect connector (U.S. Version),		
type ③, preceding ground contact in center position		
3	**873-953**	500

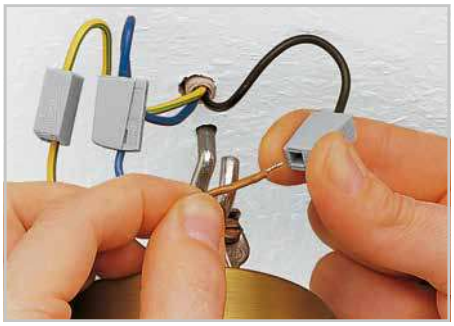


Conductor termination

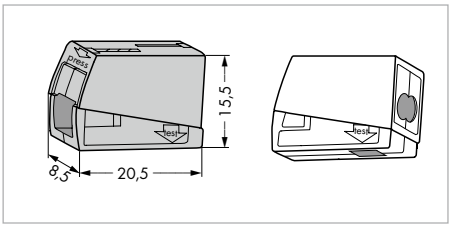


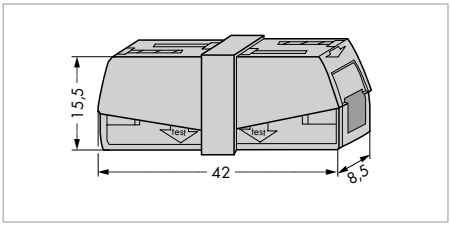
Installation side:
Insert stripped solid conductor into circular entry and push until it hits the backstop.

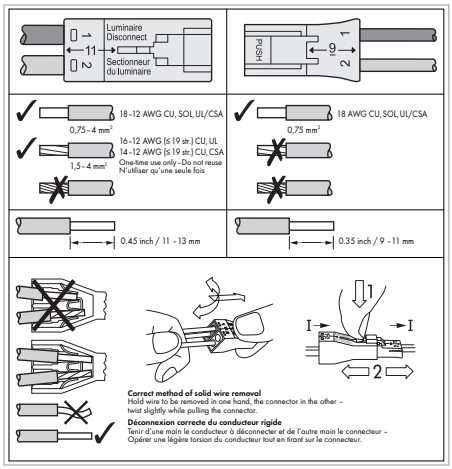




Lighting side:
Press button fully, insert stripped conductor into square entry and release.





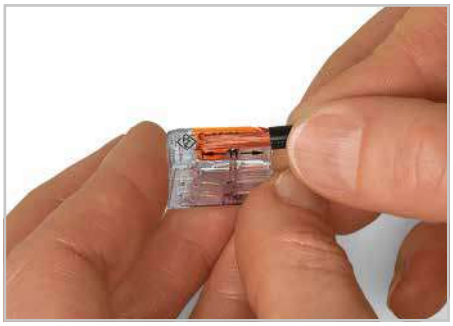


❶ Approvals are available online at: www.wago.com.

Lever-Actuated Splicing Connectors for All Conductor Types
221 / 222 Series

CAGE CLAMP®

Strip length



Strip conductor to 11 mm (221 Series).
Strip conductor to 9 … 10 mm (222 Series).



Lighting distribution in ceiling canopy

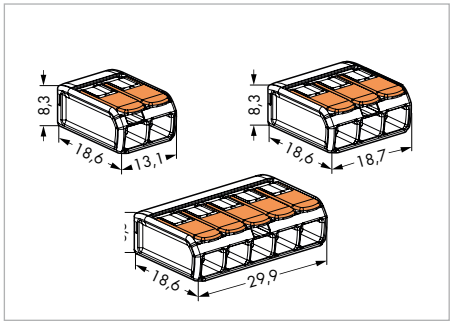
Conductor termination

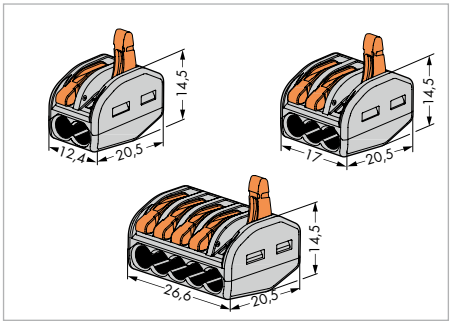


Conductor termination: Open the clamping unit using the lever and insert conductor. Then, lower the lever to close the clamp.



Vertical mounting with strain relief plate on DIN-35 rail; labeling clamping units via marking strips for 221/222 Series.





0.2 … 4 mm² "s+st"
0.14 … 4 mm² "f-st"
450 V/4 kV/2*
I_N 32 A

24 … 12 AWG

11 mm / 0.43 in.
❶ Approvals

0.08 … 2.5 mm² "s+f-st"
0.08 … 4 mm² "f-st"
400 V/4 kV/2*
I_N 32 A

28 … 14 AWG "s+f-st"
28 … 12 AWG "f-st"
600 V, 20 A ®

9 … 10 mm / 0.37 in.
❶ Approvals



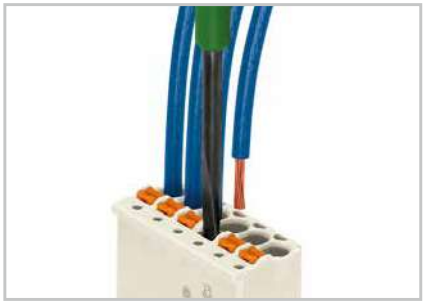
Color	Item No.	Pack. Unit
COMPACT splicing connector for all conductor types, with levers, max. continuous operating temperature: 105 °C		
2-conductor connector		
◯ transparent	**221-412**	1000(10x100)
3-conductor connector		
◯ transparent	**221-413**	500(10x50)
5-conductor connector		
◯ transparent	**221-415**	400(10x40)
Mounting carrier, for 2-, 3- and 5-conductor splicing connectors		
●	**221-500**	50(5x10)
Strain relief plate, for mounting carrier		
●	**222-505**	50(5x10)
Angled DIN-rail adapter, for DIN-35 rail mounting		
●	**222-510**	50(5x10)
Self-adhesive marking strips, plain 48 strips per card		
◯	**210-334**	1

Color	Item No.	Pack. Unit
CLASSIC splicing connector for all conductor types, with levers, max. continuous operating temperature: 85 °C		
2-conductor connector		
● gray	**222-412**	500(10x50)
3-conductor connector		
● gray	**222-413**	500(10x50)
5-conductor connector		
● gray	**222-415**	400(10x40)
Mounting carrier, for 2-, 3- and 5-conductor splicing connectors		
●	**222-500**	50(5x10)
Strain relief plate, for mounting carrier		
●	**222-505**	50(5x10)
Angled DIN-rail adapter, for DIN-35 rail mounting		
●	**222-510**	50(5x10)
Self-adhesive marking strips, plain 48 strips per card		
◯	**210-334**	1

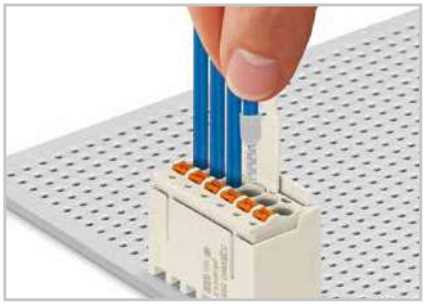
For technical explanations and abbreviations, see technical section.

* In grounded power lines

picoMAX® Pluggable Connectors – Description and Installation –



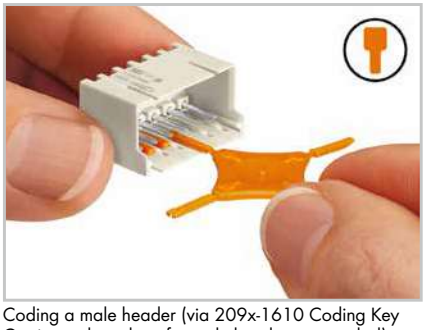
Inserting a fine-stranded conductor into an unmated female connector via push-button.



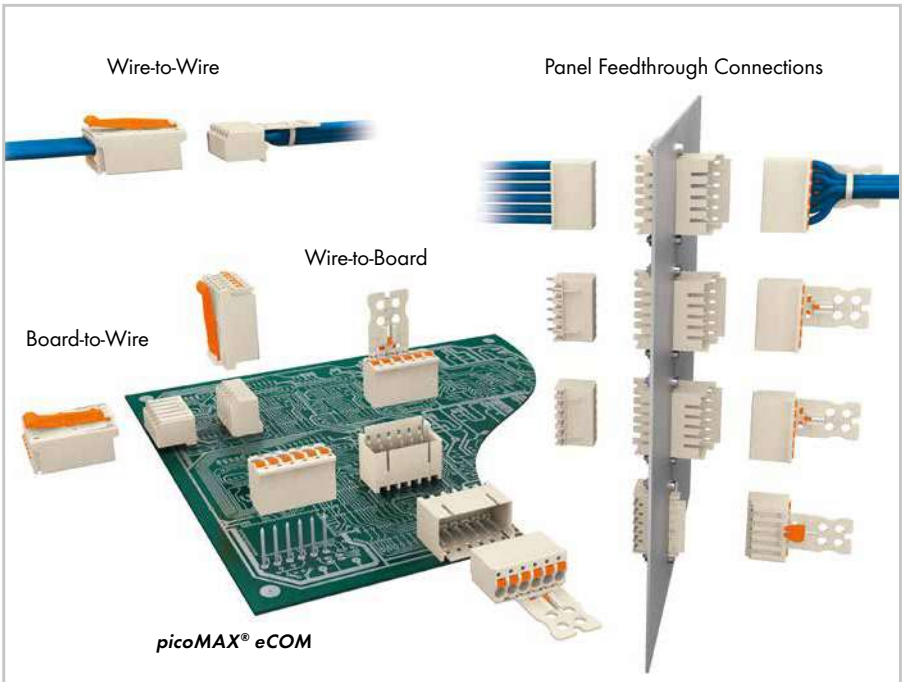
Inserting solid and ferruled conductors via push-in termination.



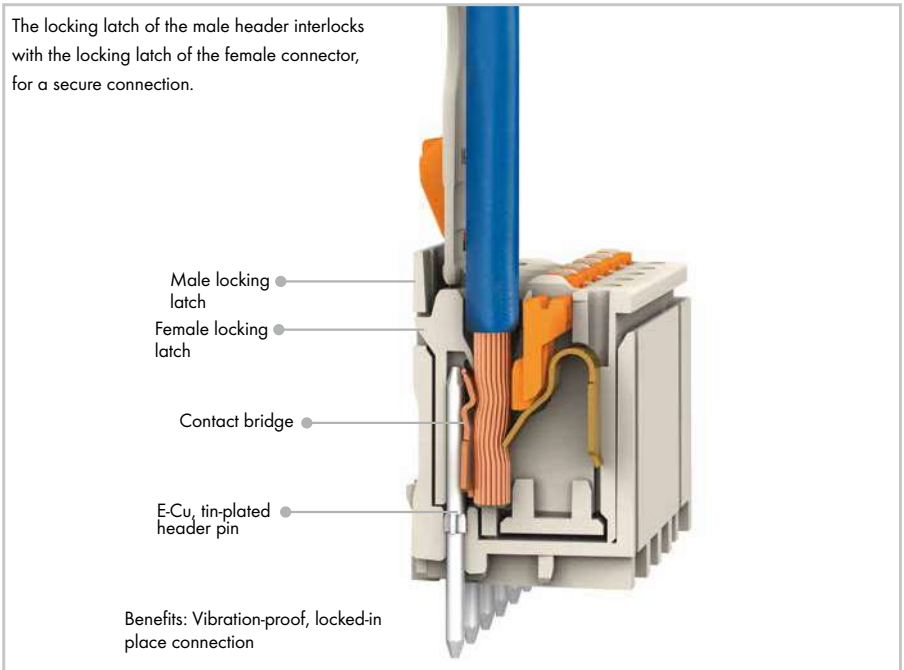
Coding a female connector (via 209x-1610 Coding Key Carrier and two keys for female connector, see symbol).



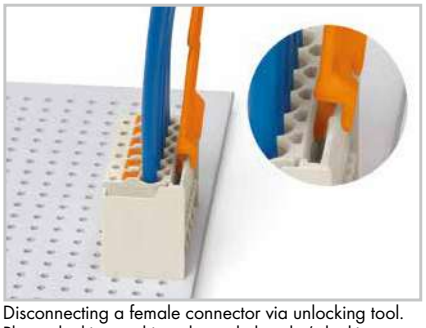
Coding a male header (via 209x-1610 Coding Key Carrier and two keys for male header, see symbol).



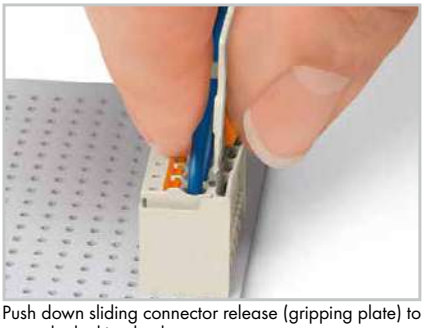
The locking latch of the male header interlocks with the locking latch of the female connector, for a secure connection.



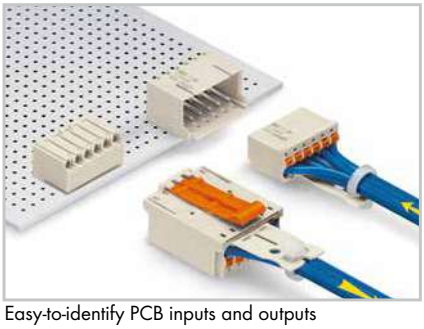
Benefits: Vibration-proof, locked-in place connection



Disconnecting a female connector via unlocking tool. Plug unlocking tool into the male header's locking latch.



Push down sliding connector release (gripping plate) to open the locking latch.



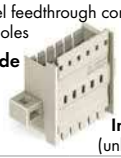
Easy-to-identify PCB inputs and outputs

PUSH-IN CAGE CLAMP®

picoMAX® Pluggable Connectors
Combination Overview for Male and Female Connectors/Headers

Pin Spacing: 3.5 mm (0.138 in.); 5.0 mm (0.197 in.); 7.5 mm (0.295 in.)

Male Connectors/Headers

	Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
	with straight solder pins, 2 ... 12 poles 		with angled solder pins, 2 ... 12 poles 		for conductor connection, 2 ... 5 poles 		for panel feedthrough connections, 2 ... 8 poles 	
					0.2 ... 2.5 mm² / 24 ... 12 AWG			
	2091-1402	200	**2091-1422**	200	**2091-1522/002-000**	200	**2091-1632/024-000**	100
	2091-1412	100	**2091-1432**	100	**2091-1528/002-000**	50	**2091-1638/002-000**	50

Female Connectors/Headers

for conductor connection, gripping plate and sliding connector release, 2 ... 12 poles 	✓		✓		✓		outside ✓	inside ✓
0.2 ... 1.5 mm² / 24 ... 14 AWG								
2091-1102/002-000	100							
2091-1112/002-000	50							
for conductor connection, with gripping plate, 2 ... 12 poles 	✓		✓		✓		outside ✓	inside ✓
0.2 ... 1.5 mm² / 24 ... 14 AWG								
2091-1102	200							
2091-1112	100							
for conductor connection, 2 ... 12 poles 	✓		✓		✓		outside ✓	inside ✓
0.2 ... 1.5 mm² / 24 ... 14 AWG								
2091-1122	200							
2091-1132	100							
with straight solder pins, 2 ... 8 poles 	✗		✗		✓		outside ✗	inside ✓
2091-1302	200							
2091-1308	100							
with angled solder pins, 2 ... 8 poles 	✗		✗		✓		outside ✗	inside ✓
2091-1322	200							
2091-1328	100							

All data refers to 3.5 mm pin spacing.

Item numbers for:

3.5 mm pin spacing	2091**-1**xxx (160 V/10 A)
5 mm pin spacing	2092**-1**xxx (320 V/16 A)
7.5 mm pin spacing	2092**-3**xxx (630 V/16 A)

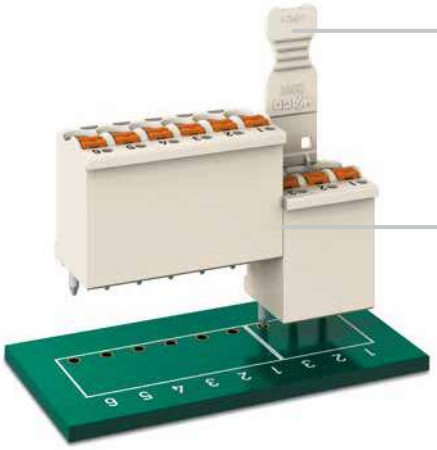
Disconnection: Open locking latches via unlocking tool (2092-1630).

This combination of male and female connectors/headers is allowed.

This combination of male and female connectors/headers is not allowed.

picoMAX® *eCOM* Pluggable Connectors
PCB Terminal Blocks that Double as Pluggable Connectors

1. Place and solder the pluggable female headers as marked on the PCB.



Optional gripping plate

Assemble female headers of different lengths without pole loss.

WAGO's *picoMAX*® eCOM Pluggable Female Headers are delivered with solder pins so they can be directly soldered to a PCB and then wired just as terminal blocks are.
Push-in CAGE CLAMP® allows solid, stranded and fine-stranded conductors to be terminated via push-buttons. Solid and ferruled conductors are terminated by simply pushing them into unit. For simplified maintenance, the pluggable female headers can be removed without altering the wiring and then plugged onto the replacement PCB.

2. Wired female headers



Gripping plate with cable tie

3. During maintenance



Remove the female header, replace the PCB if required, then re-plug the header.

PUSH-IN CAGE CLAMP®

picoMAX® *eCOM* Pluggable Connectors
System Overview for Standard Female Headers

Pin Spacing: 3.5 mm (0.138 in.); 5.0 mm (0.197 in.); 7.5 mm (0.295 in.)

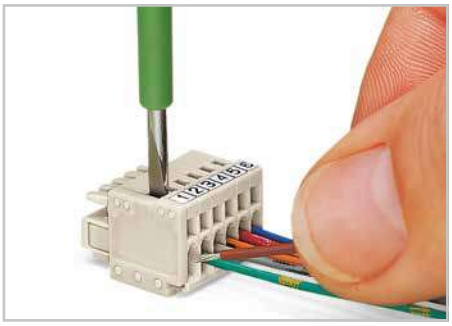
Female Connectors/Headers	Pin Spacing / Pole No. 3.5 mm / 2 ... 12 poles		5 mm / 2 ... 12 poles		7.5 mm / 2 ... 5 poles	
	Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
With straight solder pins, without gripping plate	 0.2 ... 1.5 mm² / 24 ... 14 AWG		 0.2 ... 2.5 mm² / 24 ... 14 AWG		 0.2 ... 2.5 mm² / 24 ... 14 AWG	
	2091-1172	200	**2092-1172**	200	**2092-3172**	100
	2091-1182	100	**2092-1182**	100	**2092-3175**	100
With straight solder pins, with gripping plate	 0.2 ... 1.5 mm² / 24 ... 14 AWG		 0.2 ... 2.5 mm² / 24 ... 14 AWG		 0.2 ... 2.5 mm² / 24 ... 14 AWG	
	2091-1152	100	**2092-1152**	100	**2092-3152**	100
	2091-1162	50	**2092-1162**	50	**2092-3155**	100
With angled solder pins, without gripping plate	 0.2 ... 1.5 mm² / 24 ... 14 AWG		 0.2 ... 2.5 mm² / 24 ... 14 AWG		 0.2 ... 2.5 mm² / 24 ... 14 AWG	
	2091-1372	200	**2092-1372**	200	**2092-3372**	100
	2091-1382	100	**2092-1382**	100	**2092-3375**	100
With angled solder pins, with gripping plate	 0.2 ... 1.5 mm² / 24 ... 14 AWG		 0.2 ... 2.5 mm² / 24 ... 14 AWG		 0.2 ... 2.5 mm² / 24 ... 14 AWG	
	2091-1352	100	**2092-1352**	100	**2092-3352**	100
	2091-1362	50	**2092-1362**	50	**2092-3355**	100
Gripping plates for field assembly						
	2091-1600	100	**2092-1600**	100	**2092-3600**	100
	2091-1603	100	**2092-1603**	100	**2092-3603**	100
Gripping plates with sliding connector release for field assembly						
	2091-1600/002-000	100	**2092-1600/002-000**	100	**2092-3600/002-000**	100
	2091-1603/002-000	100	**2092-1603/002-000**	100	**2092-3603/002-000**	100

Accessories	
Item No.	Pack. Unit
Operating tool with a partially insulated shaft, type 1, (2.5 x 0.4) mm blade 	
210-719	1
Unlocking tool for female connectors without gripping plate or sliding connector release 	
2092-1630	100
Test pin, 1 mm Ø, with solder connection for test cable 	
735-500	1

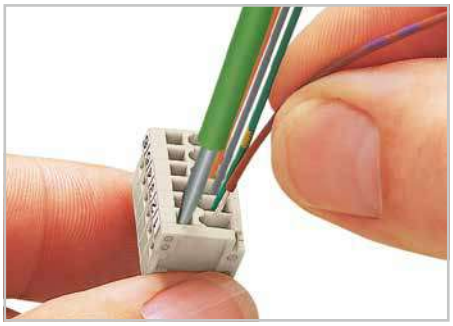
3

MCS – *MULTI CONNECTION SYSTEM* **MICRO, MINI and MIDI – Description and Installation**, e.g., for CAGE CLAMP® Connection* –

CAGE CLAMP® connection

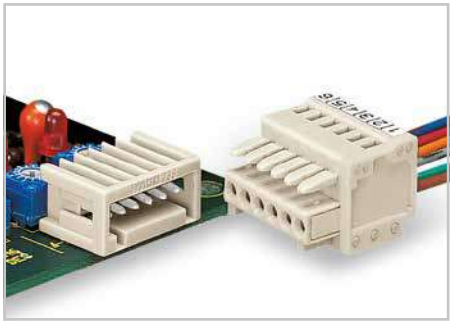


Inserting conductor via (2.5 x 0.4) mm screwdriver – CAGE CLAMP® actuation perpendicular to conductor entry.



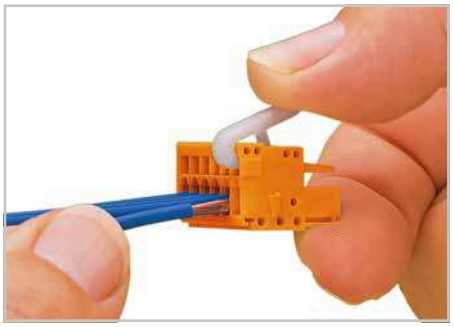
Inserting conductor via (2.5 x 0.4) mm screwdriver – CAGE CLAMP® actuation parallel to conductor entry.

Mismating protection

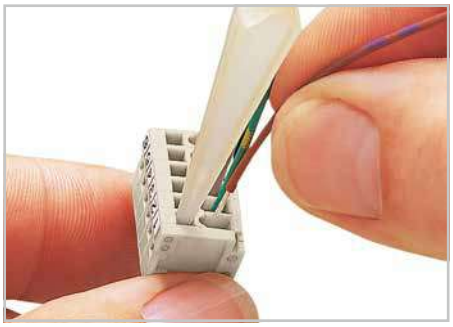


Male header and female connector – 100 % protected against mismating
Only mating halves with the same pole number can be connected.

CAGE CLAMP® connection

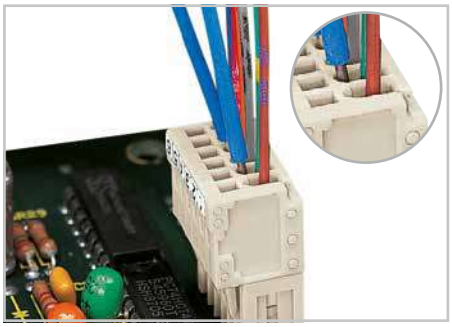


Inserting conductor via operating lever (734-230).



Inserting conductor via operating tool (233-332) – CAGE CLAMP® actuation parallel to conductor entry.

Testing



Testing with 1 mm Ø test pin (735-500) – touch contact.

Coding

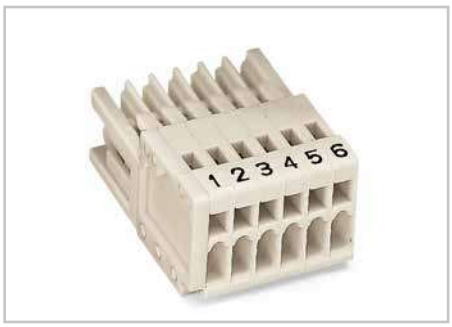


Coding a male header – fitting coding key(s).



Coding a female connector – removing coding finger(s).

Marking



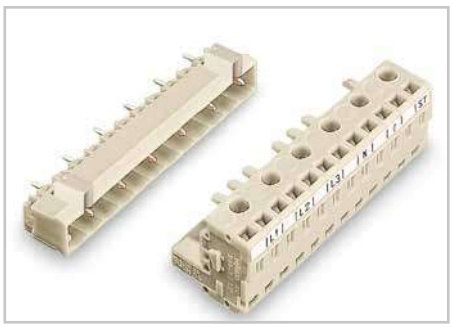
Factory marking or custom marking via self-adhesive strips.

Insulation stop



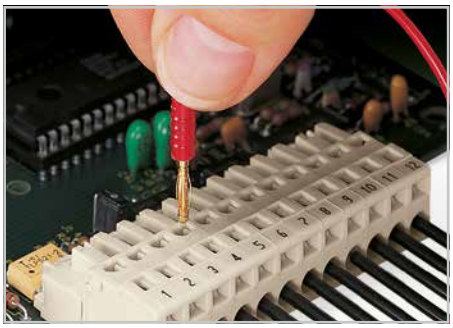
Prevents the insulation of smaller conductors from being inserted into the clamping unit.

Pin spacing: 10 mm



For 10 mm pin spacing, please contact factory.

Testing



Testing with 2 mm or 2.3 mm Ø test plug.

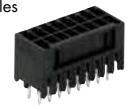
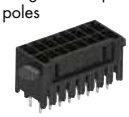
***For other connection types, see full line catalog or visit www.wago.com.**

MCS – *MULTI CONNECTION SYSTEM*
– Product Overview by Pin Spacing –

733 Series
2.5 mm MICRO , 100 % Mismating Protection, 160 V, 6 A

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Male headers with straight solder pins, 2 ... 12 poles 		Male headers with straight solder pins, 2 ... 12 poles 		Male headers with press-in pins, 2 ... 12 poles 		Female connectors, 2 ... 12 poles  0.08 ... **0.5 mm²** / 28 ... **20** AWG		Male connectors, 2 ... 12 poles  0.08 ... **0.5 mm²** / 28 ... **20** AWG	
733-332	200	**733-332/105-604**	200	**733-332/100-000**	200	**733-102**	200	**733-202**	200
733-342	100	**733-342/105-604**	100	**733-342/100-000**	100	**733-112**	50	**733-212**	50
Male headers with angled solder pins, 2 ... 12 poles 		Male headers with angled solder pins, 2 ... 12 poles 				Female connectors with locking levers, 2 ... 12 poles  0.08 ... **0.5 mm²** / 28 ... **20** AWG			
733-362	200	**733-362/105-604**	200			**733-102/037-000**	100		
733-372	100	**733-372/105-604**	100			**733-112/037-000**	50		

713 Series
3.5 mm MINI HD , 100 % Mismating Protection, 160 V, 10 A

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Male headers with straight solder pins, 6 ... 36 poles 		Male headers with angled solder pins, 6 ... 36 poles 		Male headers with straight solder pins, 6 ... 36 poles 		Male headers with angled solder pins, 6 ... 36 poles 		Female connectors, 6 ... 36 poles  0.08 ... **1.5 mm²** / 28 ... **16** AWG	
713-1403	100	**713-1423**	100	**713-1403/105-000**	100	**713-1423/105-000**	100	**713-1103**	100
713-1418	20	**713-1438**	20	**713-1418/105-000**	20	**713-1438/105-000**	20	**713-1118**	20
Male headers with straight solder pins and levers, 6 ... 36 poles 		Male headers with angled solder pins and levers, 6 ... 36 poles 		Male headers with straight solder pins and levers, 6 ... 36 poles 		Male headers with angled solder pins and levers, 6 ... 36 poles 		Female connectors with levers, 6 ... 36 poles  0.08 ... **1.5 mm²** / 28 ... **16** AWG	
713-1403/037-000	50	**713-1423/037-000**	50	**713-1403/116-000**	50	**713-1423/116-000**	50	**713-1103/037-000**	50
713-1418/037-000	10	**713-1438/037-000**	10	**713-1418/116-000**	10	**713-1438/116-000**	10	**713-1118/037-000**	51
Male headers with straight solder pins and threaded flanges, 6 ... 36 poles 		Male headers with angled solder pins and threaded flanges, 6 ... 36 poles 		Male headers with straight solder pins and threaded flanges, 6 ... 36 poles 		Male headers with angled solder pins and threaded flanges, 6 ... 36 poles 		Female connectors with threaded flanges, 6 ... 36 poles  0.08 ... **1.5 mm²** / 28 ... **16** AWG	
713-1403/107-000	50	**713-1423/107-000**	50	**713-1403/117-000**	50	**713-1423/117-000**	50	**713-1103/107-000**	50
713-1418/107-000	10	**713-1438/107-000**	10	**713-1418/117-000**	10	**713-1438/117-000**	10	**713-1118/107-000**	10

714 Series
3.5 mm MINI SL, 160 V, 8 A

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit				
Male headers with straight solder pins, 2 ... 16 poles 		Male headers with angled solder pins, 2 ... 16 poles 		Female connectors, 2 ... 16 poles  0.2 ... **1.5 mm²** / 24 ... **16** AWG					
714-132	200	**714-162**	200	**714-102**	200				
714-146	100	**714-176**	100	**714-116**	50				

Press-In Technology THR Through-Hole Reflow Soldering

MCS – *MULTI CONNECTION SYSTEM*
– Product Overview by Pin Spacing –

734 / 2734 Series
3.5 mm MINI, 100 % Mismating Protection

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Male headers with straight solder pins, 2 ... 24 poles 		Female headers with straight solder pins, 2 ... 24 poles 		Female connectors, 2 ... 24 poles  0.08 ... **1.5 mm²** / 28 ... **14** AWG		Male connectors, 2 ... 24 poles  0.08 ... **1.5 mm²** / 28 ... **14** AWG		Combi strips, 2 ... 12 poles  0.08 ... **1.5 mm²** / 28 ... **14** AWG	
734-132	200	**734-462**	200	**734-102**	200	**734-302**	200	**734-362**	100
734-154	50	**734-484**	25	**734-124**	25	**734-324**	25	**734-372**	25
Male headers with angled solder pins, 2 ... 24 poles 		Female headers with angled solder pins, 2 ... 24 poles 		Female connectors with locking levers, 2 ... 24 poles  0.08 ... **1.5 mm²** / 28 ... **14** AWG		Male connectors with mounting flanges, 2 ... 24 poles  0.08 ... **1.5 mm²** / 28 ... **14** AWG		Combi strips with locking levers, 2 ... 12 poles  0.08 ... **1.5 mm²** / 28 ... **14** AWG	
734-162	200	**734-532**	200	**734-102/037-000**	100	**734-302/019-000**	100	**734-362/037-000**	100
734-184	50	**734-554**	25	**734-124/037-000**	10	**734-324/019-000**	10	**734-372/037-000**	25
Male headers with straight solder pins, 2 ... 16 poles THR 		Female headers with straight solder pins and locking levers, 2 ... 24 poles 		Female connectors with snap-in mounting feet, 2 ... 24 poles  0.08 ... **1.5 mm²** / 28 ... **14** AWG		Male connectors with snap-in mounting feet, 2 ... 24 poles  0.08 ... **1.5 mm²** / 28 ... **14** AWG		Combi strips with snap-in mounting feet, 2 ... 12 poles  0.08 ... **1.5 mm²** / 28 ... **14** AWG	
734-132/105-604	200	**734-462/037-000**	100	**734-102/008-000**	200	**734-302/018-000**	200	**734-362/008-000**	100
734-146/105-604	50	**734-484/037-000**	10	**734-124/008-000**	25	**734-324/018-000**	25	**734-372/008-000**	25
Male headers with angled solder pins, 2 ... 16 poles THR 		Female headers with angled solder pins and locking levers, 2 ... 24 poles 							
734-162/105-604	200	**734-532/037-000**	100						
734-176/105-604	50	**734-554/037-000**	10						
Male headers with straight press-in pins, 2 ... 12 poles 								Female connectors with push-buttons, 2 ... 24 poles  0.2 ... **1.5 mm²** / 24 ... **14** AWG	
734-132/100-000	200							**2734-102**	200
734-142/100-000	100							**2734-124**	25
Double-deck male headers with angled solder pins, 4 ... 24 poles 								Female connectors with push-buttons and locking levers, 2 ... 24 poles  0.2 ... **1.5 mm²** / 24 ... **14** AWG	
734-402	100							**2734-102/037-000**	100
734-412	50							**2734-124/037-000**	10
Double-deck male headers with angled solder pins and support, 4 ... 24 poles 								Female connectors with push-buttons and mounting flanges, 2 ... 24 poles  0.2 ... **1.5 mm²** / 24 ... **14** AWG	
734-402/001-000	100							**2734-102/031-000**	100
734-412/001-000	50							**2734-124/031-000**	10
Male headers with straight solder pins and threaded flanges, 2 ... 24 poles 		Male headers with angled solder pins and threaded flanges, 2 ... 24 poles 		Female connectors with screw flanges, 2 ... 24 poles  0.08 ... **1.5 mm²** / 28 ... **14** AWG		Male connectors with threaded flanges, 2 ... 24 poles  0.08 ... **1.5 mm²** / 28 ... **14** AWG		Female connectors with push-buttons and screw flanges, 2 ... 24 poles  0.2 ... **1.5 mm²** / 24 ... **14** AWG	
734-132/108-000	200	**734-162/108-000**	200	**734-102/107-000**	100	**734-302/109-000**	100	**2734-102/107-000**	100
734-154/108-000	50	**734-184/108-000**	50	**734-124/107-000**	10	**734-324/109-000**	10	**2734-124/107-000**	10

MCS – *MULTI CONNECTION SYSTEM*
– Product Overview by Pin Spacing –

734 / 2734 Series

3.81 mm MINI, 100 % Mismating Protection

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Male headers with straight solder pins, 2 ... 20 poles 		Female headers with straight solder pins, 2 ... 20 poles 		Female connectors, 2 ... 20 poles  0.08 ... **1.5 mm²** / 28 ... **14** AWG		Male connectors, 2 ... 20 poles  0.08 ... **1.5 mm²** / 28 ... **14** AWG		Female connectors with push-buttons, 2 ... 20 poles  0.2 ... **1.5 mm²** / 24 ... **14** AWG	
734-232	200	**734-502**	200	**734-202**	200	**734-332**	200	**2734-202**	200
734-250	50	**734-520**	25	**734-220**	25	**734-350**	25	**2734-220**	25
Male headers with angled solder pins, 2 ... 20 poles 		Female headers with angled solder pins, 2 ... 20 poles 		Female connectors with locking levers, 2 ... 20 poles  0.08 ... **1.5 mm²** / 28 ... **14** AWG		Male connectors with mounting flanges, 2 ... 20 poles  0.08 ... **1.5 mm²** / 28 ... **14** AWG		Female connectors with push-buttons and locking levers, 2 ... 20 poles  0.2 ... **1.5 mm²** / 24 ... **14** AWG	
734-262	200	**734-562**	200	**734-202/037-000**	100	**734-332/019-000**	100	**2734-202/037-000**	100
734-280	50	**734-580**	25	**734-220/037-000**	10	**734-350/019-000**	10	**2734-220/037-000**	10
Male headers with straight solder pins, 2 ... 16 poles THR 		Female headers with straight solder pins and locking levers, 2 ... 20 poles 		Female connectors with snap-in mounting feet, 2 ... 20 poles  0.08 ... **1.5 mm²** / 28 ... **14** AWG		Male connectors with snap-in mounting feet, 2 ... 20 poles  0.08 ... **1.5 mm²** / 28 ... **14** AWG		Female connectors with push-buttons and mounting flanges, 2 ... 20 poles  0.2 ... **1.5 mm²** / 24 ... **14** AWG	
734-232/105-604	200	**734-502/037-000**	100	**734-202/008-000**	200	**734-332/018-000**	200	**2734-202/031-000**	100
734-242/105-604	100	**734-520/037-000**	10	**734-220/008-000**	25	**734-350/018-000**	25	**2734-220/031-000**	10
Male headers with angled solder pins, 2 ... 16 poles THR 		Female headers with angled solder pins and locking levers, 2 ... 20 poles 							
734-262/105-604	200	**734-562/037-000**	100						
734-272/105-604	100	**734-580/037-000**	10						
Male headers with straight press-in pins, 2 ... 12 poles 									
734-232/100-000	200								
734-242/100-000	100								
Double-deck male headers with angled solder pins, 4 ... 24 poles 									
734-432	100								
734-442	50								
Double-deck male headers with angled solder pins and support, 4 ... 24 poles 									
734-432/001-000	100								
734-442/001-000	50								

MCS – *MULTI CONNECTION SYSTEM*
– Product Overview by Pin Spacing –

721 / 722 / 2721 Series
5 mm MIDI, 100 % Mismating Protection, 320 V, 12 A (16 A)

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Male headers with straight solder pins, 2 ... 20 poles 		Female headers with straight solder pins, 2 ... 20 poles 		Female connectors, 2 ... 20 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors, 2 ... 20 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons, 2 ... 20 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
721-132/001-000	200	**722-132**	100	**721-102/026-000**	100	**721-602**	100	**2721-102/026-000**	100
721-150/001-000	50	**722-150**	10	**721-120/026-000**	10	**721-620**	10	**2721-120/026-000**	10
Male headers with angled solder pins, 2 ... 20 poles 		Female headers with angled solder pins, 2 ... 20 poles 		Female connectors with locking levers, 2 ... 20 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors with mounting flanges, 2 ... 20 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons and locking levers, 2 ... 20 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
721-432/001-000	200	**722-232**	100	**721-102/037-000**	100	**721-602/019-000**	100	**2721-102/037-000**	100
721-450/001-000	50	**722-250**	10	**721-120/037-000**	10	**721-620/019-000**	10	**2721-120/037-000**	10
Male headers with straight press-in pins, **8 A**, 2 ... 12 poles 		Female headers with straight solder pins and locking levers, 2 ... 20 poles 		Female connectors with snap-in mounting feet, 2 ... 20 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors with snap-in mounting feet, 2 ... 20 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons and snap-in mounting feet, 2 ... 20 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
721-162/100-000	200	**722-132/039-000**	100	**721-102/008-000**	100	**721-602/018-000**	100	**2721-102/008-000**	100
721-172/100-000	100	**722-150/039-000**	10	**721-120/008-000**	10	**721-620/018-000**	10	**2721-120/008-000**	10
Male headers with straight solder pins, **16 A**, 2 ... 20 poles 		Female headers with angled solder pins and locking levers, 2 ... 20 poles 		Female connectors with mounting flanges, 2 ... 20 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors with snap-in flanges, 2 ... 20 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons and mounting flanges, 2 ... 20 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
721-162/001-000	200	**722-232/039-000**	100	**721-102/031-000**	100	**721-602/114-000**	100	**2721-102/031-000**	100
721-180/001-000	**50**	**722-250/039-000**	10	**721-120/031-000**	10	**721-620/114-000**	10	**2721-120/031-000**	10
Male headers with angled solder pins, **16 A**, 2 ... 20 poles 		Female headers with straight solder pins and mounting flanges, 2 ... 20 poles 		Angled female connectors, conductor entry same direction as latches, 2 ... 20 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG					
721-462/001-000	200	**722-132/031-000**	100	**722-202/026-000**	100				
721-480/001-000	50	**722-150/031-000**	10	**722-220/026-000**	10				
Male connectors for rail-mounted terminal blocks, 2 ... 20 poles 		Female headers with angled solder pins and mounting flanges, 2 ... 20 poles 		Angled female connectors, conductor entry opposite of latches, 2 ... 20 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG					
721-162/003-000	200	**722-232/031-000**	100	**722-102/026-000**	100				
721-180/003-000	50	**722-250/031-000**	10	**722-120/026-000**	10				
Female connectors for rail-mounted terminal blocks, 2 ... 20 poles 		Female headers with straight solder pins and spacers, 2 ... 20 poles 		2-conductor female connectors, 2 ... 16 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG				Female connectors with flanges for panel mounting, 2 ... 20 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG	
722-132/005-000	100	**722-132/047-000**	100	**721-2102/026-000**	100			**721-302/031-000**	100
722-150/005-000	10	**722-150/047-000**	10	**721-2116/026-000**	25			**721-320/031-000**	10
Female connectors with locking levers for rail-mounted terminal blocks, 2 ... 20 poles 		Female headers with angled solder pins and spacers, 2 ... 20 poles 		2-conductor female connectors with locking levers, 2 ... 16 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG				Female connectors with snap-in feet for panel mounting, 2 ... 20 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG	
722-132/005-000/039-000	100	**722-232/047-000**	100	**721-2102/037-000**	100			**721-302/008-000**	100
722-150/005-000/039-000	10	**722-250/047-000**	10	**721-2116/037-000**	10			**721-320/008-000**	10

MCS – *MULTI CONNECTION SYSTEM*
– Product Overview by Pin Spacing –

231 / 232 / 731 / 2231 Series
5 mm, MIDI Classic, 320 V, 12 A

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Male headers with straight solder pins, 2 ... 24 poles 		Female headers with straight solder pins, 2 ... 24 poles 		Female connectors, 2 ... 24 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors, 2 ... 24 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons, 2 ... 24 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
231-132/001-000	200	**232-132**	100	**231-102/026-000**	100	**231-602**	100	**2231-102/026-000**	100
231-154/001-000	50	**232-154**	10	**231-124/026-000**	10	**231-624**	**10**	**2231-124/026-000**	10
Male headers with angled solder pins, 2 ... 24 poles 		Female headers with angled solder pins, 2 ... 24 poles 		Female connectors with locking levers, 2 ... 24 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors with mounting flanges, 2 ... 24 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons and locking levers, 2 ... 24 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
231-432/001-000	200	**232-232**	100	**231-102/037-000**	100	**231-602/019-000**	100	**2231-102/037-000**	100
231-454/001-000	50	**232-254**	10	**231-124/037-000**	10	**231-624/019-000**	10	**2231-124/037-000**	10
Male headers with straight solder pins and mounting flanges, 2 ... 14 poles 		Female headers with straight solder pins and locking levers, 2 ... 24 poles 		Female connectors with snap-in mounting feet, 2 ... 24 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors with snap-in mounting feet, 2 ... 24 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons and snap-in mounting feet, 2 ... 24 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
231-132/040-000	200	**232-132/039-000**	100	**231-102/008-000**	100	**231-602/018-000**	100	**2231-102/008-000**	100
231-144/040-000	50	**232-154/039-000**	10	**231-124/008-000**	10	**231-624/018-000**	10	**2231-124/008-000**	10
Male headers with angled solder pins and mounting flanges, 2 ... 14 poles 		Female headers with angled solder pins and locking levers, 2 ... 24 poles 		Female connectors with mounting flanges, 2 ... 24 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors with snap-in flanges, 2 ... 24 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons and mounting flanges, 2 ... 24 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
231-432/040-000	200	**232-232/039-000**	100	**231-102/031-000**	100	**231-602/114-000**	50	**2231-102/031-000**	100
231-444/040-000	50	**232-254/039-000**	10	**231-124/031-000**	10	**231-624/114-000**	10	**2231-124/031-000**	10
Male headers with straight solder pins, 2 ... 12 poles THR 		Female headers with straight solder pins and mounting flanges, 2 ... 24 poles 		Angled female connectors, conductor entry same direction as latches, 2 ... 24 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG				Female connectors with push-buttons and integrated end plate, 2 ... 24 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
231-132/001-000/105-604	200	**232-132/031-000**	100	**232-202/026-000**	100			**2231-102/102-000**	100
231-142/001-000/105-604	100	**232-154/031-000**	10	**232-224/026-000**	10			**2231-124/102-000**	10
Male headers with angled solder pins, 2 ... 12 poles THR 		Female headers with angled solder pins and mounting flanges, 2 ... 24 poles 		Angled female connectors, conductor entry opposite of latches, 2 ... 24 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG				Double-pin male connectors for DIN-35 rail mounting, 2 ... 24 poles 	
231-432/001-000/105-604	200	**232-232/031-000**	100	**232-102/026-000**	100			**232-502/007-000**	100
231-442/001-000/105-604	100	**232-254/031-000**	10	**232-124/026-000**	10			**232-524/007-000**	10
Double-deck male headers, 2 ... 16 poles 				2-conductor female connectors, 2 ... 16 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG				Female connectors with mounting flanges for panel mounting, 2 ... 20 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG	
232-332	100			**231-2102/026-000**	100			**731-502/031-000**	100
232-346	25			**231-2116/026-000**	25			**731-520/031-000**	10
Male connectors for rail-mounted terminal blocks, 2 ... 20 poles 		Female connectors for rail-mounted terminal blocks, 2 ... 20 poles 		2-conductor female connectors with locking levers, 2 ... 16 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG				Female connectors with snap-in feet for panel mounting, 2 ... 20 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG	
231-162/003-000	200	**232-132/005-000**	100	**231-2102/037-000**	100			**731-502/008-000**	100
231-180/003-000	50	**232-150/005-000**	10	**231-2116/037-000**	10			**731-520/008-000**	10

MCS – *MULTI CONNECTION SYSTEM*
– Product Overview by Pin Spacing –

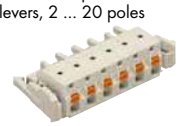
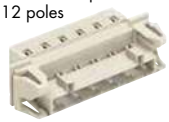
231 / 232 / 731 / 2231 Series
5.08 mm MIDI Classic, 320 V, 12 A (16 A)

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Male headers with straight solder pins, 2 ... 24 poles 		Female headers with straight solder pins, 2 ... 24 poles 		Female connectors, 2 ... 24 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors, 2 ... 24 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons, 2 ... 24 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
231-332/001-000	200	**232-162**	100	**231-302/026-000**	100	**231-632**	100	**2231-302/026-000**	100
231-354/001-000	50	**232-184**	10	**231-324/026-000**	10	**231-654**	10	**2231-324/026-000**	10
Male headers with angled solder pins, 2 ... 24 poles 		Female headers with angled solder pins, 2 ... 24 poles 		Female connectors with locking levers, 2 ... 24 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors with mounting flanges, 2 ... 24 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons and locking levers, 2 ... 24 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
231-532/001-000	200	**232-262**	100	**231-302/037-000**	100	**231-632/019-000**	100	**2231-302/037-000**	100
231-554/001-000	50	**232-284**	10	**231-324/037-000**	10	**231-654/019-000**	10	**2231-324/037-000**	10
Male headers with straight solder pins, **16 A**, 2 ... 24 poles 		Female headers with straight solder pins and locking levers, 2 ... 24 poles 		Female connectors with snap-in mounting feet, 2 ... 24 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors with snap-in mounting feet, 2 ... 24 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons and snap-in mounting feet, 2 ... 24 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
231-362/001-000	200	**232-162/039-000**	100	**231-302/008-000**	100	**231-632/018-000**	100	**2231-302/008-000**	100
231-384/001-000	50	**232-184/039-000**	10	**231-324/008-000**	10	**231-654/018-000**	10	**2231-324/008-000**	10
Male headers with angled solder pins, **16 A**, 2 ... 24 poles 		Female headers with angled solder pins and locking levers, 2 ... 24 poles 		Female connectors with mounting flanges, 2 ... 24 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors with snap-in flanges, 2 ... 24 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons and mounting flanges, 2 ... 24 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
231-562/001-000	200	**232-262/039-000**	100	**231-302/031-000**	100	**231-632/114-000**	50	**2231-302/031-000**	100
231-584/001-000	50	**232-284/039-000**	10	**231-324/031-000**	10	**231-654/114-000**	10	**2231-324/031-000**	10
Double-deck male headers, 2 ... 16 poles 		Female headers with straight solder pins and mounting flanges, 2 ... 24 poles 		2-conductor female connectors, 2 ... 16 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG				Angled female connectors, conductor entry same direction as latches, 2 ... 24 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG	
232-362	100	**232-162/031-000**	100	**231-2302/026-000**	100			**232-402/026-000**	100
232-376	25	**232-184/031-000**	10	**231-2316/026-000**	25			**232-424/026-000**	10
		Female headers with angled solder pins and mounting flanges, 2 ... 24 poles 		2-conductor female connectors with locking levers, 2 ... 16 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG				Angled female connectors, conductor entry opposite of latches, 2 ... 24 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG	
		232-262/031-000	100	**231-2302/037-000**	100			**232-302/026-000**	100
		232-284/031-000	10	**231-2316/037-000**	10			**232-324/026-000**	10
Male headers with straight solder pins and threaded flanges, 2 ... 16 poles 				2-conductor female connectors with screw flanges, 2 ... 16 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG		Male connectors with snap-in and threaded flanges, 2 ... 16 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Double-pin male connectors for DIN-35 rail mounting, 2 ... 24 poles 	
231-332/108-000	200			**231-2302/107-000**	100	**231-632/129-000**	50	**232-532/007-000**	100
231-346/108-000	50			**231-2316/107-000**	10	**231-646/129-000**	10	**232-554/007-000**	10
Male headers with angled solder pins and threaded flanges, 2 ... 16 poles 				Female connectors with screw flanges, 2 ... 16 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors with threaded flanges, 2 ... 16 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons and screw flanges, 2 ... 24 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
231-532/108-000	200			**231-302/107-000**	100	**231-632/109-000**	100	**2231-302/107-000**	100
231-546/108-000	50			**231-316/107-000**	10	**231-646/109-000**	10	**2231-316/107-000**	10

MCS – *MULTI CONNECTION SYSTEM*
– Product Overview by Pin Spacing –

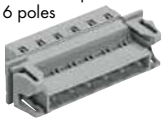
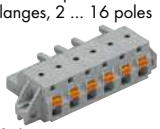
721 / 722 / 723 / 2721 Series

7.5 mm MIDI, 100 % Mismating Protection, 630 V, 12 A (16 A)

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Male headers with straight solder pins, 2 ... 12 poles 		Female headers with straight solder pins, 2 ... 12 poles 		Female connectors, 2 ... 12 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors, 2 ... 12 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons, 2 ... 12 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
721-232/001-000	200	**722-732**	100	**721-202/026-000**	100	**723-602**	100	**2721-202/026-000**	100
721-242/001-000	50	**722-742**	10	**721-212/026-000**	25	**723-612**	25	**2721-212/026-000**	25
Male headers with angled solder pins, 2 ... 12 poles 		Female headers with angled solder pins, 2 ... 12 poles 		Female connectors with locking levers, 2 ... 12 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors with mounting flanges, 2 ... 12 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons and locking levers, 2 ... 20 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
721-832/001-000	200	**722-832**	100	**721-202/037-000**	50	**723-602/019-000**	100	**2721-202/037-000**	50
721-842/001-000	50	**722-842**	10	**721-212/037-000**	10	**723-612/019-000**	25	**2721-212/037-000**	10
Male headers with straight solder pins, **16 A**, 2 ... 12 poles 		Female headers with straight solder pins and locking levers, 2 ... 12 poles 		Female connectors with snap-in mounting feet, 2 ... 12 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors with snap-in mounting feet, 2 ... 12 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons and snap-in mounting feet, 2 ... 12 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
721-262/001-000	200	**722-732/039-000**	100	**721-202/008-000**	50	**723-602/018-000**	100	**2721-202/008-000**	100
721-272/001-000	50	**722-742/039-000**	10	**721-212/008-000**	10	**723-612/018-000**	25	**2721-212/008-000**	25
Male headers with angled solder pins, **16 A**, 2 ... 12 poles 		Female headers with angled solder pins and locking levers, 2 ... 12 poles 		Female connectors with mounting flanges, 2 ... 12 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors with snap-in flanges, 2 ... 12 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons and mounting flanges, 4 ... 12 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
721-862/001-000	200	**722-832/039-000**	100	**721-202/031-000**	50	**723-602/114-000**	100	**2721-202/031-000**	50
721-872/001-000	50	**722-842/039-000**	10	**721-212/031-000**	10	**723-612/114-000**	25	**2721-212/031-000**	10
		Female headers with straight solder pins and mounting flanges, 2 ... 12 poles 		2-conductor female connectors, 2 ... 16 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG					
		722-732/031-000	100	**721-2202/026-000**	100				
		722-742/031-000	10	**721-2212/026-000**	25				
		Female headers with angled solder pins and mounting flanges, 2 ... 12 poles 		2-conductor female connectors with locking levers, 2 ... 16 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG					
		722-832/031-000	100	**721-2202/037-000**	100				
		722-842/031-000	10	**721-2212/037-000**	25				
		Female headers with straight solder pins and spacers, 2 ... 12 poles 						Female connectors with flanges for panel mounting, 2 ... 12 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG	
		722-732/047-000	100					**721-332/031-000**	50
		722-742/047-000	10					**721-342/031-000**	10
		Female headers with angled solder pins and spacers, 2 ... 12 poles 						Female connectors with snap-in feet for panel mounting, 2 ... 12 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG	
		722-832/047-000	100					**721-332/008-000**	100
		722-842/047-000	10					**721-342/008-000**	25

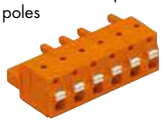
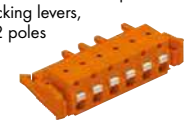
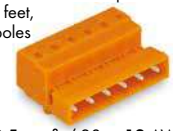
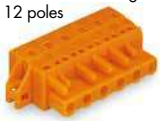
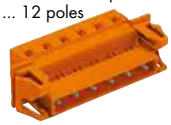
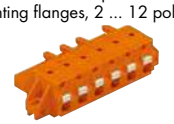
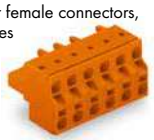
MCS – *MULTI CONNECTION SYSTEM*
– Product Overview by Pin Spacing –

231 / 232 / 731 / 732 / 2231 Series
7.5 mm MIDI Classic, 100 % Mismating Protection, 630 V, 12 A (16 A)

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Male headers with straight solder pins, 2 ... 16 poles 		Female headers with straight solder pins, 2 ... 16 poles 		Female connectors, 2 ... 16 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors, 2 ... 16 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons, 2 ... 16 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
231-232/001-000	200	**232-732**	100	**231-202/026-000**	100	**731-602**	100	**2231-202/026-000**	100
231-246/001-000	50	**232-746**	10	**231-216/026-000**	10	**731-616**	10	**2231-216/026-000**	10
Male headers with angled solder pins, 2 ... 16 poles 		Female headers with angled solder pins, 2 ... 16 poles 		Female connectors with locking levers, 2 ... 16 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors with mounting flanges, 2 ... 16 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons and locking levers, 2 ... 16 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
231-832/001-000	200	**232-832**	100	**231-202/037-000**	50	**731-602/019-000**	100	**2231-202/037-000**	50
231-846/001-000	50	**232-846**	10	**231-216/037-000**	10	**731-616/019-000**	10	**2231-216/037-000**	10
Male headers with straight solder pins, **16 A**, 2 ... 16 poles 		Female headers with straight solder pins and locking levers, 2 ... 16 poles 		Female connectors with snap-in mounting feet, 2 ... 16 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors with snap-in mounting feet, 2 ... 16 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons and snap-in mounting feet, 2 ... 16 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
231-262/001-000	200	**232-732/039-000**	100	**231-202/008-000**	100	**731-602/018-000**	100	**2231-202/008-000**	100
231-276/001-000	50	**232-746/039-000**	10	**231-216/008-000**	10	**731-616/018-000**	10	**2231-216/008-000**	10
Male headers with angled solder pins, **16 A**, 2 ... 16 poles 		Female headers with angled solder pins and locking levers, 2 ... 16 poles 		Female connectors with mounting flanges, 2 ... 16 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors with snap-in flanges, 2 ... 16 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons and mounting flanges, 2 ... 16 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
231-862/001-000	200	**232-832/039-000**	100	**231-202/031-000**	50	**731-602/114-000**	50	**2231-202/031-000**	50
231-876/001-000	50	**232-846/039-000**	10	**231-216/031-000**	10	**731-616/114-000**	10	**2231-216/031-000**	10
Male headers with straight solder pins, 2 ... 12 poles 		Female headers with straight solder pins and mounting flanges, 2 ... 16 poles 		2-conductor female connectors, 2 ... 12 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG					
231-232/001-000/105-604	200	**232-732/031-000**	100	**231-2202/026-000**	100				
231-242/001-000/105-604	50	**232-746/031-000**	10	**231-2212/026-000**	25				
Male headers with angled solder pins, 2 ... 12 poles 		Female headers with angled solder pins and mounting flanges, 2 ... 16 poles 		2-conductor female connectors with locking levers, 2 ... 12 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG				Double-pin male connectors for DIN-35 rail mounting, 2 ... 12 poles 	
231-832/001-000/105-604	200	**232-832/031-000**	100	**231-2202/037-000**	100			**232-562/007-000**	50
231-842/001-000/105-604	50	**232-846/031-000**	10	**231-2212/037-000**	25			**232-572/007-000**	10
Male headers with straight solder pins, **16 A**, 2 ... 12 poles 		Female headers with straight solder pins and spacers, 2 ... 16 poles 						Angled female connectors with mounting flanges, 2 ... 24 poles 	
231-262/001-000/105-604	200	**232-732/047-000**	100					**731-532/031-000**	50
231-272/001-000/105-604	50	**232-746/047-000**	10					**731-546/031-000**	10
Male headers with angled solder pins, **16 A**, 2 ... 12 poles 		Female headers with angled solder pins and spacers, 2 ... 16 poles 						Angled female connectors with snap-in mounting feet, 2 ... 12 poles 	
231-862/001-000/105-604	200	**232-832/047-000**	100					**731-532/008-000**	100
231-872/001-000/105-604	50	**232-846/047-000**	10					**731-546/008-000**	10

MCS – *MULTI CONNECTION SYSTEM*
– Product Overview by Pin Spacing –

231 / 232 / 731 / 2231 Series
7.62 mm MIDI Classic, 100 % Mismating Protection, 630 V, 12 A (16 A)

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Male headers with straight solder pins, 2 ... 12 poles 		Female headers with straight solder pins, 2 ... 12 poles 		Female connectors, 2 ... 12 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors, 2 ... 12 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons, 2 ... 12 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
231-732/001-000	200	**232-762**	100	**231-702/026-000**	100	**731-632**	50	**2231-702/026-000**	100
231-742/001-000	50	**232-772**	10	**231-712/026-000**	10	**731-642**	10	**2231-712/026-000**	10
Male headers with angled solder pins, 2 ... 12 poles 		Female headers with angled solder pins, 2 ... 12 poles 		Female connectors with locking levers, 2 ... 12 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors with mounting flanges, 2 ... 12 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons and locking levers, 2 ... 12 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
231-932/001-000	200	**232-862**	100	**231-702/037-000**	50	**731-632/019-000**	50	**2231-702/037-000**	50
231-942/001-000	50	**232-872**	10	**231-712/037-000**	10	**731-642/019-000**	10	**2231-712/037-000**	10
Male headers with straight solder pins, **16 A**, 2 ... 12 poles 		Female headers with straight solder pins and locking levers, 2 ... 12 poles 		Female connectors with snap-in mounting feet, 2 ... 12 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors with snap-in mounting feet, 2 ... 12 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons and snap-in mounting feet, 2 ... 12 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
231-762/001-000	200	**232-762/039-000**	100	**231-702/008-000**	100	**731-632/018-000**	100	**2231-702/008-000**	100
231-772/001-000	50	**232-772/039-000**	10	**231-712/008-000**	10	**731-642/018-000**	10	**2231-712/008-000**	10
Male headers with angled solder pins, **16 A**, 2 ... 12 poles 		Female headers with angled solder pins and locking levers, 2 ... 12 poles 		Female connectors with mounting flanges, 2 ... 12 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Male connectors with snap-in flanges, 2 ... 12 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG		Female connectors with push-buttons and mounting flanges, 2 ... 12 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG	
231-962/001-000	200	**232-862/039-000**	100	**231-702/031-000**	50	**731-632/114-000**	50	**2231-702/031-000**	50
231-972/001-000	50	**232-872/039-000**	10	**231-712/031-000**	10	**731-646/114-000**	10	**2231-712/031-000**	10
		Female headers with straight solder pins and mounting flanges, 2 ... 12 poles 		2-conductor female connectors, 2 ... 12 poles  0.2 ... **2.5 mm²** / 24 ... **12** AWG		Double-pin male connectors for DIN-35 rail mounting, 2 ... 12 poles 		Angled female connectors, conductor entry opposite of latches, 2 ... 12 poles  0.08 ... **2.5 mm²** / 28 ... **12** AWG	
		232-762/031-000	100	**231-2702/026-000**	100	**232-582/007-000**	50	**732-122/026-000**	100
		232-772/031-000	10	**231-2712/026-000**	25	**232-592/007-000**	10	**732-132/026-000**	25

831 Series
7.62 mm MAXI, 100 % Mismating Protection, 1,000 V, 41 A

Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Male headers with straight solder pins, 2 ... 9 poles 				Female connectors, 2 ... 9 poles  0.5 ... **10 mm²** / 20 ... **8** AWG		Male connectors, 2 ... 9 poles  0.5 ... **10 mm²** / 20 ... **8** AWG		Male connectors with integrated mounting adapter for DIN-35 rail, 2 ... 9 poles  0.5 ... **10 mm²** / 20 ... **8** AWG	
831-3602	48			**831-3102**	48	**831-3202**	48	**831-3202/007-000**	48
831-3609	12			**831-3109**	12	**831-3209**	12	**831-3209/007-000**	12
Male headers with angled solder pins, 2 ... 9 poles 				Female connectors with locking levers, 2 ... 9 poles  0.5 ... **10 mm²** / 20 ... **8** AWG					
831-3622	48			**831-3102/037-000**	48				
831-3629	12			**831-3109/037-000**	12				

CAGE CLAMP®

MCS – *MULTI CONNECTION SYSTEM* **MIDI Classic**
Multi Mounting Adapter, Strain Relief Housings, Accessories

Multi mounting adapter
for male and female connectors
with snap-in mounting feet

Adapter width: 10 mm/0.394 in.

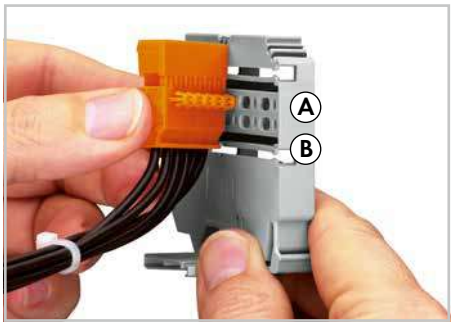
Snap-on type strain relief housings for:
– female connectors with CAGE CLAMP®
– male connectors with CAGE CLAMP®

Accessories





Color	Item No.	Pack. Unit
Multi mounting adapter		
○	**209-148**	25



If either the male or the female connector is equipped with mounting feet and mounted on the adapter via its oblong holes or open grooves (A/B), but the mating half is not, then the connection remains pluggable.



The adapter can be marked either with WMB or miniature WSB markers.



Pole No.	Item No.	Item No.	Pack. Unit
Snap-on type strain relief housing, consists of strain relief support and housing,			
for 734 Series			
	3.5 mm pin spacing light gray	3.81 mm pin spacing orange	
2	○ **734-602** ❶	● **734-632** ❶	50
3	○ **734-603** ❶	● **734-633** ❶	25
:	:	:	
6	○ **734-606**	● **734-636**	25
7	○ **734-607**	–	25
8	○ **734-608**	● **734-638**	25
9	○ **734-609**	● **734-639**	25
10	○ **734-610**	● **734-640**	25
12	○ **734-612**	● **734-642**	25
for 231 and 721 Series			
	5 mm pin spacing	5.08 mm pin spacing	
2	○ **232-602**	● **232-632**	25
3	○ **232-603**	● **232-633**	25
:	:	:	
6	○ **232-606**	● **232-636**	25
7	○ **232-607**	–	25
8	○ **232-608**	● **232-638**	25
9	○ **232-609**	● **232-639**	25
10	○ **232-610**	● **232-640**	25
12	○ **232-612**	● **232-642**	25
for 231, 721 and 731 Series			
	7.5 mm pin spacing	7.62 mm pin spacing	
2	○ **232-662** ❷	● **232-682** ❷	25
3	○ **232-663** ❷	● **232-683** ❷	25
4	○ **232-664**	● **232-684**	25
5	○ **232-665**	● **232-685**	25
7	○ **232-667**	● **232-687**	25

Cable clamp, for strain relief **209-177** 25



Pole no.:	Pin spacing (mm):
6 ... 12 poles	3.5 + 3.81
4 ... 6 poles	5 + 5.08
3 poles	7.5 + 7.62

Cable clamp, for strain relief **209-174** 25

7 or more poles	5 + 5.08
5 or more poles	7.5 + 7.62

Fixing screw, for cable clamp **209-176** 50



Pole no.:	Pin spacing (mm):
4 ... 6 poles	5 + 5.08
3 poles	7.5 + 7.62

Fixing screw, for cable clamp **209-172** 50

6 ... 12 poles	3.5 + 3.81

Fixing screw, for cable clamp **209-173** 50

7 or more poles	5 + 5.08
5 or more poles	7.5 + 7.62

	Color	Item No.	Pack. Unit
Test plug, with 500 mm cable			
	● 2 mm Ø	**210-136**	50
	● 2.3 mm Ø	**210-137**	50
Test plug adapter, for female connectors, light gray			
	5/5.08 mm pin spacing		
	○	**231-661**	100
	7.5/7.62 mm pin spacing		
	○	**231-662**	100
Fixing element			
	●	**231-193**	100
	●	**231-391**	100
Screw with nut, M 2 x 12,			
	for fixing element		
		231-195	100
Mounting adapter			
	●	**209-137**	1
Spacer, for male connectors			
	○	**231-500**	200
Lockout cap			
	●	**231-668**	500
	●	**231-669**	500
Operating tool with a partially insulated shaft,			
	type 1, (2.5 x 0.4) mm blade		
		210-719	1
	type 2, (3.5 x 0.5) mm blade		
		210-720	1
Operating tool, for male and female connectors equipped with CAGE CLAMP® connection			
	MINI/MIDI	**210-250**	1
	MINI/MICRO	**210-251**	1
Comb-style jumper bar, for 5/5.08 mm pin spacing			
	2-way	**231-902**	200
	3-way	**231-903**	100
	5-way	**231-905**	100
	7-way	**231-907**	100
	10-way	**231-910**	100
Marking strip, 100 self-adhesive strips			
	**2.5 mm pin spacing**		
	1...16 (400 x)	210-331/250-202	
	3.5 mm pin spacing		
	1...16 (240 x)	210-332/350-202	
	3.81 mm pin spacing		
	1...16 (160 x)	210-332/381-202	
	5 mm pin spacing		
	1...12 (300 x)	210-331/500-103	
	5.08 mm pin spacing		
	1...16 (200 x)	210-331/508-103	
	7.5 mm pin spacing		
	1...16 (100 x)	210-331/750-202	
	7.62 mm pin spacing		
	1...16 (100 x)	210-331/762-202	

❶ 2 ... 5 poles only suitable for cable ties (734 Series) ❷ 2 ... 3 poles only suitable for cable ties (231, 721 and 731 Series)

MCS – MULTI CONNECTION SYSTEM MINI and MIDI Accessories

	733 Series Pin Spacing: 2.5 mm			734 Series Pin Spacing: 3.5 mm			231 / 721 / 722 Series Pin Spacing: 5 mm			Pin Spacing: 7.5 mm		
	Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit	Color	Item No.	Pack. Unit
Coding keys for male connectors 	○ ●	**733-330** **733-331**	100 100	○ ● ○	**734-130** **734-159** **734-400**	100 100 100	○ ○	**231-129** **231-160**	100 100	○	**231-130**	100
Insulation stops 	–			○	**734-671**	8x25	○ ○ ○	**231-670** **231-671** **231-672**	200 200 200	○ ○ ○	**231-673** **231-674** **231-675**	200 200 200
Operating levers 	○ ○	**733-130** **733-191**	4x25 4x25	○ ●	**734-230** **734-191**	4x25 4x25	○ ○	**231-131** **231-291**	4x25 4x25	○ ○	**231-131** **231-291**	4x25 4x25
Operating tools 	○ ○	**233-332** **233-331**	25 25	○ ●	**734-190** **734-231**	4x25 4x25	○ ○	**231-159** **231-231**	4x25 4x25	○ ○	**231-159** **231-231**	4x25 4x25

3

Field-Assembled Strain Relief Plates for Female Connectors

	Pin Spacing	Pole No.	Width	Color/Item No.	Pack. Unit	Pole No.	Pin Spacing	
	2.5 mm	2 ... 4	6 mm	○ **734-127** ○ **734-327** ○ **734-227**	4x25	2 ... 3	3.5 / 3.81 mm	
		5 ... 9	12.5 mm	○ **734-128** ○ **734-328** ○ **734-228**	4x25	4 ... 8		
		10 ... 12	25 mm	○ **734-129** ○ **734-329** ○ **734-229**	4x25	9 ... 12		
		–	35 mm	○ **734-126** ○ **734-326** ○ **734-226**	4x25	13 ...16		
		–	55 mm	○ **734-426** ○ **734-430** ○ **734-428**	2x25	17 ... max.		
	5 / 5.08 mm	2	6 mm	○ **734-127** ○ **734-327** ○ **734-227**	4x25	–	7.5 / 7.62 mm	
		3 ... 4	12.5 mm	○ **734-128** ○ **734-328** ○ **734-228**	4x25	2 ... 3		
		5 ... 7	25 mm	○ **734-129** ○ **734-329** ○ **734-229**	4x25	4 ... 6		
		8 ... 11	35 mm	○ **734-126** ○ **734-326** ○ **734-226**	4x25	7 ... 9		
		12 ... 16	55 mm	○ **734-426** ○ **734-430** ○ **734-428**	2x25	10 ... 12		
		17 ... 24	75 mm	○ **734-427** ○ **734-431** ○ **734-429**	2x25	13 ... 16		

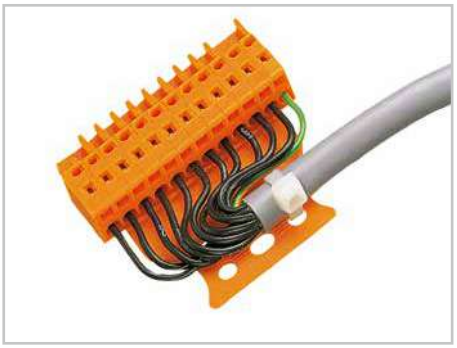
Factory-Assembled Strain Relief Plates for Female Connectors

Item No. Suffix	733 Series, Pin Spacing: 2.5 mm Pole No.	713 Series, Pin Spacing: 3.5 mm Pole No.	734 Series, Pin Spacing: 3.5 / 3.81 mm Pole No.	231 / 721 Series, Pin Spacing: 5 / 5.08 mm Pole No.	231 / 721 Series, Pin Spacing: 7.5 / 7.62 mm Pole No.
.../032-000	2 ... 4	6 ... 12	2 ... 3	2 ... 3	2
.../033-000	5 ... 9	14 ... 20	4 ... 8	4 ... 5	3 ... 5
.../034-000	10 ... 12	22 ... 28	9 ... 12	6 ... 9	6 ... 7
.../035-000	–	30 ... 36	13 ... 16	10 ... 24	8 ... 16
.../036-000	–	–	17 ... max.	–	–

Item No. Suffix	2721 / 2231 / 721 Series and 2-Conductor Female Connectors, Pin Spacing: 5 / 5.08 mm Pole No.	2721 / 2231 / 721 Series and 2-Conductor Female Connectors, Pin Spacing: 7.5 / 7.62 mm Pole No.
.../132-000	2	–
.../133-000	3 ... 4	2 ... 3
.../134-000	5 ... 7	4 ... 6
.../135-000	8 ... 11	7 ... 9
.../136-000	12 ... 16	10 ... 12
.../137-000	17 ... 24	13 ... 16



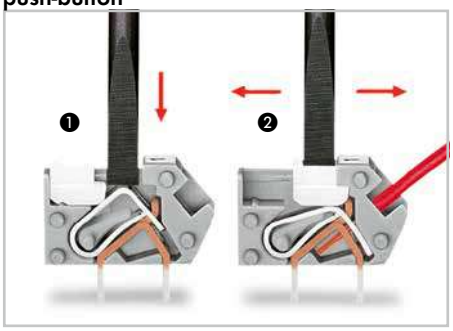




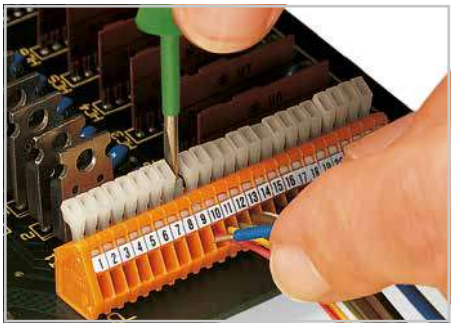
Sample order:
Angled female connector with strain relief plate, 7.62 mm pin spacing, 5-pole, orange: **732-125/026-000/033-000**

PCB Terminal Strips
– Description and Installation –

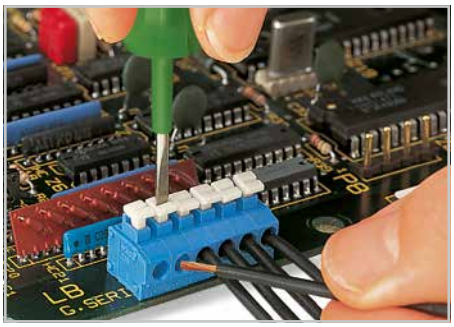
Actuation with locking slide/lever/ push-button



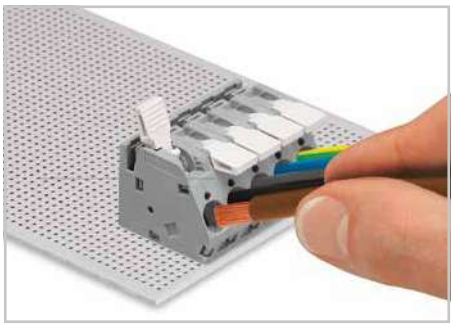
Conductor termination: ❶ To momentarily open the clamping unit, use screwdriver and then insert stripped conductor. ❷ To open clamping unit for extended period, move locking slide toward conductor entry hole. Then fully insert stripped conductor and move locking slide back to original position (also possible to perform with fingernail).



Inserting/removing conductor.

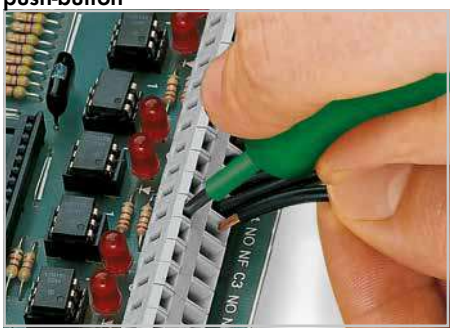


Inserting/removing fine-stranded conductor via push-button.

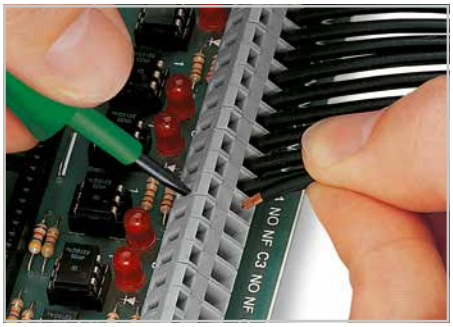


Inserting/removing conductor – 2706 and 2716 Series.

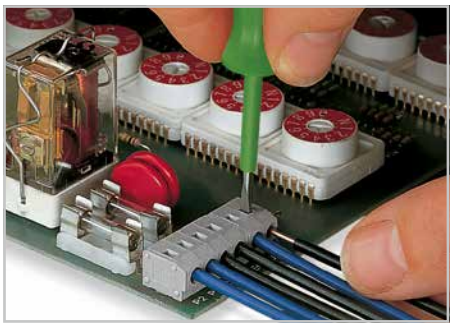
Actuation without locking slide/lever/ push-button



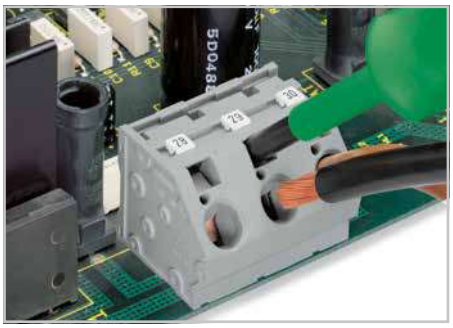
Inserting conductor via screwdriver (3.5 mm blade): Conductor entry and clamp operation are parallel.



Inserting conductor via screwdriver (3.5 mm blade): Conductor entry and clamp operation are perpendicular.

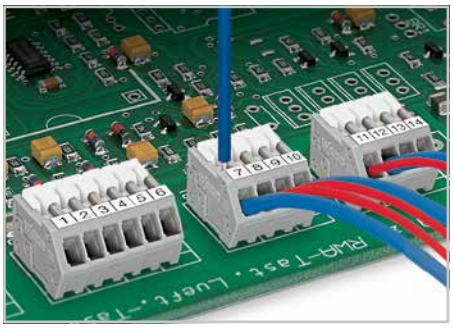


Removing conductor using a screwdriver – terminal strip without push-buttons.

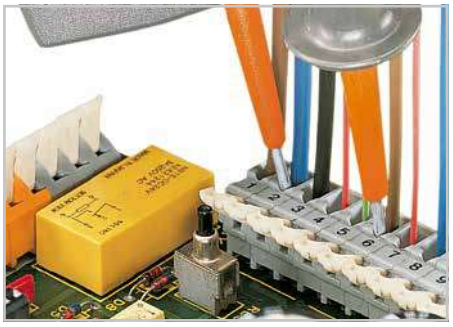


Inserting conductor via screwdriver (5.5 mm blade).

Testing



Inserting/removing conductor.

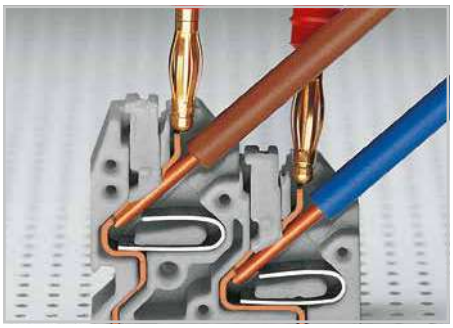


Testing with test probes.



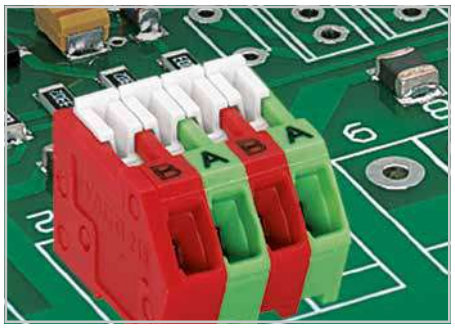
Inserting/removing conductor via finger-operated lever – 257 Series.

For terminal strips with finger-operated levers, see Full Line Catalog.



Testing with 2 mm Ø test plug.

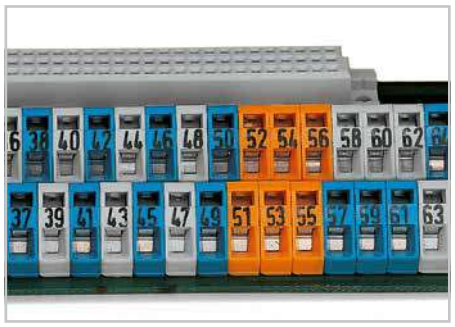
Marking



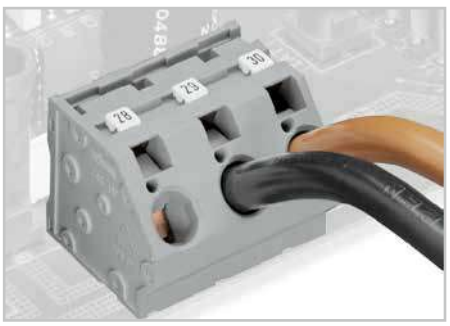
Factory direct marking.



Marking via self-adhesive marking strips (above) or factory direct marking.



Mixed-color terminal strips with factory direct marking

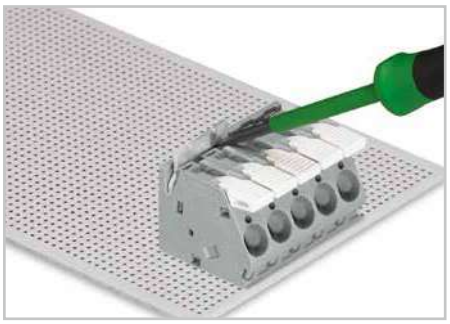


Marking via miniature WSB and WMB markers or factory direct marking – 745 Series.

Commoning



Insert the comb-style jumper bar.



Push jumper bar down firmly using a screwdriver until it hits the backstop – 2706 and 2716 Series.



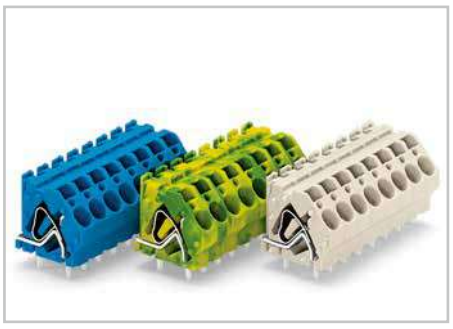
Custom terminal strips are available upon request.



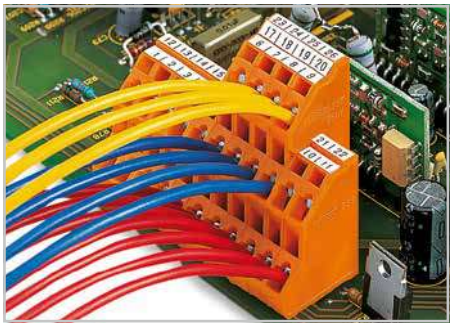
Horizontal commoning:
Connection of adjacent terminals

Note: Interruption of horizontal commoning reduces spacing to the adjacent solder pins.

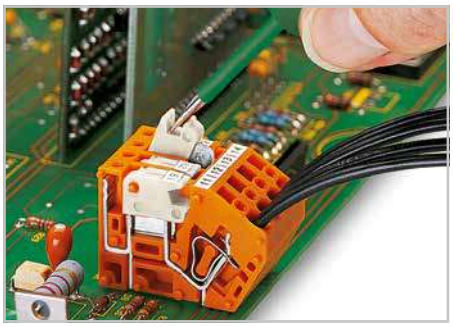
Specialty functions



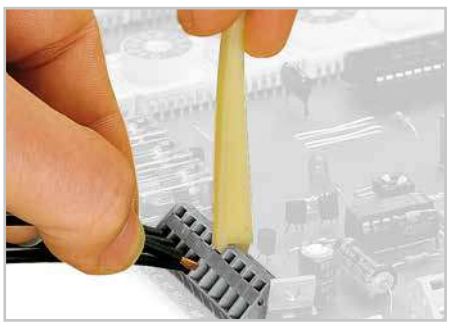
For terminal strips in other colors, please contact factory.



Space-saving triple-deck terminal strip



Opening knife disconnect.



Inserting conductor via operating tool.

PCB Terminal Blocks

– Product Overview by Pin Spacing –

Colors available:

- green-yellow
- gray
- dark gray
- light gray
- white
- orange
- light green
- black
- blue
- red
- yellow
- brown
- green
- violet
- pink

Ex e II approval

Press-in technology

THR Through-hole reflow soldering

SMT Surface-mount technology

3.5 Only available in this pin spacing

2.5 mm

Item No.	Pack. Unit
233 Series, 2 ... 24 poles, 160 V / 6 A	
0.08 ... 0.5 mm² / 28 ... 20 AWG	
233-102	600
233-124	80
233 Series, 2 ... 24 poles, 160 V / 6 A	
0.08 ... 0.5 mm² / 28 ... 20 AWG	
233-202	600
233-224	80
234 Series, 2 ... 24 poles, 160 V / 6 A	
0.08 ... 0.5 mm² / 28 ... 20 AWG	
234-202	600
234-224	80
250 Series, 2 ... 24 poles, 160 V / 4 A	
0.2 ... 0.5 mm² / 24 ... 20 AWG	
250-402	720
250-424	60
250 Series, 2 ... 8 poles, 160 V / 4 A THR	
0.2 ... 0.5 mm² / 24 ... 20 AWG	
250-402/350-604	720
250-408/350-604	220
218 Series, 2 ... 24 poles, 160 V / 6 A	
0.08 ... 0.5 mm² / 28 ... 20 AWG	
218-102	1000
218-124	60
218 Series, 2 ... 7 poles, 160 V / 6 A THR	
0.08 ... 0.5 mm² / 28 ... 20 AWG	
218-102/000-604	1000
218-107/000-604	240

2.54 mm

Item No.	Pack. Unit
233 Series, 2 ... 24 poles, 160 V / 6 A	
0.08 ... 0.5 mm² / 28 ... 20 AWG	
233-402	600
233-424	80
233 Series, 2 ... 24 poles, 160 V / 6 A	
0.08 ... 0.5 mm² / 28 ... 20 AWG	
233-502	600
233-524	80
234 Series, 2 ... 24 poles, 160 V / 6 A	
0.08 ... 0.5 mm² / 28 ... 20 AWG	
234-502	600
234-524	80
250 Series, 2 ... 24 poles, 160 V / 4 A	
0.2 ... 0.5 mm² / 24 ... 20 AWG	
250-1402	720
250-1424	60
218 Series, 2 ... 24 poles, 160 V / 6 A	
0.08 ... 0.5 mm² / 28 ... 20 AWG	
218-502	1000
218-524	60
218 Series, 2 ... 7 poles, 160 V / 6 A THR	
0.08 ... 0.5 mm² / 28 ... 20 AWG	
218-502/000-604	1000
218-507/000-604	240

3.5 mm

Item No.	Pack. Unit
739 Series, 2 ... 12 poles, 160 V / 17.5 A	
0.08 ... 1.5 mm² / 28 ... 14 AWG	
739-302	560
739-312	100
805 Series, 2 ... 24 poles, 320 V / 17.5 A	
0.2 ... 1.5 mm² / 24 ... 16 AWG	
805-102	580
805-124	40
805 Series, 2 ... 8 poles, 320 V / 17.5 A THR	
0.2 ... 1.5 mm² / 24 ... 16 AWG	
805-302/200-604	600
805-308/200-604	160
250 Series, 2 ... 24 poles, 160 V / 8 A	
0.2 ... 1.5 mm² / 24 ... 16 AWG	
250-102	560
250-124	40
250 Series, 2 ... 8 poles, 320 V / 8 A THR	
0.2 ... 1.5 mm² / 24 ... 16 AWG	
250-202/353-604	560
250-208/353-604	160
739 Series, 3 ... 12 poles, 160 V / 4 A	
0.08 ... 1.5 mm² / 28 ... 14 AWG	
739-303/100-000	400
739-312/100-000	100
744 Series, 2 ... 10 poles, 320 V / 2 A	
0.5 ... 1.5 mm² / 20 ... 16 AWG "s"	
744-292	1000
744-210	200
251 Series, 2 ... 7 poles 320 V / 2 A (6 A)	
0.5 ... 1.5 mm² / 20 ... 16 AWG "s"	
251-102	600
251-107	180

3.81 mm

Item No.	Pack. Unit
739 Series, 2 ... 12 poles, 320 V / 17.5 A	
0.08 ... 1.5 mm² / 28 ... 14 AWG	
739-332	520
739-342	100
235 Series, 2 ... 48 poles, 320 V / 17.5 A	
0.5 ... 1.5 mm² / 20 ... 16 AWG	
235-101	520
235-148	20
235 Series, 2 ... 48 poles, 320 V / 17.5 A	
0.5 ... 1.5 mm² / 20 ... 16 AWG "s"	
235-101/330-000	520
235-148/330-000	20
735 Series, 2 ... 7 poles, 320 V / 10 A	
0.5 ... 1.5 mm² / 20 ... 16 AWG "s"	
735-122	660
735-127	180
739 Series, 3 ... 12 poles, 160 V / 4 A	
0.08 ... 1.5 mm² / 28 ... 14 AWG	
739-333/100-000	360
739-342/100-000	100

PCB Terminal Blocks

– Product Overview by Pin Spacing –

5 mm

Item No.	Pack. Unit
236 Series, 2 ... 48 poles, 320 V / 24 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
236-101	420
236-148	20
736 Series, 2 x 2 ... 24 x 2 poles, 320 V / 21 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
736-102	161
736-124	14
737 Series, 2 x 3 ... 24 x 3 poles, 320 V / 21 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
737-102	92
737-124	8
738 Series, 2 x 4 ... 24 x 4 poles, 320 V / 18 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
738-102	72
738-124	6
255 Series, 2 ... 48 poles, 320 V / 24 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
255-401	400
255-448	20
256 Series, 2 ... 48 poles, 320 V / 24 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
256-401	400
256-448	20
257 Series, 2 ... 48 poles, 320 V / 24 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
257-401	400
257-448	20
739 Series, 2 ... 24 poles, 320 V / 24 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
739-102	400
739-124	20

Item No.	Pack. Unit
236 Series, 2 ... 6 poles, 320 V / 24 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
236-402/334-604	420
236-406/334-604	140
740 Series, 2 ... 24 poles, 320 V / 16 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
740-102	460
740-124	40
253 Series, 2 ... 16 poles, 320 V / 17.5 A	
0.5 ... 1.5 mm² / 20 ... 16 AWG "s"	
253-102	400
253-116	40
250 Series, 2 ... 16 poles, 320 V / 17.5 A	
0.5 ... 1.5 mm² / 20 ... 16 AWG	
250-502	400
250-516	40
250 Series, 2 ... 24 poles, 320 V / 10 A	
0.5 ... 1.5 mm² / 20 ... 16 AWG	
250-702	264
250-724	24
816 Series, 2 ... 12 poles, 320 V / 14 A	
2 x 0.2 ... 1.5 mm² / 2 x 24 ... 16 AWG	
816-102	400
816-112	60
254 Series, 2 ... 48 poles, 320 V / 24 A	
0.5 ... 2.5 mm² / 20 ... 12 AWG "s"	
254-451	420
254-498	20
804 Series, 2 ... 16 poles, 320 V / 24 A	
0.25 ... 2.5 mm² / 20 ... 12 AWG	
804-102	420
804-116	60

Item No.	Pack. Unit
742 Series, 1 ... 3 conductors, 320 V / 16 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
742-101	384
742-153	100
742 Series, 1-/2-conductor, 320 V / 16 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
742-121	300
742-178	200
742 Series, 1 ... 3 conductors, 320 V / 15 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
742-111	300
742-163	100
741 Series, 2 ... 16 poles, 320 V / 16 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
741-102	400
741-116	40
735 Series, 2 ... 7 poles, 320 V / 10 A	
0.5 ... 1.5 mm² / 20 ... 16 AWG "s"	
735-302	500
735-307	140
235 Series, 2 ... 48 poles, 320 V / 24 A	
0.5 ... 2.5 mm² / 20 ... 14 AWG "s"	
235-402	421
235-448	20
745 Series, 2 ... 12 poles, 320 V / 32 A	
0.08 ... 4 mm² / 28 ... 12 AWG	
745-3102	276
745-3112	48
745 Series, 2 ... 12 poles, 320 V / 32 A	
0.08 ... 4 mm² / 28 ... 12 AWG	
745-102	230
745-112	40

5.08 mm

Item No.	Pack. Unit
236 Series, 2 ... 48 poles, 320 V / 24 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
236-101	420
236-148	20
736 Series, 2 x 2 ... 24 x 2 poles, 320 V / 21 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
736-302	161
736-324	14
737 Series, 2 x 3 ... 24 x 3 poles, 320 V / 21 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
737-302	92
737-324	8
738 Series, 2 x 4 ... 24 x 4 poles, 320 V / 18 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
738-302	72
738-324	6
255 Series, 2 ... 48 poles, 320 V / 24 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
255-401	400
255-448	20
256 Series, 2 ... 48 poles, 320 V / 24 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
256-401	400
256-448	20
257 Series, 2 ... 48 poles, 320 V / 24 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
257-401	400
257-448	20
739 Series, 2 ... 24 poles, 320 V / 24 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
739-152	400
739-174	20

Item No.	Pack. Unit
742 Series, 1 ... 3 conductors, 320 V / 16 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
742-106	384
742-158	100
742 Series, 1-/2-conductor, 320 V / 16 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
742-126	300
742-176	200
742 Series, 1 ... 3 conductors, 320 V / 15 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
742-116	300
742-168	100
741 Series, 2 ... 16 poles, 320 V / 16 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
741-202	400
741-216	40
235 Series, 2 ... 48 poles, 320 V / 24 A	
0.5 ... 2.5 mm² / 20 ... 14 AWG "s"	
235-401	420
235-448	20
254 Series, 2 ... 48 poles, 320 V / 24 A	
0.5 ... 2.5 mm² / 20 ... 12 AWG "s"	
254-451	420
254-498	20
739 Series, 3 ... 12 poles, 320 V / 8 A	
0.08 ... 1.5 mm² / 28 ... 14 AWG	
739-153/100-000	360
739-162/100-000	100

4

PCB Terminal Blocks

– Product Overview by Pin Spacing –

7.5 mm

Item No.	Pack. Unit
236 Series, 2 ... 24 poles, 630 V / 24 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
236-201	280
236-224	20
736 Series, 2 x 2 ... 16 x 2 poles, 630 V / 21 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
736-502	133
736-516	14
737 Series, 2 x 3 ... 16 x 3 poles, 630 V / 21 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
737-502	76
737-516	8
255 Series, 2 ... 24 poles, 630 V / 24 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
255-501	280
255-524	20
256 Series, 2 ... 24 poles, 320 V / 24 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
256-501	280
256-524	20
257 Series, 2 ... 24 poles, 630 V / 24 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
257-501	280
257-524	20
739 Series, 2 ... 12 poles, 630 V / 24 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
739-202	340
739-212	40
739 Series, 3 ... 12 poles, 630 V / 8 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
739-203/100-000	220
739-212/100-000	40

Item No.	Pack. Unit
235 Series, 2 ... 24 poles, 630 V / 17.5 A	
0.5 ... 1.5 mm² / 20 ... 14 AWG	
235-501/331-000	280
235-524/331-000	20
235 Series, 2 ... 24 poles, 630 V / 24 A	
0.5 ... 2.5 mm² / 20 ... 14 AWG "s"	
235-501	280
235-524	20
254 Series, 2 ... 24 poles, 630 V / 24 A	
0.5 ... 2.5 mm² / 20 ... 12 AWG "s"	
254-551	280
254-574	20
741 Series, 2 ... 10 poles, 630 V / 16 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
741-302	340
741-310	60
250 Series, 2 ... 12 poles, 630 V / 17.5 A	
0.5 ... 1.5 mm² / 20 ... 16 AWG	
250-602	340
250-612	40
804 Series, 2 ... 12 poles, 320 V / 24 A	
0.25 ... 2.5 mm² / 20 ... 12 AWG	
804-302	340
804-312	40

Item No.	Pack. Unit
745 Series, 2 ... 12 poles, 630 V / 32 A	
0.08 ... 4 mm² / 28 ... 12 AWG	
745-3152	228
745-3162	36
745 Series, 2 ... 12 poles, 630 V / 32 A	
0.08 ... 4 mm² / 28 ... 12 AWG	
745-152	180
745-162	30
745 Series, 2 ... 12 poles, 630 V / 41 A	
0.2 ... 6 mm² / 24 ... 10 AWG	
745-302	128
745-312	16
2706 Series, 2 ... 12 poles, 630 V / 41 A	
0.5 ... 6 mm² / 20 ... 10 AWG	
2706-102	85
2706-112	15
2706 Series, 2 ... 12 poles, 630 V / 41 A	
0.5 ... 6 mm² / 20 ... 10 AWG	
2706-152	85
2706-162	15
746 Series, 2 ... 12 poles, 1,000 V / 50 A	
2 x 0.5 ... 10 mm² / 2 x 20 ... 8 AWG	
746-2302	60
746-2312	16

7.62 mm

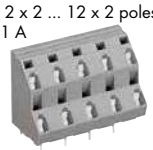
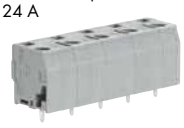
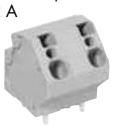
Item No.	Pack. Unit
236 Series, 2 ... 24 poles, 630 V / 24 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
236-201	280
236-224	20
736 Series, 2 x 2 ... 16 x 2 poles, 630 V / 21 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
736-602	133
736-616	14
737 Series, 2 x 3 ... 16 x 3 poles, 630 V / 21 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
737-602	76
737-616	8
255 Series, 2 ... 24 poles, 630 V / 24 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
255-501	280
255-524	20
256 Series, 2 ... 24 poles, 320 V / 24 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
256-501	280
256-524	20
257 Series, 2 ... 24 poles, 630 V / 24 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
257-501	280
257-524	20
739 Series, 2 ... 12 poles, 630 V / 24 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
739-232	340
739-242	40
739 Series, 3 ... 12 poles, 630 V / 8 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
739-233/100-000	220
739-242/100-000	40

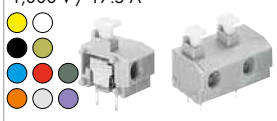
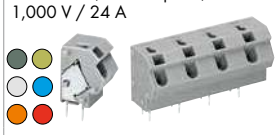
Item No.	Pack. Unit
235 Series, 2 ... 24 poles, 630 V / 17.5 A	
0.5 ... 1.5 mm² / 20 ... 14 AWG	
235-501/331-000	280
235-524/331-000	20
235 Series, 2 ... 24 poles, 630 V / 24 A	
0.5 ... 2.5 mm² / 20 ... 14 AWG "s"	
235-501	280
235-524	20
254 Series, 2 ... 24 poles, 630 V / 24 A	
0.5 ... 2.5 mm² / 20 ... 12 AWG "s"	
254-551	280
254-574	20
741 Series, 2 ... 10 poles, 630 V / 16 A	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
741-402	320
741-410	60

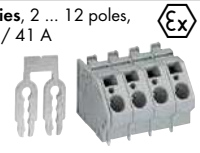
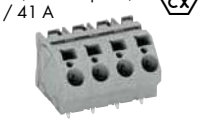
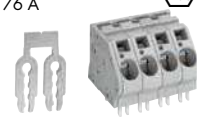
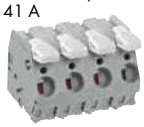
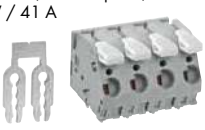
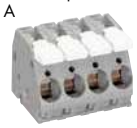
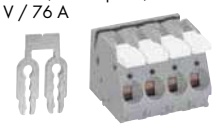
PCB Terminal Blocks

– Product Overview by Pin Spacing –

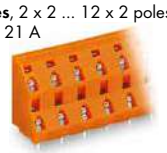
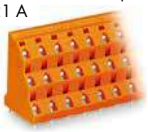
10 mm

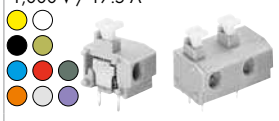
Item No.	Pack. Unit
236 Series, 2 ... 24 poles, 1,000 V / 10 A	
	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
236-301	200
236-324	20
736 Series, 2 x 2 ... 12 x 2 poles, 1,000 V / 21 A	
	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
736-702	112
736-712	14
737 Series, 2 x 3 ... 12 x 3 poles, 1,000 V / 21 A	
	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
737-702	64
737-712	8
255 Series, 2 ... 24 poles, 1,000 V / 24 A	
	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
255-601	200
255-624	20
256 Series, 2 ... 24 poles, 630 V / 24 A	
	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
256-601	200
256-624	20
257 Series, 2 ... 24 poles, 1,000 V / 24 A	
	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
257-601	200
257-624	20
739 Series, 2 ... 12 poles, 630 V / 24 A	
	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
739-3202	280
739-3212	40
745 Series, 2 ... 12 poles, 1,000 V / 32 A	
	
0.08 ... 4 mm² / 28 ... 12 AWG	
745-3202	192
745-3212	24

Item No.	Pack. Unit
235 Series, 2 ... 24 poles, 1,000 V / 17.5 A	
	
0.5 ... 1.5 mm² / 20 ... 14 AWG	
235-801/331-000	220
235-824/331-000	20
235 Series, 2 ... 24 poles, 1,000 V / 24 A	
	
0.5 ... 2.5 mm² / 20 ... 14 AWG "s"	
235-801	220
235-824	20
254 Series, 2 ... 24 poles, 1,000 V / 24 A	
	
0.5 ... 2.5 mm² / 20 ... 12 AWG "s"	
254-651	280
254-674	20
741 Series, 2 ... 8 poles, 1,000 V / 16 A	
	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
741-502	280
741-508	60

Item No.	Pack. Unit
745 Series, 2 ... 12 poles, 1,000 V / 32 A	
	
0.08 ... 4 mm² / 28 ... 12 AWG	
745-202	160
745-212	20
745 Series, 2 ... 12 poles, 1,000 V / 41 A	
	
0.2 ... 6 mm² / 24 ... 10 AWG	
745-352	104
745-362	16
745 Series, 2 ... 12 poles, 1,000 V / 41 A	
	
0.2 ... 6 mm² / 24 ... 10 AWG	
745-1352	104
745-1362	16
745 Series, 2 ... 5 poles, 320 V / 76 A	
	
0.2 ... 16 mm² / 24 ... 6 AWG	
745-502/006-000	48
745-505/006-000	20
2706 Series, 2 ... 12 poles, 1,000 V / 41 A	
	
0.5 ... 6 mm² / 20 ... 10 AWG	
2706-202	70
2706-212	10
2706 Series, 2 ... 12 poles, 1,000 V / 41 A	
	
0.5 ... 6 mm² / 20 ... 10 AWG	
2706-252	70
2706-262	10
2716 Series, 2 ... 8 poles, 320 V / 75 A	
	
1.5 ... 16 mm² / 16 ... 6 AWG	
2716-102	65
2716-108	15
2716 Series, 2 ... 8 poles, 1,000 V / 76 A	
	
1.5 ... 16 mm² / 16 ... 6 AWG	
2716-152	52
2716-158	12

10.16 mm

Item No.	Pack. Unit
236 Series, 2 ... 24 poles, 1,000 V / 10 A	
	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
236-301	200
236-324	20
736 Series, 2 x 2 ... 12 x 2 poles, 1,000 V / 21 A	
	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
736-802	112
736-812	14
737 Series, 2 x 3 ... 12 x 3 poles, 1,000 V / 21 A	
	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
737-802	64
737-812	8
255 Series, 2 ... 24 poles, 1,000 V / 24 A	
	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
255-601	200
255-624	20
256 Series, 2 ... 24 poles, 630 V / 24 A	
	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
256-601	200
256-624	20
257 Series, 2 ... 24 poles, 1,000 V / 24 A	
	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
257-601	200
257-624	20

Item No.	Pack. Unit
235 Series, 2 ... 24 poles, 1,000 V / 17.5 A	
	
0.5 ... 1.5 mm² / 20 ... 14 AWG	
235-801/331-000	220
235-824/331-000	20
235 Series, 2 ... 24 poles, 1,000 V / 24 A	
	
0.5 ... 2.5 mm² / 20 ... 14 AWG "s"	
235-801	220
235-824	20
254 Series, 2 ... 24 poles, 1,000 V / 24 A	
	
0.5 ... 2.5 mm² / 20 ... 12 AWG "s"	
254-651	280
254-674	20
741 Series, 2 ... 8 poles, 1,000 V / 16 A	
	
0.08 ... 2.5 mm² / 28 ... 12 AWG	
741-602	280
741-608	60

4

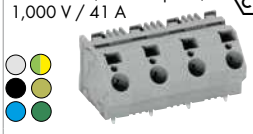
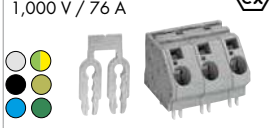
PCB Terminal Blocks

– Product Overview by Pin Spacing –

12.5 mm

Item No.	Pack. Unit
745 Series, 2 ... 12 poles, 1,000 V / 32 A  0.08 ... 4 mm² / 28 ... 12 AWG	
745-3252	168
745-3262	12
745 Series, 2 ... 12 poles, 1,000 V / 41 A  0.2 ... 6 mm² / 24 ... 10 AWG	
745-1402	80
745-1412	8
2706 Series, 2 ... 12 poles, 1,000 V / 41 A  0.5 ... 6 mm² / 20 ... 10 AWG	
2706-302	65
2706-312	5

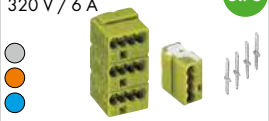
15 mm

Item No.	Pack. Unit
745 Series, 2 ... 12 poles, 1,000 V / 41 A  0.2 ... 6 mm² / 24 ... 10 AWG	
745-1452	64
745-1462	8
745 Series, 2 ... 5 poles, 1,000 V / 76 A  0.2 ... 16 mm² / 24 ... 6 AWG	
745-602/006-000	36
745-605/006-000	12
2716 Series, 2 ... 8 poles, 1,000 V / 76 A  1.5 ... 16 mm² / 16 ... 6 AWG	
2716-202	50
2716-208	10
2716 Series, 2 ... 8 poles, 1,000 V / 76 A  1.5 ... 16 mm² / 16 ... 6 AWG	
2716-252	40
2716-258	8

20 mm

Item No.	Pack. Unit
745 Series, 2 ... 5 poles, 1,000 V / 76 A  0.2 ... 16 mm² / 24 ... 6 AWG	
745-652/006-000	32
745-655/006-000	8

Pluggable PCB Terminal Blocks

Item No.	Pack. Unit
252 Series, 2 ... 10 poles, 320 V / 2 A 3.5  2 x 0.4 ... 0.8 mm Ø / 2 x 26 ... 20 AWG "s"	
252-102	600
252-110	150
252 Series, 2 ... 10 poles, 320 V / 2 A 3.5  2 x 0.4 ... 0.8 mm Ø / 2 x 26 ... 20 AWG "s"	
252-152	600
252-160	150
243 Series, 2 ... 8 poles, 320 V / 6 A 5.75  4 x 0.4 ... 1.0 mm Ø / 4 x 24 ... 18 AWG	
243-742	50
243-748	50
806 Series, 2 ... 12 poles, 320 V / 10 A 5  2 x 0.2 ... 1.5 mm² / 2 x 24 ... 16 AWG	
806-102	400
806-112	60

Comb-Style Jumper Bars

Item No.	Pack. Unit
Comb-style jumper bar, **5 mm** pin spacing, for **745 Series** – 4 mm² 	
745-181	250
745-185	200
Comb-style jumper bar, **7.5 mm** pin spacing, for **745 Series** – 4 mm² 	
745-191	250
745-195	200
Comb-style jumper bar, **10 mm** pin spacing, for **745 Series** – 4 mm² 	
745-281	250
745-285	200
Comb-style jumper bar, **7.5 mm** pin spacing, for **745 Series** – 6 mm² and **2706 Series** 	
745-381	250
745-385	200
Comb-style jumper bar, **10 mm** pin spacing, for **745 Series** – 6 mm² and **2706 Series** 	
745-391	250
745-395	200
Comb-style jumper bar, **10 mm** pin spacing, for **745 Series** – 16 mm² and **2716 Series** 	
745-582	400
745-585	200
Comb-style jumper bar, **15 mm** pin spacing, for **745 Series** – 16 mm² and **2716 Series** 	
745-631	200
745-635	200
Comb-style jumper bar, **20 mm** pin spacing, for **745 Series** – 16 mm² and **2716 Series** 	
745-681	300
745-685	200

SMD PCB Terminal Blocks

– Product Overview by Pin Spacing –

3 mm

Item No.	Pack. Unit
2059 Series, 1 ... 3 poles, 160 V / 3 A SMT	
	
0.14 ... 0.5 mm² / 26 ... 20 AWG "s"	
○ **2059-301/998-403**	31800
○ **2059-303/998-403**	21000

4 mm

Item No.	Pack. Unit
2060 Series, 1 ... 3 poles Solder pin length: **2.4 mm** 160 V / 9 A THR	
	
0.2 ... 0.75 mm² / 24 ... 18 AWG	
○ **2060-1451/998-404**	10800
○ **2060-1453/998-404**	4950
2060 Series, 1 ... 3 poles Solder pin length: **2.4 mm** 160 V / 9 A THR	
	
0.2 ... 0.75 mm² / 24 ... 18 AWG	
● **2060-1471/998-404**	10800
● **2060-1473/998-404**	4950
2060 Series, 1 ... 3 poles, 160 V / 9 A SMT	
	
0.2 ... 0.75 mm² / 24 ... 18 AWG	
○ **2060-451/998-404**	13500
○ **2060-453/998-404**	6750
2060 Series, 1 ... 3 poles, 160 V / 9 A SMT	
	
0.2 ... 0.75 mm² / 24 ... 18 AWG	
● **2060-471/998-404**	13500
● **2060-473/998-404**	6750

6 mm

Item No.	Pack. Unit
2061 Series, 1 ... 3 poles Solder pin length: **2.4 mm** 320 V / 17.5 A THR	
	
0.5 ... 1.5 mm² / 20 ... 16 AWG	
○ **2061-1601/998-404**	5760
○ **2061-1603/998-404**	2880
2061 Series, 1 ... 3 poles Solder pin length: **2.4 mm** 320 V / 17.5 A THR	
	
0.5 ... 1.5 mm² / 20 ... 16 AWG	
● **2061-1621/998-404**	5760
● **2061-1623/998-404**	2880
2061 Series, 1 ... 3 poles, 320 V / 17.5 A SMT	
	
0.5 ... 1.5 mm² / 20 ... 16 AWG	
○ **2061-601/998-404**	8100
○ **2061-603/998-404**	4050
2061 Series, 1 ... 3 poles, 320 V / 17.5 A SMT	
	
0.5 ... 1.5 mm² / 20 ... 16 AWG	
● **2061-621/998-404**	8100
● **2061-623/998-404**	4050

6 mm

Item No.	Pack. Unit
2061 Series, 1 ... 3 poles Solder pin length: **1.5 mm** 320 V / 17.5 A THR	
	
0.5 ... 1.5 mm² / 20 ... 16 AWG	
○ **2061-1641/998-404**	5760
○ **2061-1643/998-404**	2880
2061 Series, 1 ... 3 poles Solder pin length: **1.5 mm** 320 V / 17.5 A THR	
	
0.5 ... 1.5 mm² / 20 ... 16 AWG	
● **2061-1661/998-404**	5760
● **2061-1663/998-404**	2880

8 mm

Item No.	Pack. Unit
2060 Series, 2 poles, 630 V / 9 A SMT	
	
0.2 ... 0.75 mm² / 24 ... 18 AWG	
○ **2060-852/998-404**	6750
2060 Series, 2 poles Solder pin length: **2.4 mm** 630 V / 9 A THR	
	
0.2 ... 0.75 mm² / 24 ... 18 AWG	
● **2060-1872/998-404**	4590
2060 Series, 2 poles Solder pin length: **2.4 mm** 630 V / 9 A THR	
	
0.2 ... 0.75 mm² / 24 ... 18 AWG	
○ **2060-1852/998-404**	4590

Board-to-Board Links for SMD PCB Terminal Blocks with Push-Buttons

4 mm pin spacing, 1 ... 4 poles



2060-951/028-000	1500
2060-954/028-000	250

8 mm pin spacing, 2 poles



2060-962/028-000	375

Operating Tools

for 2059 Series



206-859	5

insulated, for **2059 Series**



2059-189	600

for 2060 Series



206-860	5

insulated, for **2060 Series**



2060-189	300

for 2061 Series

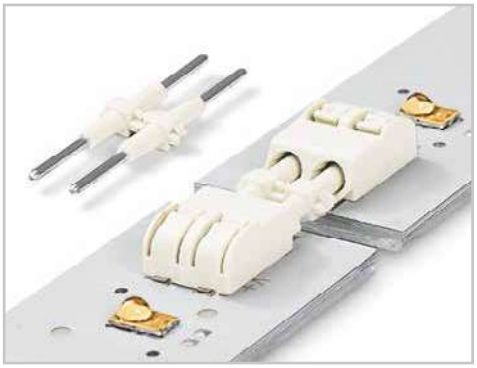


206-861	5

insulated, for **2061 Series**



2061-189	300



WINSTA® – The Pluggable Connection System

By interconnecting all electrical components, *WINSTA*® endows modern buildings with high levels of flexibility and durability that readily satisfy stringent norms and standards.

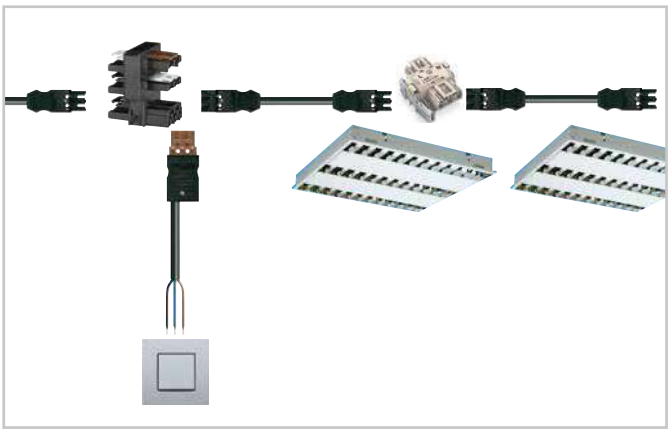
The *WINSTA*® system offers connections for virtually any building requirement from power supply to bus lines. Each unique WINSTA® model has been specifically developed to satisfy pole requirements, installation restrictions and current-carrying capacities.

Each model line contains both individual components (e.g., plugs, sockets, h-distribution connectors, T-distribution connectors, distribution boxes) and cable assemblies in standardized construction industry lengths.

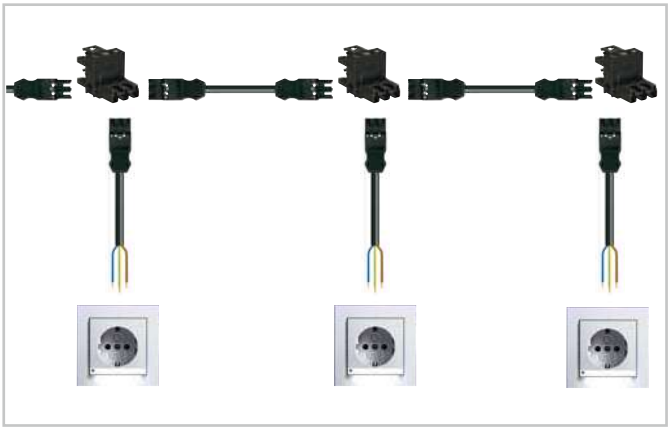


Installation Examples:

Built-in ceiling lights



Wall sockets



Floor tanks



WINSTA® Project Engineering

WAGO offers consulting and project planning services to help devise the best possible solution for your project. Our experienced team of professionals will gladly help you implement your project with our products.

Bid forms at
www.wago.com



WINSTA® – The Pluggable Connection System

WINSTA® MINI

For Space-Restricted Applications

- Sensors (switches, push-buttons, window contacts, pressure switches, temperature sensors, etc.)
- Actuators (control valves, magnetic valves, servo motors, blinds/sun protection, etc.)
- Protection class II for halogen lamps and luminaires
- Control signals
- 1.5 mm² (16 AWG), 250 V, 16 A

2 ... 5 poles
890 and 891 Series

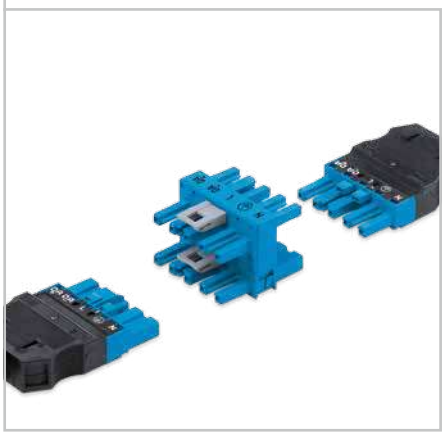


WINSTA® MIDI

For Maximum Possibilities

- General building installation, ideal for modern buildings
- Standard lighting fixtures and safety lights
- Tradeshow and shop installation
- Motor homes
- Lab work stations
- Rolling stock
- Shipbuilding
- 4 mm² (12 AWG), 250/400 V, 25 A

2 ... 5 poles
770 and 771 Series



WINSTA® MAXI

For High-Current Applications

- Power supply via 6 mm² (10 AWG) cable for extended cable runs
- 32 A power supply in distribution boxes for high energy requirements
- 6 mm² (10 AWG), 250/400 V, 35 A

5 poles
831 Series



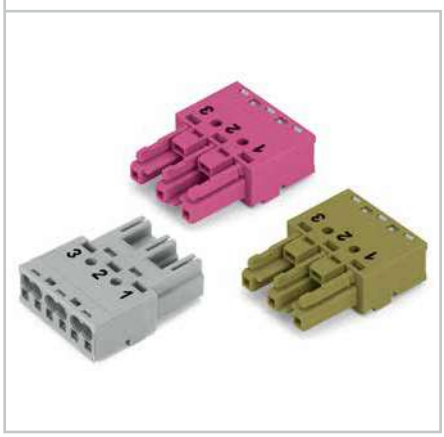
WINSTA® MINI special

For Specialty Applications
2 ... 5 poles
890 and 891 Series



WINSTA® MIDI special

For Specialty Applications
2 ... 5 poles
770 and 771 Series



WINSTA® Boxes

Distribution Boxes

899 Series



WINSTA® KNX

For the Standardized Bus

- KNX/EIB
- Control signals
- 0.8 mm Ø, 50 V, 3 A

2 poles
893 and 894 Series





WINSTA® IDC

For Maximum Flexibility

- Supply and tap off is possible at any time and at any location along the flat cable. No cutting, no stripping, no dismantling – very user-friendly
- A 120° rotation is all that is required to connect the flat cable
- Space-efficient across the flat cable through longitudinal tap off
- 2.5/4 mm² (14/12 AWG), 400 V, 25 A
- 10 mm² (8 AWG), 690 V, 57 A
- 16 mm² (6 AWG), 690 V, 76 A

2, 3, 5 and 7 poles
772, 893, 895, 896 and 897 Series





WINSTA® RD

For Round Conduits and Ducts

- Outside diameter of 17.5 mm for applications in electrical conduits with an inner diameter > 18 mm
- Prefabricated houses
- Recessed luminaires
- Wall and ceiling cutouts

3 and 4 poles
774 Series





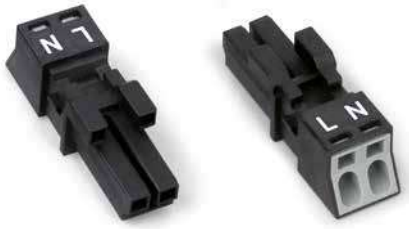
5

WINSTA® MINI
Sockets and Plugs
890 Series

0.25 … 1.5 mm²	22 … 16 AWG	
250 V/4 kV/3 ❶		
400 V/6 kV/3 ❷❸		
I_N 16 A ❶❷/13 A ❸		
9 mm / 0.35 in.		
❹ Approvals		

0.25 … 1.5 mm²	22 … 16 AWG	
250 V/4 kV/3 ❶		
400 V/6 kV/3 ❷❸		
I_N 16 A ❶❷/13 A ❸		
9 mm / 0.35 in.		
❹ Approvals		

Snap-on type strain relief housings for sockets and plugs







Color/Pole No.	Item No.	Pack. Unit
Socket without strain relief housing		
● 2 poles	**890-202** ❶	50
○ 2 poles	**890-222** ❶	50
● 3 poles	**890-203** ❶	50
○ 3 poles	**890-223** ❶	50
● 4 poles	**890-204** ❷	50
○ 4 poles	**890-224** ❷	50
● 5 poles	**890-205** ❸	50
○ 5 poles	**890-225** ❸	50

Color/Pole No.	Item No.	Pack. Unit
Plug without strain relief housing		
● 2 poles	**890-212** ❶	50
○ 2 poles	**890-232** ❶	50
● 3 poles	**890-213** ❶	50
○ 3 poles	**890-233** ❶	50
● 4 poles	**890-214** ❷	50
○ 4 poles	**890-234** ❷	50
● 5 poles	**890-215** ❸	50
○ 5 poles	**890-235** ❸	50

Color/Pole No.	Item No.	Pack. Unit
Strain relief housing,		
for 3.8 … 8.2 mm cable diameter		
● 2 poles	**890-502**	50
○ 2 poles	**890-512**	50
for 4.5 … 10 mm cable diameter		
● 3 poles	**890-503**	50
○ 3 poles	**890-513**	50
for 6.5 … 10.5 mm cable diameter		
● 4 poles	**890-504**	50
○ 4 poles	**890-514**	50
for 6.5 … 10.5 mm cable diameter		
● 5 poles	**890-505**	50
○ 5 poles	**890-515**	50

Accessories, 890 Series

Locking lever, tool operated,



for "flying leads"

●	**890-111**	100 (2x50)
○	**890-131**	100 (2x50)

Operating tool with a partially insulated shaft,



type 1, (2.5 x 0.4) mm blade

	210-719	1

Locking lever, tool operated,



for "flying leads"

●	**890-111**	100 (2x50)
○	**890-131**	100 (2x50)

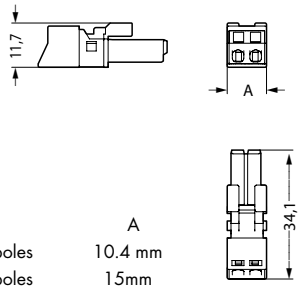
Operating tool with a partially insulated shaft,



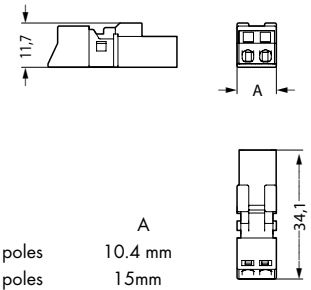
type 1, (2.5 x 0.4) mm blade

	210-719	1

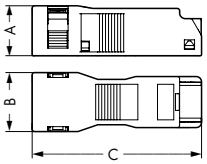
Dimensions



	A
2 poles	10.4 mm
3 poles	15mm
4 poles	19.2 mm
5 poles	23.6 mm



	A
2 poles	10.4 mm
3 poles	15mm
4 poles	19.2 mm
5 poles	23.6 mm



	A	B	C
2 poles	13.2 mm	15.6 mm	44.8 mm
3 poles	14 mm	17.9 mm	46.8 mm
4 poles	16 mm	23.2 mm	55 mm
5 poles	15.8 mm	26.7 mm	55.15 mm

❹ For all approvals and corresponding ratings, visit www.wago.com.

For technical explanations and abbreviations, see technical section.

WINSTA® MINI
Snap-In Sockets and Plugs
890 Series

PUSH-IN CAGE CLAMP®

0.25 … 1.5 mm²	22 … 16 AWG
250 V/4 kV/3 ❶	
400 V/6 kV/3 ❷❸	
I_N 16 A ❶❷/13 A ❸	
9 mm / 0.35 in.	
❹ Approvals	

0.25 … 1.5 mm²	22 … 16 AWG
250 V/4 kV/3 ❶	
400 V/6 kV/3 ❷❸	
I_N 16 A ❶❷/13 A ❸	
9 mm / 0.35 in.	
❹ Approvals	





Color/Pole No.	Item No.	Pack. Unit
Snap-in socket		
● 2 poles	**890-702** ❶	50
○ 2 poles	**890-722** ❶	50
● 3 poles	**890-703** ❶	50
○ 3 poles	**890-723** ❶	50
● 4 poles	**890-704** ❷	50
○ 4 poles	**890-724** ❷	50
● 5 poles	**890-705** ❸	50
○ 5 poles	**890-725** ❸	50

Color/Pole No.	Item No.	Pack. Unit
Snap-in plug		
● 2 poles	**890-712** ❶	50
○ 2 poles	**890-732** ❶	50
● 3 poles	**890-713** ❶	50
○ 3 poles	**890-733** ❶	50
● 4 poles	**890-714** ❷	50
○ 4 poles	**890-734** ❷	50
● 5 poles	**890-715** ❸	50
○ 5 poles	**890-735** ❸	50

Accessories, 890 Series

Operating tool with a partially insulated shaft,



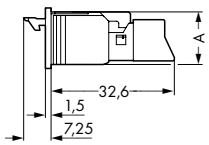
type 1, (2.5 x 0.4) mm blade
210-719 1

Operating tool with a partially insulated shaft,

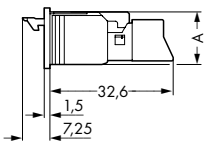


type 1, (2.5 x 0.4) mm blade
210-719 1

Dimensions

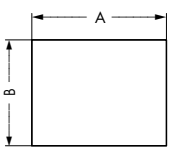


	A	B	C
2 poles	13.9 mm	19.8 mm	16 mm
3 poles	13.9 mm	24.2 mm	16 mm
4 poles	13.9 mm	28.6 mm	16 mm
5 poles	14.6 mm	35.5 mm	17.5 mm



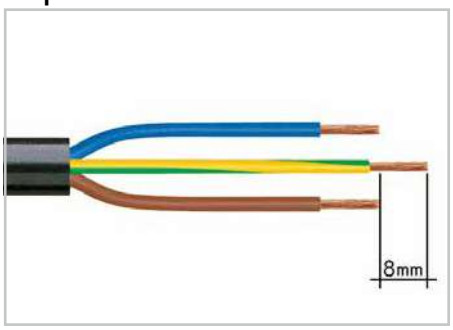
	A	B	C
2 poles	13.9 mm	19.8 mm	16 mm
3 poles	13.9 mm	24.2 mm	16 mm
4 poles	13.9 mm	28.6 mm	16 mm
5 poles	14.6 mm	35.5 mm	17.5 mm

Cutout Dimensions
Plate thickness: 0.5 … 2 mm
Cutout tolerance: + 0.1 mm



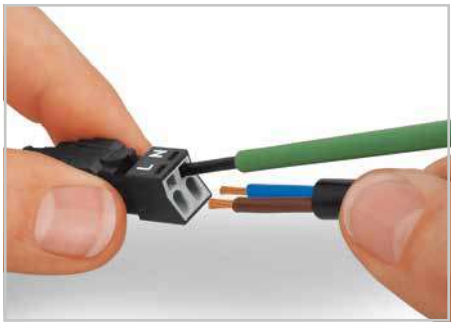
	A	B
2 poles	17.8 mm	14 mm
3 poles	22.2 mm	14 mm
4 poles	26.6 mm	14 mm
5 poles	33 mm	15.6 mm

Preparation



1. Strip length, outer insulation = 30 mm (2-pole),
   37 mm (3-pole)
   45 mm (4- and 5-pole)
2. Strip length = 9 mm
3. Extended ground conductor = 8 mm

Termination via Push-in CAGE CLAMP®



To terminate fine-stranded conductors, open clamping unit via screwdriver (2.5 mm blade width) and insert stripped conductor until it hits backstop. Solid conductors can be terminated by simply pushing them in.

Locking lever assembly



All connectors for fixed installations (snap-in versions for lighting fixtures, devices or all types of PCBs and distribution cabinets) are factory-equipped with locking levers to ensure plugs and sockets are securely locked. Additional locking levers are only required for "flying leads" (plug/socket).

5

❹ For all approvals and corresponding ratings, visit www.wago.com.

For technical explanations and abbreviations, see technical section.

WINSTA® MIDI
Sockets and Plugs
770 Series

2 x 0.5 ... 4 mm²	**20 ... 12 AWG**	**Snap-on type strain relief housings for sockets and plugs**
250 V/4 kV/3 ❶		
400 V/6 kV/3 ❷		
I_N 25 A		
9 mm / 0.35 in.		
❸ Approvals		







Color/Pole No.	Item No.	Pack. Unit
Socket without strain relief housing		
● 2 poles	**770-202** ❶	100
○ 2 poles	**770-222** ❶	100
● 3 poles	**770-203** ❶	100
○ 3 poles	**770-223** ❶	100
● 4 poles	**770-204** ❷	100
○ 4 poles	**770-224** ❷	100
● 5 poles	**770-205** ❷	100
○ 5 poles	**770-225** ❷	100

Color/Pole No.	Item No.	Pack. Unit
Plug without strain relief housing		
● 2 poles	**770-212** ❶	100
○ 2 poles	**770-232** ❶	100
● 3 poles	**770-213** ❶	100
○ 3 poles	**770-233** ❶	100
● 4 poles	**770-214** ❷	100
○ 4 poles	**770-234** ❷	100
● 5 poles	**770-215** ❷	100
○ 5 poles	**770-235** ❷	100

Color/Pole No.	Item No.	Pack. Unit
Strain relief housing,		
for 7 ... 10.5 mm cable diameter		
● 2 poles	**770-502/041-000**	50
○ 2 poles	**770-512/041-000**	50
for 8 ... 11 mm cable diameter		
● 3 poles	**770-503**	50
○ 3 poles	**770-513**	50
for 9 ... 13 mm cable diameter		
● 4 poles	**770-504**	50
○ 4 poles	**770-514**	50
for 9 ... 13 mm cable diameter		
● 5 poles	**770-505**	50
5 poles	**770-515**	50

Accessories, 770 Series

Lockout cap, for socket, separable, 12-pole



●	**770-201**	100
○	**770-221**	100

Lockout cap, for plug, separable, 5-pole



●	**770-360**	100

Coding pin, for plug (A and B coding)



○	**770-401**	100

Locking lever, tool operated,



for "flying leads"

●	**770-111**	100 (4x25)
○	**770-131**	100 (4x25)

Locking lever, tool operated,



for "flying leads"

●	**770-111**	100 (4x25)
○	**770-131**	100 (4x25)

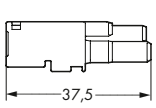
Operating tool with a partially insulated shaft,

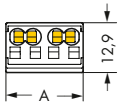


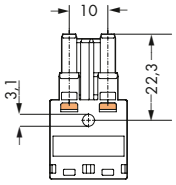
type 1, (2.5 x 0.4) mm blade

210-719	1

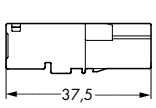
Dimensions

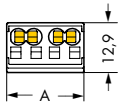


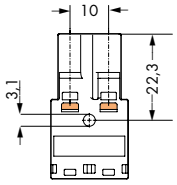




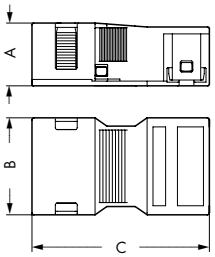
	A
2 poles	20 mm
3 poles	30 mm
4 poles	40 mm
5 poles	50 mm







	A
2 poles	20 mm
3 poles	30 mm
4 poles	40 mm
5 poles	50 mm



	A	B	C
2 poles	15.9 mm	24.6 mm	45 mm
3 poles	15mm	34.6 mm	50 mm
4 poles	17 mm	44.6 mm	50 mm
5 poles	17 mm	54.6 mm	50 mm

❸ For all approvals and corresponding ratings, visit www.wago.com.

For technical explanations and abbreviations, see technical section.

WINSTA® MIDI
Snap-In Sockets and Plugs
770 Series

PUSH-IN CAGE CLAMP®

2 x 0.5 ... 4 mm²	20 ... 12 AWG
250 V/4 kV/3 ❶	
400 V/6 kV/3 ❷	
I_N 25 A	
9 mm / 0.35 in.	
❸ Approvals	

2 x 0.5 ... 4 mm²	20 ... 12 AWG
250 V/4 kV/3 ❶	
400 V/6 kV/3 ❷	
I_N 25 A	
9 mm / 0.35 in.	
❸ Approvals	





Color/Pole No.	Item No.	Pack. Unit
Snap-in socket		
● 3 poles	**770-703** ❶	100
○ 3 poles	**770-723** ❶	100
● 4 poles	**770-704** ❷	100
○ 4 poles	**770-724** ❷	100
● 5 poles	**770-705** ❷	100
○ 5 poles	**770-725** ❷	100

Color/Pole No.	Item No.	Pack. Unit
Snap-in plug		
● 3 poles	**770-713** ❶	100
○ 3 poles	**770-733** ❶	100
● 4 poles	**770-714** ❷	100
○ 4 poles	**770-734** ❷	100
● 5 poles	**770-715** ❷	100
○ 5 poles	**770-735** ❷	100

Accessories, 770 Series

Lockout cap, for socket, separable, 12-pole



●	**770-201**	100
○	**770-221**	100

Lockout cap, for plug, separable, 5-pole



●	**770-360**	100

Operating tool with a partially insulated shaft, type 1, (2.5 x 0.4) mm blade



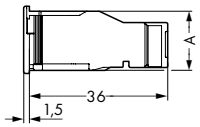
210-719 1

Coding pin, for plug (A and B coding)

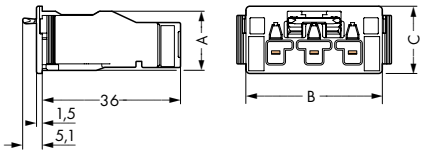


○	**770-401**	100

Dimensions



	A	B	C
3 poles	15.4 mm	35.5 mm	17.5 mm
4 poles	16.4 mm	45.5 mm	18.5 mm
5 poles	16.4 mm	55.5 mm	18.5 mm

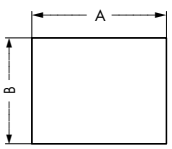


	A	B	C
3 poles	15.4 mm	35.5 mm	17.5 mm
4 poles	16.4 mm	45.5 mm	18.5 mm
5 poles	16.4 mm	55.5 mm	18.5 mm

Cutout Dimensions

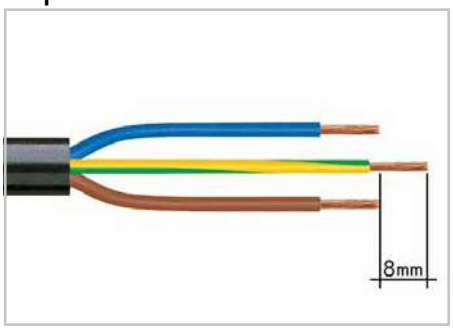
Plate thickness: 0.5 ... 2 mm

Cutout tolerance: + 0.1 mm



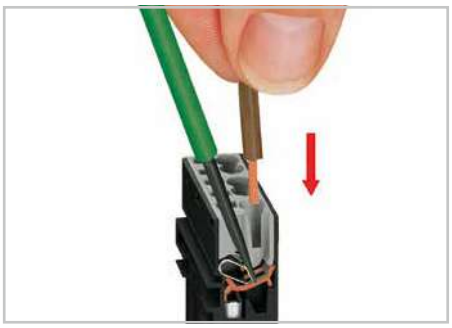
	A	B
3 poles	33 mm	15.6 mm
4 poles	42.75 mm	16.6 mm
5 poles	52.5 mm	16.6 mm

Preparation



1. Strip length, outer insulation = 35 mm (2-pole), 55 mm (3-, 4- and 5-pole)
2. Strip length = 9 mm
3. Extended ground conductor = 8 mm

Termination via Push-in CAGE CLAMP®



To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert stripped conductor until it hits backstop. Solid conductors can be terminated by simply pushing them in.

Locking lever assembly



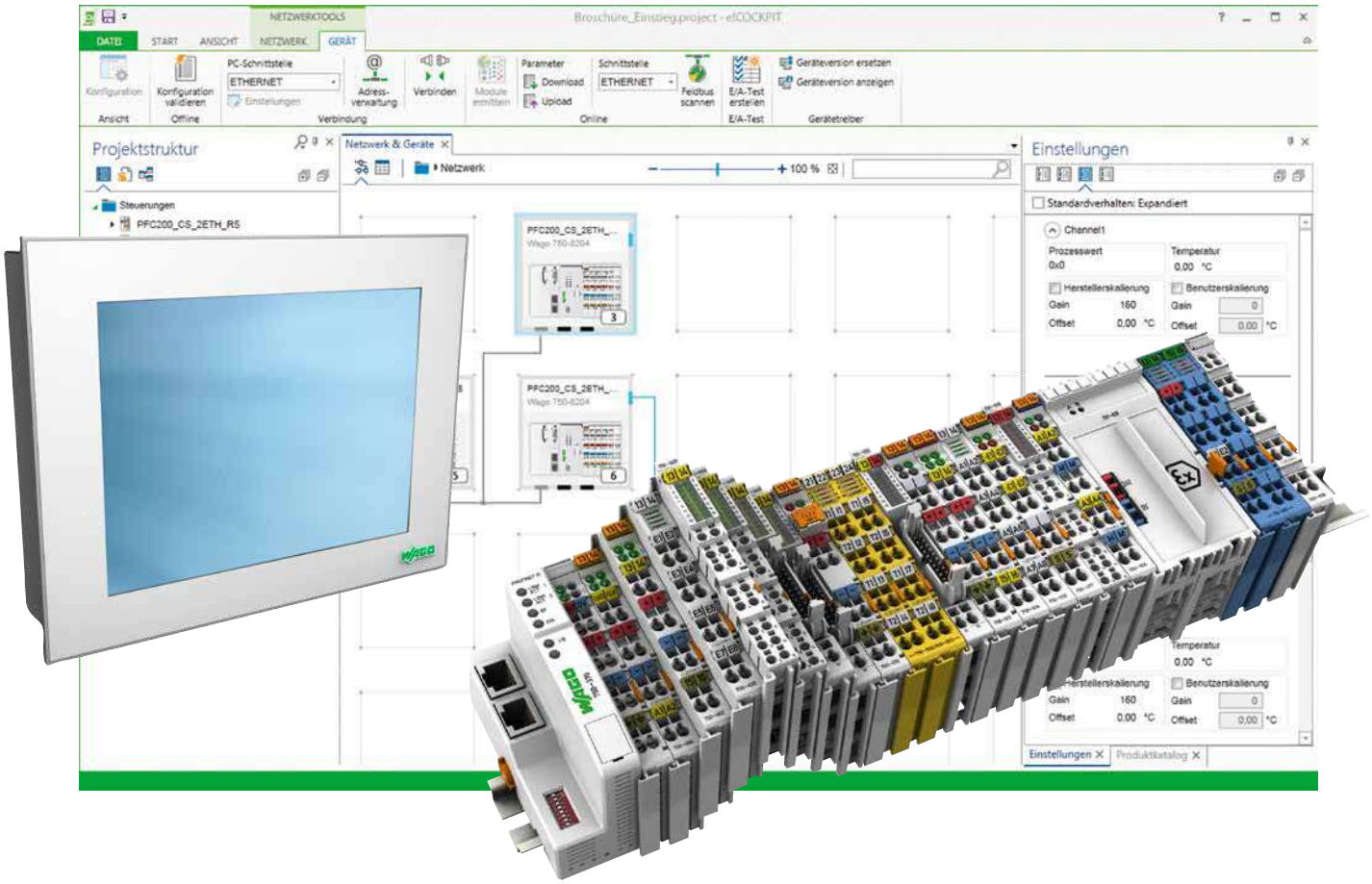
All connectors for fixed installations (snap-in versions for lighting fixtures, devices or all types of PCBs and distribution cabinets) are factory-equipped with locking levers to ensure plugs and sockets are securely locked. Additional locking levers are only required for "flying leads" (plug/socket).

5

❸ For all approvals and corresponding ratings, visit www.wago.com.

For technical explanations and abbreviations, see technical section.

Automation Technology



Interface Electronic



WAGO Automation Technology

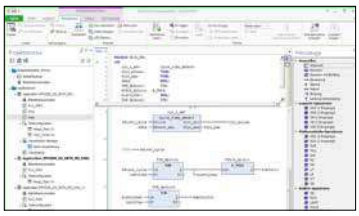
Software

Engineering Software



- PC-based software
- Customized tools for every automation task

Runtime Software



- Standard machine component
- Comprehensive, fully tested software modules for controlling, operation and monitoring

Mobile Software (Apps)



- Machine operation and monitoring on tablet and smartphone

Operation & Monitoring

PERSPECTO® Control Panels



e!DISPLAY 7300T Web Panels



- Web-based visualization
- 8.9 cm ... 25.6 cm (4.3" ... 10.1")

PERSPECTO® Web Panels



- Web-based visualization
- 8.9 cm ... 30.7 cm (3.5" ... 12")

Controllers

PFC200 / PFC200 XTR



- High processing speed
- Wide variety of interfaces
- Runtime system for CODESYS 2 and 3
- Also programmable in high-level language based on Linux®

PFC100



- Extremely compact design
- ***e!****RUNTIME* environment based on CODESYS 3
- Real-time Linux® operating system
- TSL 1.2, IPsec, OpenVPN and firewall

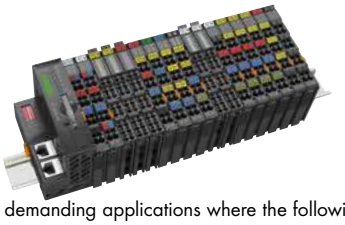
I/O-Systems

I/O-System – 750 and 753 Series



- Highly versatile
- More than 500 modules available
- Functional safety
- Ex i

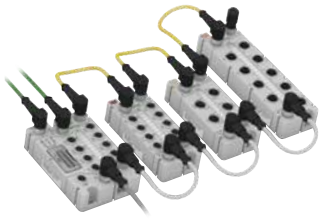
I/O-System – 750 XTR Series



For demanding applications where the following are critical:

- Extreme temperature stability
- Immunity to electromagnetic interference and impulse voltages
- Vibration and shock resistance

I/O-System – *SPEEDWAY 767* Series



- Uncompromising protection – even in the harshest environments outside the control cabinet
- IP67 degree of protection
- Fully encapsulated

Infrastructure

ETHERNET Switches



- Copper cables
- Fiber optic cables
- Ring redundancy

Radio Technology



- *Bluetooth*®
- WLAN
- EnOcean®

TO-PASS® Telecontrol Technology



- Telecontrol technology based on GSM/GPRS
- See Full Line Catalog

Software Solutions (Applications)



- Reusable, customizable solutions

Software

Engineering Software
Runtime Software
Mobile Software (Apps)
Software Solutions (Applications)

Operation & Monitoring

PERSPECTO® Web Panels
PERSPECTO® Control Panels
e!*DISPLAY 7300T* Web Panels

750 Series Controllers



- Decentralized intelligence based on fieldbus couplers
- Programmable to IEC 61131-3
- Modular WAGO-I/O-SYSTEM 750

750 XTR Controllers



For demanding applications where the following are critical:
- Extreme temperature stability
- Immunity to electromagnetic interference and impulse voltages
- Vibration and shock resistance

Controllers

PERSPECTO® Control Panels

PFC100/PFC200
750 Series Controllers
750 XTR Controllers

6

I/O-Systems

750 and 753 Series
Fieldbus Couplers
I/O Modules
750 XTR Series
SPEEDWAY

Sensor/Actuator Boxes, IP67



- Passive M8/M12 sensor/actuator boxes
- Machine-level signal connection in harsh environments

Power Supplies
Accessories



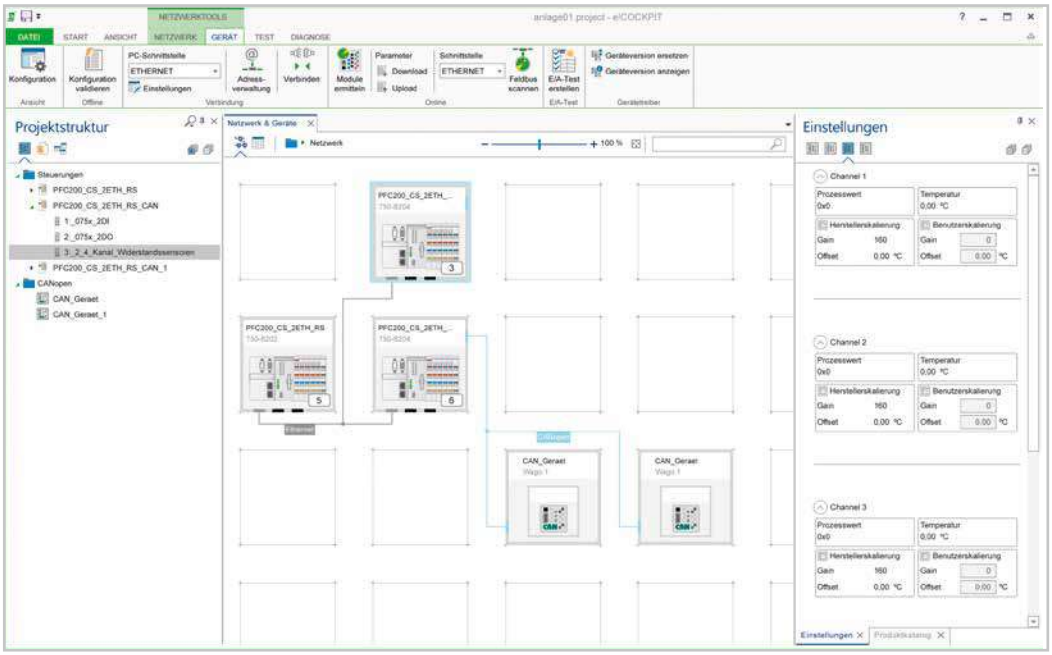


Infrastructure

ETHERNET Switches
Radio Technology
TO-PASS® Telecontrol Technology
Sensor/Actuator Boxes

Accessories
Power Supplies
Cables and Pluggable Connectors, IP67

e!COCKPIT
CODESYS 3-Based Integrated Engineering



e!*COCKPIT* automation software for faster machine and system startup: WAGO'S new engineering software shortens development time for automation projects while impressing with a modern and clearly laid out user interface. At the software's core is CODESYS 3 for simple and versatile creation of applications.

Ensuring a project's long-term viability through sustainable cost savings hinges on a user's ability to quickly adapt to new software that offers a high degree of reusability.

WAGO set out to fulfill these exact requirements by developing its own engineering software: ***e!****COCKPIT*. This integrated development environment supports every automation task from hardware configuration, programming, simulation and visualization up to commissioning – all in one software package.

Use the programming tool to cover all important automation bases while simultaneously engineering particularly complex projects quickly and easily.

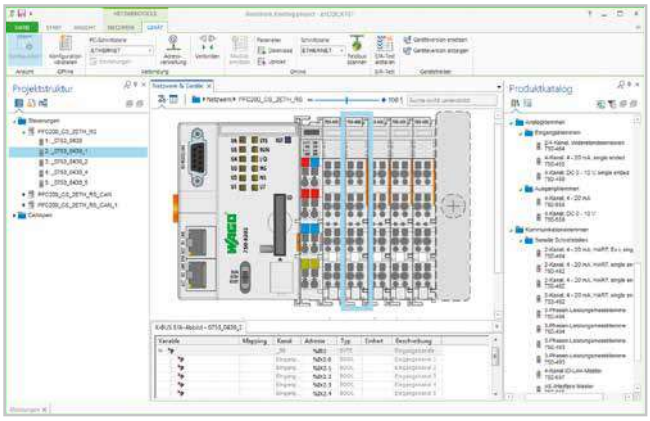
Description	Item No.	Pack. Unit
e!COCKPIT workstation license	**2759-101/1110-2002**	1
e!COCKPIT multi-user license, 10 ea.	**2759-101/1110-2010**	1
e!COCKPIT multi-user license, 15 ea.	**2759-101/1110-2015**	1
e!COCKPIT multi-user license, 20 ea.	**2759-101/1110-2020**	1
e!COCKPIT site license	**2759-101/1110-3000**	1
e!COCKPIT buy-out license	**2759-101/1110-4000**	1
Workstation license: Can be installed on up to two PCs (e.g., notebook & desktop)		
Multi-user license: Can be installed up to the number specified		
Site license: Unlimited installations at a company location		
Buy-out license: Unlimited installations within a company at every country's location. In addition, the software shall be used in the company's products that contain WAGO's automation components to form a functional unit.		

Accessories	Item No.	Pack. Unit
WAGO USB communication cable, 2.5 m long	**750-923**	1
WAGO USB communication cable, 5 m long	**750-923/000-001**	1

Technical Data	
Supported operating systems	Windows 7 (32- and 64-bit), Windows 8, Windows 8.1 (32- and 64-bit)
System requirements:	
Processor	Core2Duo
Memory	2 GB
Hard disk storage	1 GB
Graphics resolution	1,366 x 768 px
Supported devices	Controllers based on CODESYS 3, I/O modules (750/753)
Supported fieldbuses	CANopen, MODBUS TCP/UDP, MODBUS RTU, PROFIBUS
Supported device descriptions	DTP, EDS, GSD
Connectivity	TCP, USB, OPC, CODESYS network variables, CODESYS DataServer
Programming languages	IEC 61131-3: ST, LD, FBD, IL, FC, CFC
Import/export formats	CODESYS 3 project files (*.project)
Delivery type	Installation file (download)

Internet connection may be required for license activation.

e!COCKPIT
Features Overview



Configuration and Parameterization

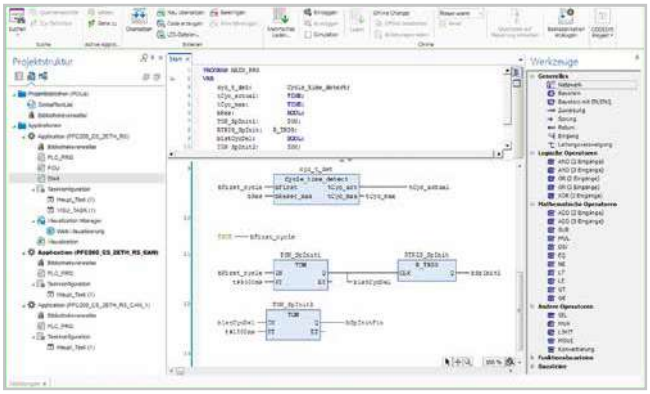
The integrated ***e!****COCKPIT* configurators provide modern operating tools and workspaces, such as:

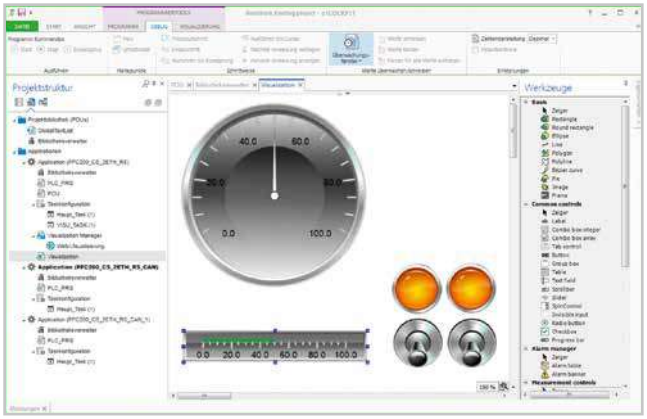
- Graphical network topology: Complex dependencies between network participants and their current states are easily and intuitively accessed
- Drag & Drop: Simplifies interaction with devices
- Copy & Paste: Individual devices or whole network branches can be duplicated quickly
- Batch processing: Parameter values are set simultaneously for several devices

Programming

e!*COCKPIT* offers multiple software development options:

- IEC 61131-3 PLC programming languages: Structured Text (ST), Ladder Diagram (LD), Function Block Diagram (FBD), Instruction List (IL), Sequential Function Chart (SFC), Continuous Function Chart (CFC)
- For flexibility, all programming languages can be combined with one another
- Created programs can be easily debugged on the engineering PC via simulation
- New paradigms such as object-oriented programming are included





Visualization

Advanced user interfaces for operating and monitoring machines are standard. Today, HMI-based design is a critical factor that influences the purchase of an entire automation line. ***e!****COCKPIT* employs Drag & Drop to streamline the design of modern user interfaces. The integrated visualization editor provides:

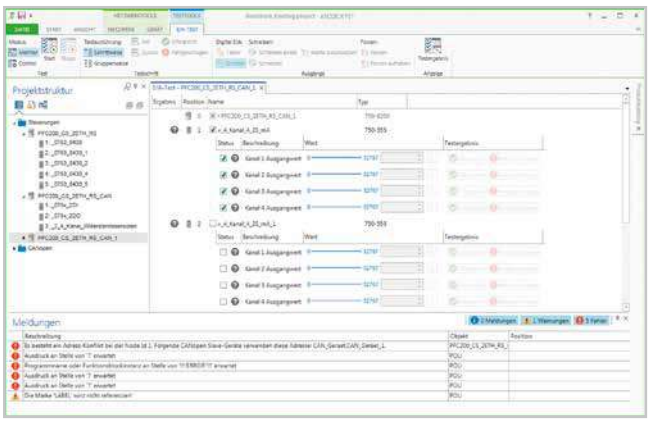
- Access to IEC program variables
- Closed simulation of HMI and PLC program on the engineering PC
- Guaranteed language independence via Unicode character set
- Current standards such as HTML 5 or CSS

Diagnostics

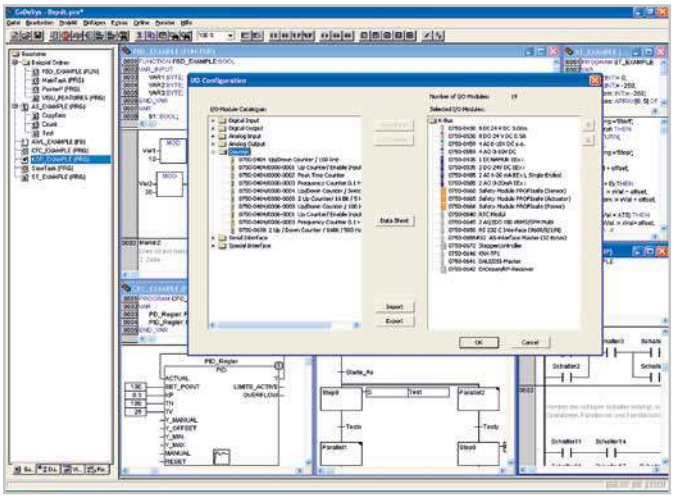
Being acutely aware of the automation network's current status is an absolute must for the rapid detection and elimination of errors – be it during development in the office or directly on the machine during commissioning.

e!*COCKPIT* provides comprehensive diagnostic capabilities:

- Individual views always display the controllers' status information, for example, both graphically and in tabular form
- To keep the project on time, error messages are transmitted directly and clearly
- The structured wiring test function systematically identifies wiring errors



WAGO-I/O-*PRO* V2.3
IEC 61131-3 Programming Tool



WAGO-I/O-*PRO* is a programming and visualization tool for control programs. This software is used to develop PLC applications for the WAGO-I/O-SYSTEM 750 Series Programmable Fieldbus Controllers.

WAGO-I/O-*PRO* runs in line with the IEC 61131-3 standard, which specifies the requirements for a programming system. The IL, SFC, LD, FBD and ST programming languages are supported. The optimal programming language can be chosen for each application.

With extensive programming functions, the software readily meets the increasing requirements of control program development (e.g., reusability and modularization).

Description	Item No.	Pack. Unit
WAGO-I/O-*PRO* V2.3, RS-232 Kit	**759-333**	1
WAGO-I/O-*PRO* V2.3, USB Kit	**759-333/000-923**	1
WAGO-I/O-*PRO* V2.3, CD-ROM	**759-911**	1

Approvals

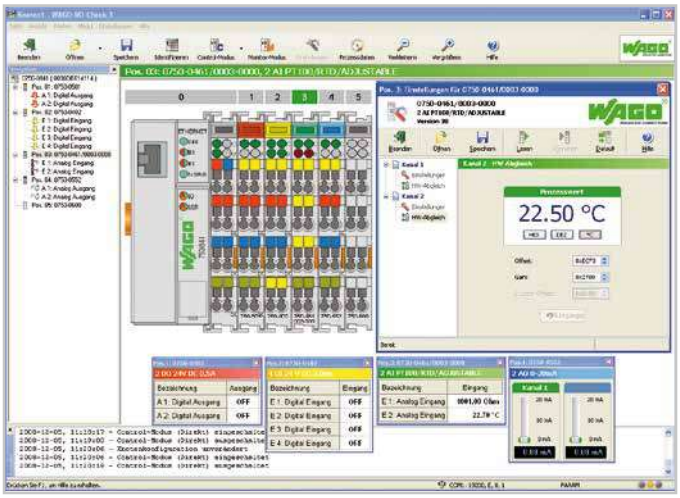
Marine applications	ABS, DNV, GL, KR, NKK and RINA

Technical Data

Supported operating systems	Windows XP (SP3 or later), Windows 7
System requirements:	
Processor	1 GHz or higher, with 32 bits (x86) or 64 bits (x64)
Memory	1 GB RAM (min.), 2 GB RAM or more (recommended)
Hard disk storage	300 MB (min.)
CD-ROM	Required
Graphics resolution	1024 x 786 (min.), 1280 x 1024 or higher (recommended)
Mouse	Required
Other	Open serial interface
Delivery type	**RS-232 Kit:** CD-ROM with software and serial communication cable (750-920) **USB Kit:** CD-ROM with software and USB communication cable (750-923) **CD-ROM:** CD-ROM with software (without communication cable)

Windows® is a registered trademark of Microsoft Corporation.

WAGO-I/O-*CHECK*
Commissioning Tool for the WAGO-I/O-SYSTEM 750



WAGO-I/O-*CHECK* is an easy-to-use Windows application for operating and displaying a WAGO-I/O-SYSTEM 750 node without connecting the node to a fieldbus system.
The software reads the configuration from the node and displays it as an on-screen graphic. The graphic can be printed together with a configuration list as documentation.

With WAGO-I/O-*CHECK*, it is possible to display and determine the process data of the bus modules. The field wiring, including all sensors and actuators, can thus be checked before startup.

Description	Item No.	Pack. Unit
WAGO-I/O-*CHECK*, RS-232 Kit	**759-302**	1
WAGO-I/O-*CHECK*, USB Kit	**759-302/000-923**	1
WAGO-I/O-*CHECK*, CD-ROM	**759-920**	1

Technical Data

Supported operating systems	Windows XP (SP3 or later), Windows 7
System requirements:	
Processor	1 GHz or higher, with 32 bits (x86) or 64 bits (x64)
Memory	1 GB RAM (min.), 2 GB RAM or more (recommended)
Hard disk storage	150 MB (min.)
CD-ROM	Required
Graphics resolution	1024 x 786 (min.) 1280 x 1024 or higher (recommended)
Mouse	Required
Delivery type	**RS-232 Kit:** CD-ROM with software and serial communication cable (750-920) **USB Kit:** CD-ROM with software and USB communication cable (750-923) **CD-ROM:** CD-ROM with software (without communication cable)

Windows® is a registered trademark of Microsoft Corporation.

WAGO WebVisu App
For Mobile System Operation/Monitoring



Using the WAGO WebVisu App, you can access CODESYS 2 WebVisu websites on mobile devices. The system or machine to be monitored can then be operated and monitored at any time on the go. You can define up to 100 controllers for direct and quick access via the URL.

The free WAGO WebVisu App is available in iOS for iPhones and iPads in the Apple "App Store," and in Android for smartphones and tablets in the "Google Play™" store.

Note: An overview of the supported WAGO controllers, operating manuals and application notes can be found on our website or at www.wago.com/webvisu.

Description

WAGO WebVisu App

Technical Data

System requirements:	
Operating system	iOS (version 4.3 or later) Android (version 2.2 or later)
Compatibility	iPhone, iPad and iPod touch, Android smartphones and tablets

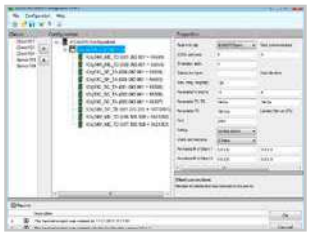
Simply scan the QR code with your mobile device and you will automatically be directed to the WebVisu App in "App Store" or "Google Play™."

Download on the App Store

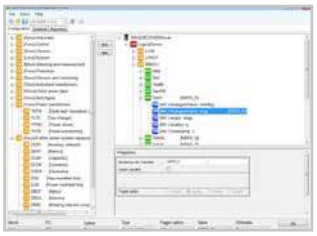
GET IT ON Google play

Apple, the Apple logo, iPhone, iPad and iPod touch are registered trademarks of Apple Inc. registered in the USA and other countries.
"App Store" is a service mark of Apple Inc.
"Google Play™" is a registered trademark of Google Inc.

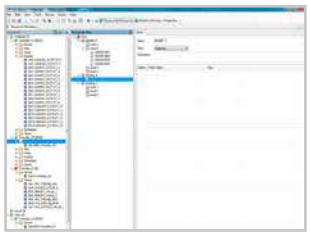
Additional Software



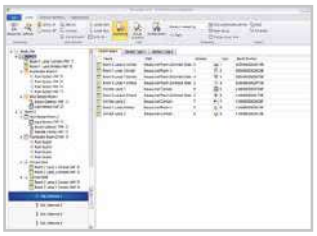
IEC 60870 Configuration Dialog



IEC 61850 Configuration Dialog



WAGO BACnet Configurator



DALI Configurator



DNP3 Configurator

Description

IEC 60870 Configurator
Configuration dialog integrated in WAGO-I/O-*PRO* v2.3 for IEC 60870-5-101/-103/-104 communication parameterization

IEC 61850 Configurator
Configuration dialog integrated in WAGO-I/O-*PRO* v2.3 for IEC 61850 communication parameterization

DNP3 Configurator
Configuration dialog integrated in WAGO-I/O-*PRO* v2.3 for DNP3 communication parameterization

WAGO BACnet Configurator
Supported operating systems: Windows XP (SP3 or later), Windows 7
For a free download, visit www.wago.com.

DALI Configurator
Included in WAGO-I/O-*CHECK* (version 3.5.1 and higher) or as a stand-alone application at www.wago.com

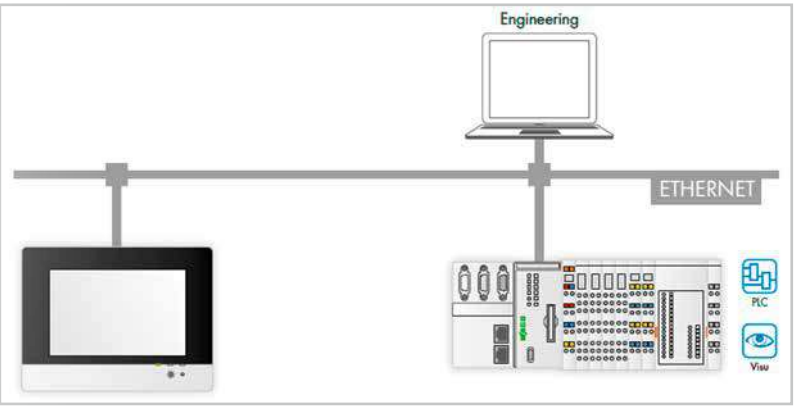
LON® Configurator
Included in WAGO-I/O-*PRO* (Version 2.3.9.34 and higher) at: www.wago.com

WAGO ETS Plug-In
Supported operating systems: Windows XP, Windows 7
For free download, visit www.wago.com.

6

e!DISPLAY 7300T
Web Panels





	Description	Diagonal Screen Size	Screen Resolution	USB 2.0	ETHERNET/ MODBUS TCP	microSD Card	Item No.
	***e!DISPLAY 7300T*** Web Panel	10.9 cm (4.3″), 16:9	480 x 272 pixels	2	2	1	**762-3000**
	***e!DISPLAY 7300T*** Web Panel	14.5 cm (5.7″), 4:3	640 x 480 pixels	2	2	1	**762-3001**
	***e!DISPLAY 7300T*** Web Panel	18 cm (7.0″), 16:9	800 x 480 pixels	2	2	1	**762-3002**
	***e!DISPLAY 7300T*** Web Panel	25.7 cm (10.1″), 16:9	1280 x 800 pixels	2	2	1	**762-3003**

Accessories

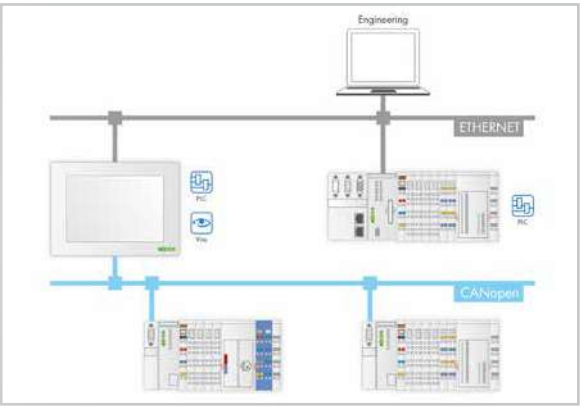
	Description						Item No.
	Memory Card	microSD, 1 GB					**758-879/000-002**

Features:

- Analog, resistive (single-touch) screen
- Four display diagonals available: 4.3″, 5.7″, 7.0″ and 10.1″
- Status LEDs (1 x operating status, 2 x operational feedback)
- Front-mount brightness adjustment
- Variable mounting position (viewing angle, horizontal/vertical: +/- 65°)
- Easy installation via universal mounting system (VESA mount) and wide mounting collar
- Protection class (front/back): IP65/IP20
- Passive cooling system

PERSPECTO®
Web and Control Panels





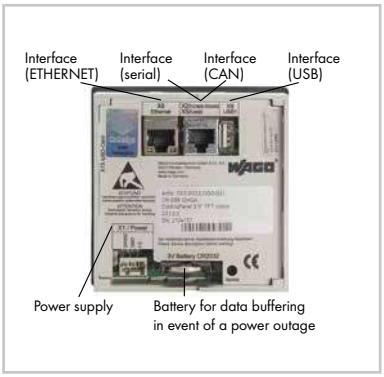
	Description	Diagonal Screen Size	Screen Resolution	USB 2.0	ETHERNET/ MODBUS TCP	CANopen	Others	Item No.
	***PERSPECTO***®, Web Panels	8.9 cm (3.5")	320 x 240 pixels	1			Web browser	**762-1035**
		14.5 cm (5.7")	320 x 240 pixels	2			Web browser	**762-1057**
		26.4 cm (10.4")	640 x 480 pixels	2			Web browser	**762-1104**
		30.7 cm (12.1")	800 x 600 pixels	2			Web browser	**762-1121**
	***PERSPECTO***®, Control Panels (programmable via CODESYS 2)	8.9 cm (3.5")	320 x 240 pixels	1	x	M/S	MODBUS RTU	**762-3035/000-001**
		14.5 cm (5.7")	320 x 240 pixels	2	x	M/S	MODBUS RTU	**762-3057/000-001**
		26.4 cm (10.4")	640 x 480 pixels	2	x	M/S	MODBUS RTU	**762-3104/000-001**
		30.7 cm (12.1")	800 x 600 pixels	2	x	M/S	MODBUS RTU	**762-3121/000-001**
		38.1 cm (15")	1024 x 768 pixels	4	x		MODBUS RTU	**762-3150/000-001**
		38.1 cm (15")	1024 x 768 pixels	4	x	M/S	MODBUS RTU	**762-3150/000-003**

6

Accessories

	Description						Pack. Unit	Item No.
	Memory Cards	CF, 1 GB					1	**758-879/000-000**
		SD, 2 GB					1	**758-879/000-001**
		microSD, 1 GB					1	**758-879/000-002**
	Connection Cables	DVI-D, 3 m					1	**758-879/000-100**
		USB A-B, 3 m					1	**758-879/000-101**
	Mounting Sets	for WP, CP 35					1	**758-879/000-300**
		for WP, CP 57					1	**758-879/000-301**
		for WP, CP 104					1	**758-879/000-302**
		for WP, CP 121					1	**758-879/000-303**
		for CP 150					1	**758-879/000-304**

M: Master, S: Slave

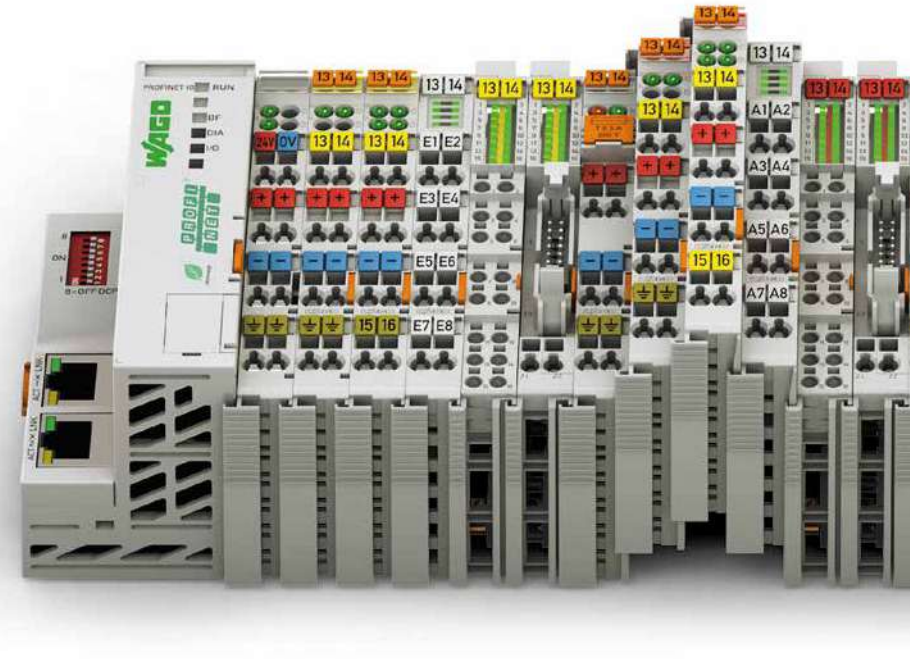




General Specifications

HBT (Half Brightness Time)	50000 hrs.
Operating system	Windows CE
Control elements	Touch, analog, resistive
Power supply	DC 24 V (18 V ... 30 V)
Operating temperature	0°C ... +50°C
Storage temperature	-10 °C ... +60 °C
Relative humidity (without condensation)	10 % ... 85 %
Protection type	Front IP65, back IP20

WAGO-I/O-SYSTEM, 750/753 Series



Maximum Fieldbus Independence

The system's modularity is also reflected in its support for numerous fieldbus systems and ETHERNET standards. Depending on the application, it is possible to choose between fieldbus couplers and communication modules for different protocols.

Clear Identification

Module functionality is identified via integrated or pluggable marker carriers. Terminal assignment and technical data are printed onto the side of the module. The WAGO WSB marker system also allows for module- and channel-related identification.

Worldwide Approvals

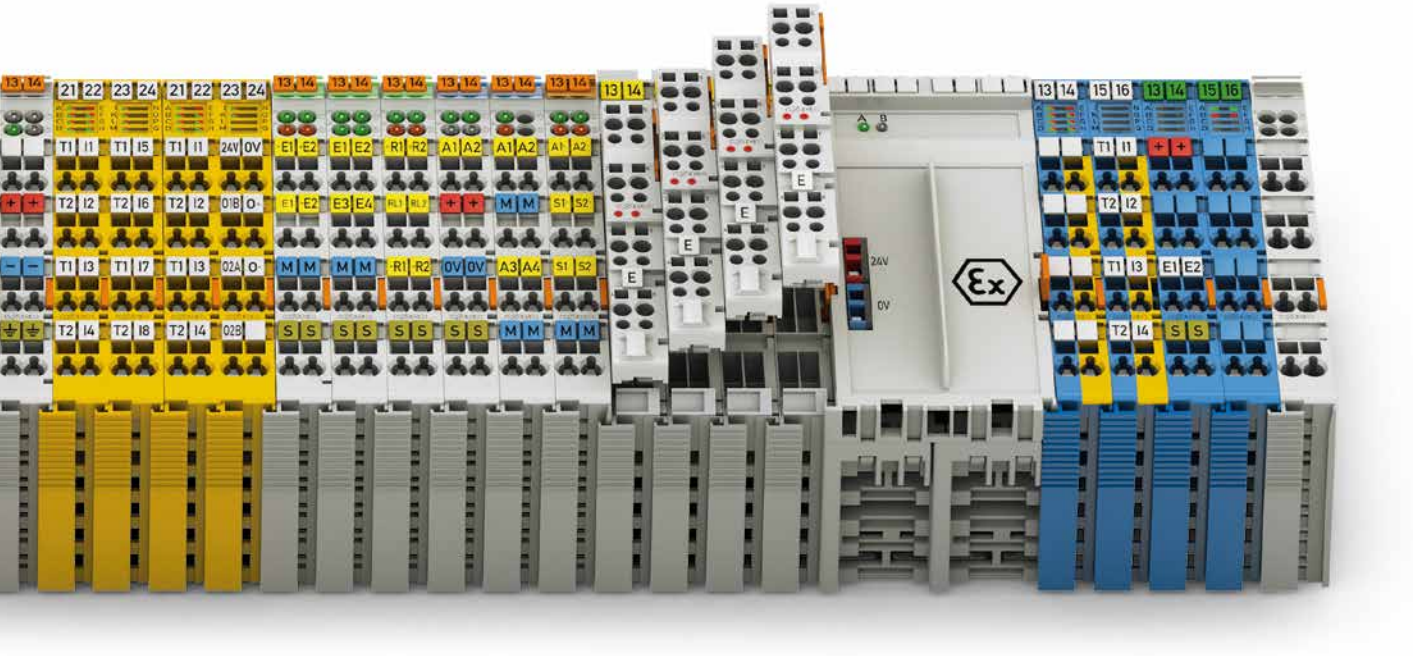
International approvals for building and industrial automation, as well as the process and marine industries, guarantee worldwide use – even under harsh operating conditions, e.g., ATEX, BR-Ex, IECEx, UL, UL ANSI/ISA and marine applications.

Extremely Compact

Our patented mechanical design leads to extremely compact I/O nodes. In fact, select I/O modules can accommodate up to 16 channels in a 12 mm (1/2") wide housing.

- Finely granular I/O modules enable node customization.
- Space-saving design permits high integration density.

IEC 60870-5-101/-103/-104
IEC 61850
IEC 61400-25
DNP3



Pluggable Connections

For ultimate convenience, the 753 Series Modules are 100 % compatible with the 750 Series and feature pluggable connectors. A detachable wiring interface allows an operator to easily replace a module without removing and then rewiring all pre-existing wiring. This convenience virtually eliminates installation errors and saves time – if needed, this can be executed via placeholder modules.

Maximum Flexibility

Each node in the WAGO-I/O-SYSTEM can be configured to meet each channel's requirements, and various potentials and signal types are available (granularity of 1–16 channels). Digital and analog I/O modules, as well as specialty modules, can be freely mixed in the same node. Supply modules permit different voltages within the same node.

Maximum Reliability and Ruggedness

The WAGO-I/O-SYSTEM is engineered and tested for use in the most demanding environmental conditions in accordance with the highest standards, e.g., those required in marine applications. The system is distinguished from other products that are solely intended for industrial use because of:

- Greatly increased vibration rating
- Significantly greater immunity to interference (ESD)
- Lower emission of interference
- Larger voltage fluctuation range
- Improved ruggedness for continuous operation in upper temperature ranges

In addition, CAGE CLAMP® spring pressure connections ensure superior reliability.

Integrated QA measures in the production process and 100 % function testing ensure consistent quality.

Easy to Use

The modular, DIN-rail-mount design allows for easy, tool-free installation. The straightforward design prevents installation errors. In addition, proven CAGE CLAMP® technology offers fast, vibration-proof and maintenance-free connections that are independent of operator skill. Depending on the I/O module's granularity, field peripherals can be directly wired using 1-, 2-, 3- or 4-wire technology.

- **Fieldbus-independent – Support all standard fieldbus protocols and ETHERNET standards**
- **Flexible platform adapts to diverse applications and environments**
- **Tested and approved worldwide**
- **Wide range of accessories for marking system and connection technology**
- **CAGE CLAMP® technology provides vibration-proof, fast and maintenance-free connections**

WAGO-I/O-SYSTEM 750
– Description and Handling –

The Bus Module – The Universal Basic Module

Assembly



Fine modularity for DIN-rail assembly

Power jumper contacts (field side)

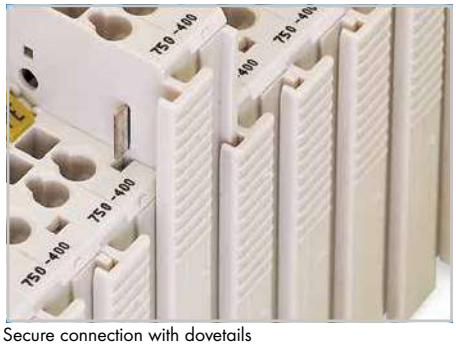


Safe, automatic connection by tinned, self-cleaning slide contacts with high contact safety through make-first, break-last ground contact

Data contacts

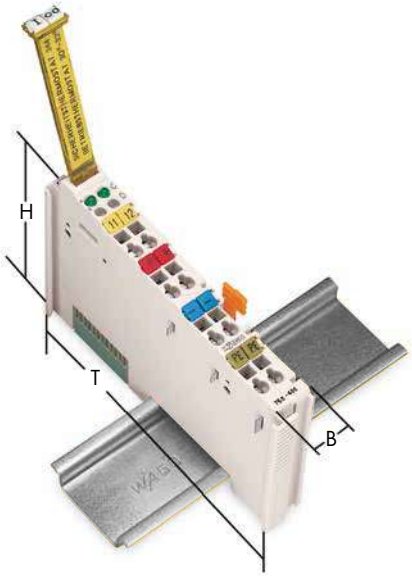


Safe, automatic connection by gold-plated, self-cleaning slide contacts with high contact safety



Secure connection with dovetails

WxH*xL (mm) 12x65x100
***from upper-edge of DIN-35 rail**

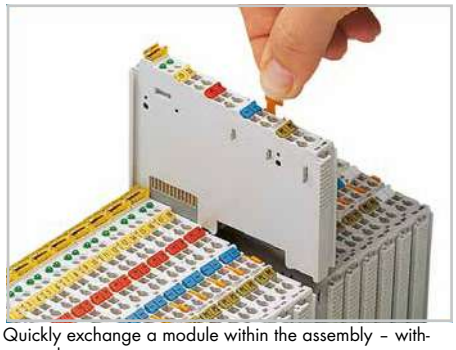


750 Series



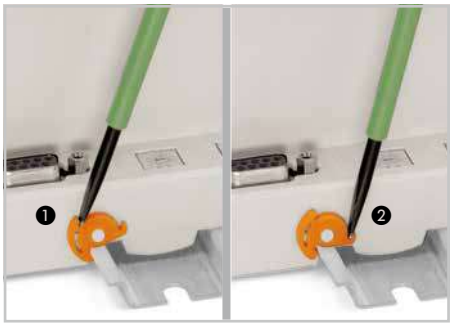
753 Series

Exchange within the assembly



Quickly exchange a module within the assembly – without tools.

Locking the fieldbus coupler



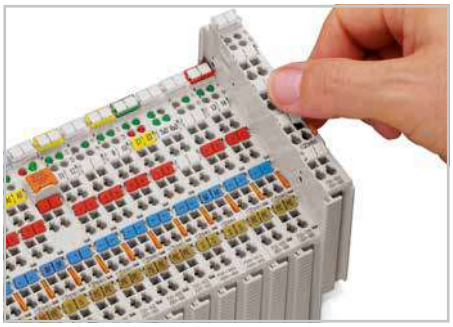
❶ Locking ❷ Releasing

Accessing the programming interface



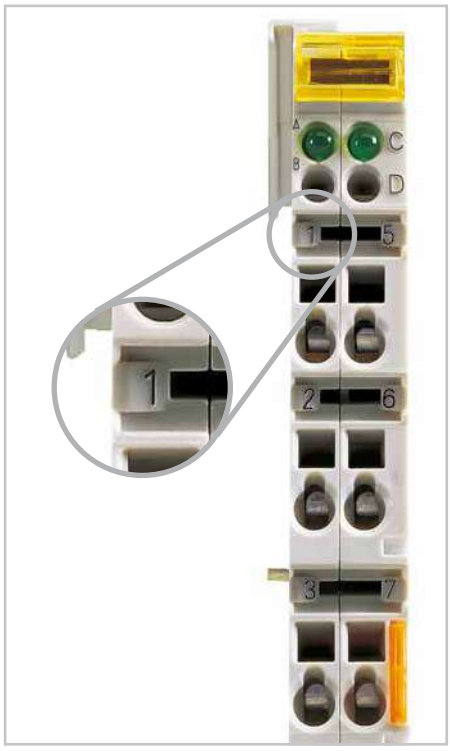
Accessing the programming interface – Programming a fieldbus controller WAGO-I/O-*CHECK*, WAGO-I/O-*PRO* CAA.

End module required

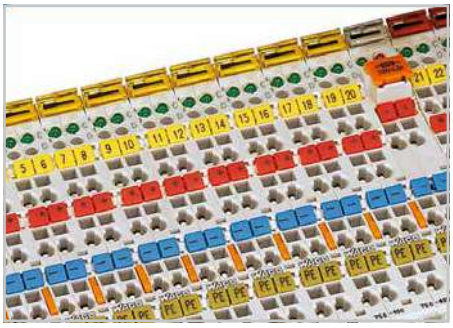


The end module physically terminates the fieldbus node and guarantees safe data transmission.

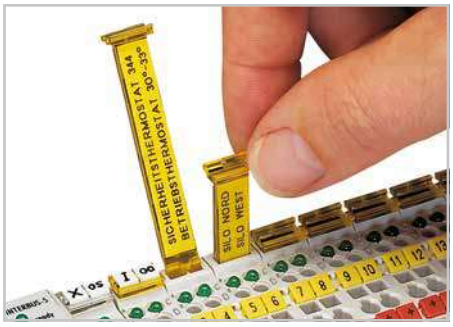
Color-coded for simplicity



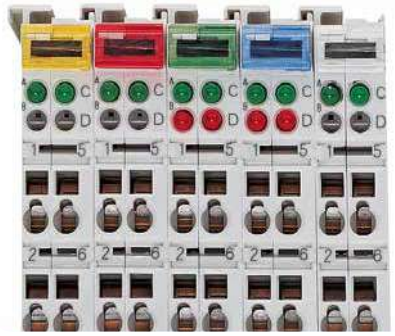
Connection points identified via factory-direct printing.



Marking clamping units via colored miniature WSB markers.



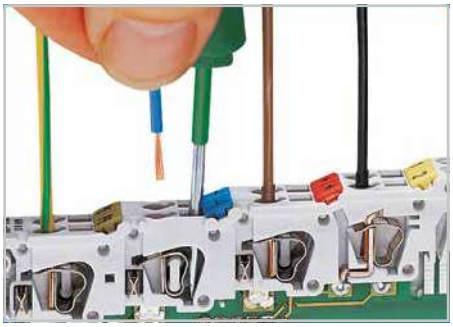
Pullout group marker carriers provide large self-marking areas.



Yellow – **Digital Inputs (DI)**
Red – **Digital Outputs (DO)**
Green – **Analog Inputs (AI)**
Blue – **Analog Outputs (AO)**
Clear – **Supply and Specialty Modules**

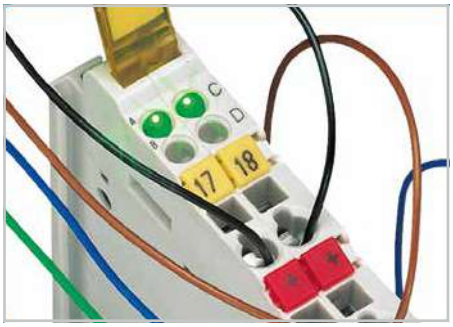
Transparent group marker carriers indicate module type by color.

CAGE CLAMP® connection



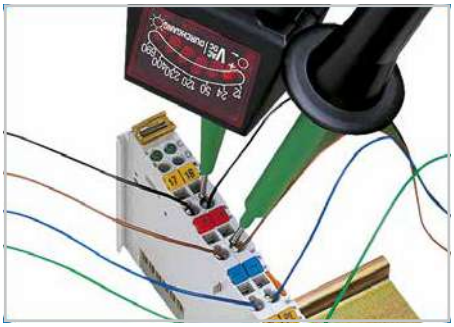
Vibration-proof, fast and maintenance-free connections for conductors ranging 0.08 ... 2.5 mm² (28 ...14 AWG)

Status indicator



LED diagnostic and status indications for safe startup and system control.

Testing



Tracing signals with wired conductors.

Fuse holder

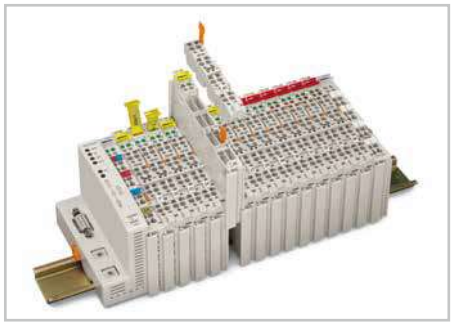


Function at locked position 1:
Power output to I/O group is off.



Function at locked position 2:
Easy fuse replacement via hinged cover.
Use UL-recognized fuses only!

Pluggable connections



753 Series see Full Line Catalog or visit www.wago.com.

6

Controllers
PFC100 and PFC200
750 Series

	Description	CPU	ETHERNET MODBUS TCP	PROFIBUS	CANopen	Others	Item No.
	PFC100 CS 2ETH ECO	Cortex A8, 600 MHz	x				**750-8100**
	PFC100 CS 2ETH	Cortex A8, 600 MHz	x				**750-8101**
	PFC100 CS 2ETH/T Operating temperature: -20 °C ... +60 °C						**750-8101/ 025-000**
	PFC100 CS 2ETH RS	Cortex A8, 600 MHz	x				**750-8102**
	PFC100 CS 2ETH RS/T Operating temperature: -20 °C ... +60 °C						**750-8102/ 025-000**

	Description	CPU	ETHERNET MODBUS TCP	PROFIBUS	CANopen	Others	Item No.
	PFC200 CS 2ETH RS CAN DPS	Cortex A8, 600 MHz	x	S	M/S	MODBUS RTU	**750-8206**
	PFC200 CS 2ETH RS CAN DPS/T Operating temperature: -20 °C ... +60 °C						**750-8206/ 025-000**
	PFC200 CS 2ETH RS CAN DPS TELE/T Operating temperature: -20 °C ... +60 °C	Cortex A8, 600 MHz	x	S	M/S	MODBUS RTU IEC 60870-5 IEC 61850 IEC 61400-25 DNP3	**750-8206/ 025-001**
	PFC200 CS 2ETH RS CAN	Cortex A8, 600 MHz	x		M/S	MODBUS RTU	**750-8204**
	PFC200 CS 2ETH RS CAN/T Operating temperature: -20 °C ... +60 °C						**750-8204/ 025-000**
	PFC200 CS 2ETH CAN	Cortex A8, 600 MHz	x		M/S		**750-8203**
	PFC200 CS 2ETH CAN/T Operating temperature: -20 °C ... +60 °C						**750-8203/ 025-000**
	PFC200 CS 2ETH RS	Cortex A8, 600 MHz	x			MODBUS RTU	**750-8202**
	PFC200 CS 2ETH RS/T Operating temperature: -20 °C ... +60 °C						**750-8202/ 025-000**
	PFC200 CS 2ETH RS Telecontrol/T PFC200 CS 2ETH RS TELE ECO/T Operating temperature: -20 °C ... +60 °C	Cortex A8, 600 MHz	x			MODBUS RTU IEC 60870-5 IEC 61850 IEC 61400-25 DNP3	**750-8202/ 025-001** **750-8202/ 025-002**
	PFC200 CS 2ETH RS 3G*	Cortex A8, 600 MHz	x			MODBUS RTU	**750-8207**
	PFC200 CS 2ETH RS 3G/T* PFC200 CS 2ETH RS 3G Telecontrol/T*	Cortex A8, 600 MHz	x			MODBUS RTU IEC 60870-5 IEC 61850 IEC 61400-25 DNP3	**750-8207/ 025-000** **750-8207/ 025-001**

ETH: ETHERNET, CS: CODESYS, RS: RS-232/-485 Serial Interfaces, TELE: Telecontrol Protocol, T: Ext. Temperature Range, DPS: PROFIBUS Slave, M: Master, S: Slave
*750-8207, 750-8207/025-000 and 750-8207/025-001 are EU-only models.

Note: For PFC200 XTR, see page 177.

CAGE CLAMP®

Controllers
750 Series

	Description	CPU	ETHERNET				PROFIBUS	CANopen	Others	Item No.
			MODBUS TCP	EtherNet/IP	BACnet/IP	KNX IP				
	ETHERNET Controller	32 bits	x	x					IEC 60870-5 IEC 61850 IEC 61400-25 DNP3	**750-880** **750-880/025-000*** **750-880/025-001*** **750-880/025-002*** **750-881**
	ETHERNET Controller	32 bits	x	x					Media Redundancy	**750-885** **750-885/025-000*** **750-882**
	Telecontroller	32 bits	x	x					MODBUS RTU IEC 60870-5 IEC 61850 IEC 61400-25 DNP3	**750-872**
	ETHERNET TCP/IP Controller, RS-232	32 bits	x	x					MODBUS RTU	**750-873**
	ETHERNET Controller	32 bits	x	x						**750-852**
	KNX IP Controller	32 bits	x			x				**750-889**
	BACnet/IP Controller	32 bits	x		x					**750-831**
	BACnet/IP Controller		x		x					**750-830**
	BACnet MS/TP Controller	32 bits	x						BACnet MS/TP	**750-829**
	ETHERNET TCP/IP Controller	16 bits	x							**750-843** **750-842**
	DeviceNet Controller	16 bits							DeviceNet	**750-806**
	MODBUS Controller	16 bits							MODBUS RTU	**750-815/300-000** **750-815/325-000*** **750-816/300-000**
	PROFIBUS Controller	16 bits					S			**750-833** **750-833/025-000***
	CANopen Controller	16 bits						M/S		**750-837** **750-838**
	INTERBUS Controller								INTERBUS	**750-804**

*Operating temperature: -20 °C ... +60 °C

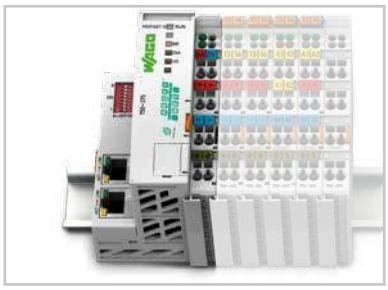
Note: For Controller XTR, see page 177.

6

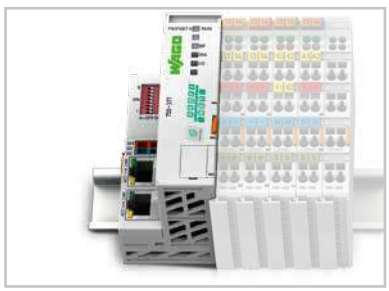
Modular I/O-Systems
Fieldbus Couplers



Housing Design I with System Power Supply	
Dimensions (mm) W x H x L:	51 x 65 x 100 (Height from upper-edge of DIN-rail)
Connection technology:	CAGE CLAMP®
Conductor sizes:	0.08 ... 2.5 mm² / 28 ... 14 AWG
Strip length:	8 ... 9 mm / 0.33 in.



Housing Design II with System Power Supply	
Dimensions (mm) W x H x L:	51 x 65 x 100 (Height from upper-edge of DIN-rail)



Housing Design without System Power Supply	
Dimensions (mm) W x H x L:	50 x 65 x 97 (Height from upper-edge of DIN-rail)
Connection technology:	CAGE CLAMP®
Conductor sizes:	0.08 ... 1.5 mm² / 28 ... 14 AWG
Strip length:	5 ... 6 mm / 0.22 in.



Housing Design ECO	
Dimensions (mm) W x H x L:	50 x 65 x 97 (Height from upper-edge of DIN-rail)
Connection technology:	CAGE CLAMP®
Conductor sizes:	0.08 ... 1.5 mm² / 28 ... 16 AWG
Strip length:	5 ... 6 mm / 0.22 in.

General Specifications

Operating voltage	24 VDC (-25 % ... +30 %)*; *for all marine-certified fieldbus couplers and I/O modules
Operating temperature	0 °C ... +55 °C
Operating temperature for versions with an extended temperature range	-20 °C ... +60 °C
Storage temperature	-25 °C ... +85 °C
Storage temperature for versions with an extended temperature range	-40 °C ... +85 °C
Relative humidity (without condensation)	95 %
Operating altitude	without temperature derating: 0 ... 2,000 m; with temperature derating: 2,000 ... 5,000 m (0.5 K/100 m); max.: 5,000 m
Pollution degree	2 per IEC 61131-2
Vibration resistance	0.5g (4g for all marine-certified fieldbus couplers and I/O modules) per IEC 60068-2-6
Shock resistance	15g per IEC 60068-2-27
EMC immunity to interference	per EN 61000-6-2 / marine applications
EMC emission of interference	per EN 61000-6-3 / EN 61000-6-4 / marine applications
Protection type	IP20
Mounting position	any
Mounting type	on DIN-35 rail
Housing material	polycarbonate, polyamide 6.6
Exposure to pollutants	per IEC 60068-2-42 and IEC 60068-2-43
Maximum pollutant concentration with a relative humidity < 75 %	SO2 ≤ 25 ppm; H2S ≤ 10 ppm
Connection technology	CAGE CLAMP®
Conductor size; strip length for standard I/O modules and fieldbus couplers: 753 Series I/O Modules: ECO Fieldbus Couplers:	 0.08 ... 2.5 mm²/28 ... 14 AWG; 8 ... 9 mm/0.33 in. 0.08 ... 2.5 mm²/28 ... 14 AWG; 9 ... 10 mm/0.37 in. 0.08 mm² ... 1.5 mm²/28 ... 16 AWG; 5 ... 6 mm/0.22 in.
Connection technology	Push-in CAGE CLAMP®
Conductor size; strip length for I/O modules with 16 connection points:	solid: 0.08 ... 1.5 mm²/28 ... 16 AWG, fine-stranded: 0.25 ... 1.5 mm²/22 ... 16 AWG; 8 ... 9 mm/0.33 in.
Current via power jumper contacts	10 A (max.)

Modular I/O-Systems
Fieldbus Couplers
750 Series

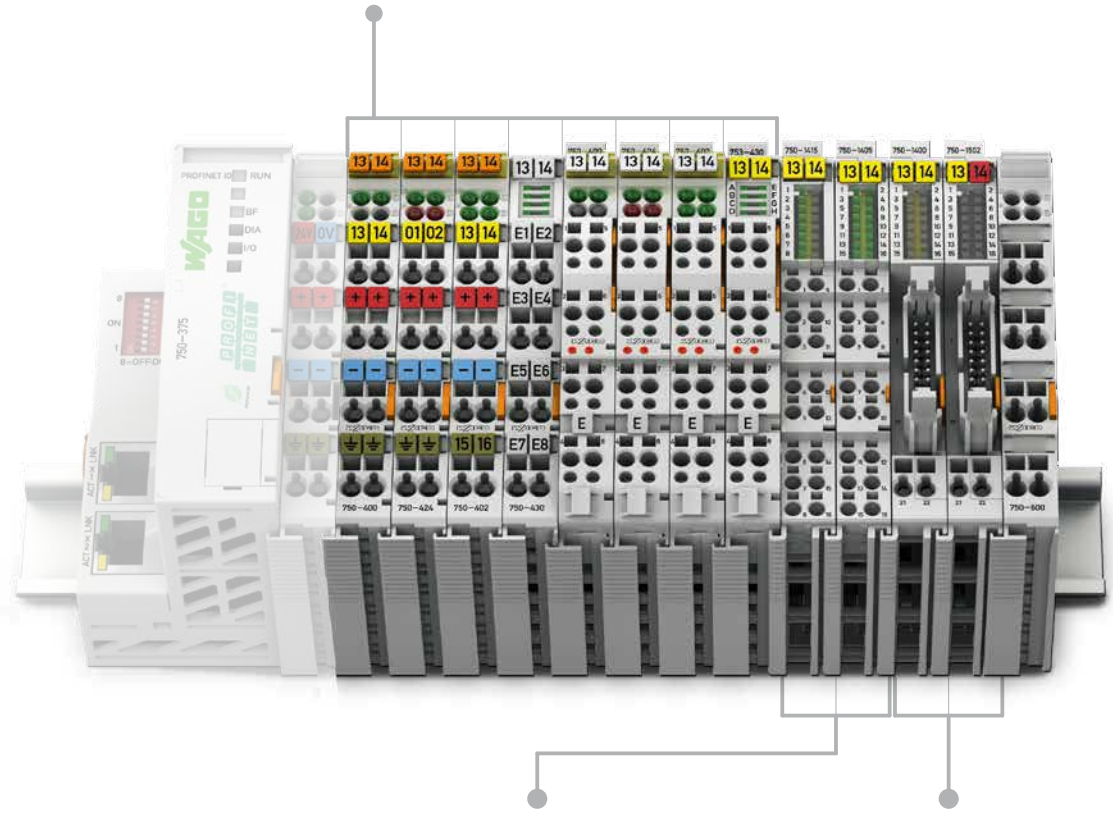
CAGE CLAMP®

Fieldbus System	Housing Design: With System Power Supply		Housing Design: Without System Power Supply	Housing Design: ECO	Description	Item No.
						
PROFINET	☐				**Fieldbus Coupler,** 100 Mbit	**750-340**
	☐				**Fieldbus Coupler,** 2 ports, 100 Mbit	**750-370**
		☐			**Fieldbus Coupler,** advanced, 2 ports	**750-375**
		☐			**Fieldbus Coupler,** advanced, 2 ports, Operating temperature: -20 °C ... +60 °C	**750-375/025-000**
			☐		**Fieldbus Coupler,** advanced, ECO, 2 ports	**750-377**
			☐		**Fieldbus Coupler,** advanced, ECO, 2 ports, Operating temperature: -20 °C ... +60 °C	**750-377/025-000**
PROFIBUS	☐				**DP/FMS Fieldbus Coupler,** 12 Mbaud	**750-303**
	☐				**DP/V1 Fieldbus Coupler,** 12 Mbaud	**750-333**
	☐				**DP/V1 Fieldbus Coupler,** 12 Mbaud, Operating temperature: -20 °C ... +60 °C	**750-333/025-000**
				☐	**DP/ECO Fieldbus Coupler,** 12 Mbaud	**750-343**
	☐				**Fieldbus Coupler with Fiber-Optic Connection,** 1.5 Mbaud	**750-331**
EtherNet/IP MODBUS/TCP			☐		**Fieldbus Coupler,** 10/100 Mbit	**750-352**
MODBUS/TCP	☐				**Fieldbus Coupler,** 10 Mbit	**750-342**
EtherCAT Conformance tested			☐		**Fieldbus Coupler,** 100 Mbit/s	**750-354**
			☐		**Fieldbus Coupler, ID switch,** 100 Mbit/s	**750-354/000-001**
DeviceNet	☐				**Fieldbus Coupler**	**750-306**
				☐	**ECO Fieldbus Coupler**	**750-346**
CANopen	☐				**Fieldbus Coupler**	**750-307**
	☐				**Fieldbus Coupler**	**750-337**
	☐				**Fieldbus Coupler,** Operating temperature: -20 °C ... +60 °C	**750-337/025-000**
	☐				**Fieldbus Coupler,** D-sub	**750-338**
				☐	**ECO Fieldbus Coupler**	**750-347**
				☐	**ECO Fieldbus Coupler,** D-sub	**750-348**
sercos the automation bus	☐				**Fieldbus Coupler,** 2 ports, 100 Mbit	**750-351**
MODBUS	☐				**Fieldbus Coupler,** RS-485 (150 ... 115.2 kbaud)	**750-315/300-000**
	☐				**Fieldbus Coupler,** RS-232 (150 ... 115.2 kbaud)	**750-316/300-000**
INTERBUS	☐				**Fieldbus Coupler,** 500 kbaud	**750-304**
				☐	**ECO Fieldbus Coupler,** 500 kbaud	**750-344**
				☐	**ECO Fieldbus Coupler,** 2 Mbaud	**750-345**
	☐				**Fieldbus Coupler with Fiber-Optic Connection**	**750-334**
CC-Link	☐				**Fieldbus Coupler**	**750-310**

6

Modular I/O-Systems
Digital Input Modules

750/753 Series Housing Design	
Dimensions (mm) W x H x L:	12 x 65 x 100 (Height from upper-edge of DIN-rail)
Connection technology:	CAGE CLAMP®
Conductor sizes:	0.08 … 2.5 mm² / 28 … 14 AWG
Strip length:	750 Series: 8 … 9 mm / 0.33 in. 753 Series: 9 … 10 mm / 0.37 in.



750 Series Housing Design with Push-in CAGE CLAMP® (Up to 16 Connection Points)	
Connection technology:	Push-in CAGE CLAMP®
Conductor sizes:	solid: 0.08 … 2.5 mm² / 28 … 16 AWG fine-stranded: 0.25 … 1.5 mm² / 22 … 16 AWG
Strip length:	8 … 9 mm / 0.33 in.

750 Series Housing Design with Ribbon Cable Connection	
Dimensions (mm) W x H x L:	12 x 73 x 100 (Height from upper-edge of DIN-rail)
Connection technology:	20-pole male connector/ CAGE CLAMP®





PROFIsafe

Modular I/O-Systems
Digital Inputs
750 Series

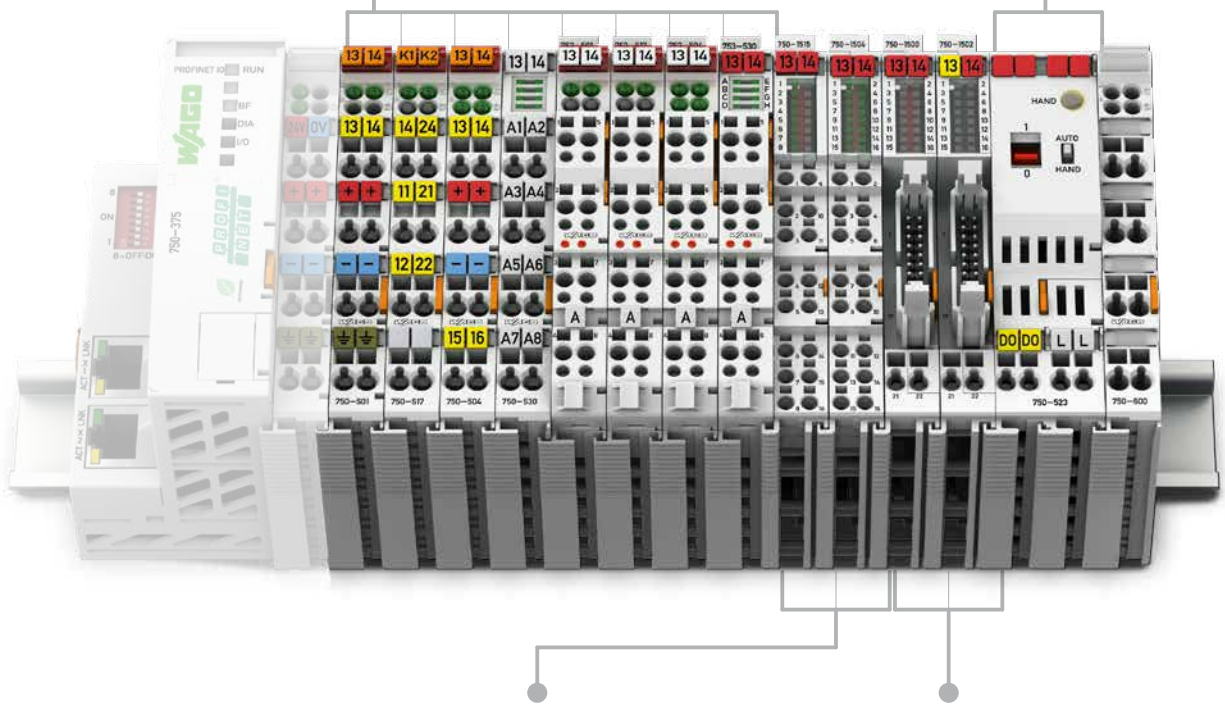
CAGE CLAMP®
PUSH-IN CAGE CLAMP®

Function	2-Channel DI	4-Channel DI	8-Channel DI	8-Channel DIO	16-Channel DI	Description	Item No.		
							Standard	/T Operating Temperature: -20 °C ... +60 °C	Pluggable (Connector, Page 178)
5 VDC		□				0.2 ms, high-side switching	750-414		
5/12 VDC			□			(5 ... 14 VDC) 0.2 ms, high-side switching			753-434
24 VDC	□					3.0 ms, high-side switching	750-400	750-400/025-000	753-400
	□					0.2 ms, high-side switching	750-401		753-401
	□					3.0 ms, high-side switching, proximity switch	750-410		753-410
	□					0.2 ms, high-side switching, proximity switch	750-411		753-411
	□					3.0 ms, high-side switching, diagnostics, acknowledgment	750-418		753-418
	□					3.0 ms, high-side switching, diagnostics	750-421		753-421
	□					NAMUR, proximity switch per DIN EN 60947-5-6	750-425		753-425
	□					Intruder detection	750-424		753-424
		□				3.0 ms, high-side switching	750-402	750-402/025-000	753-402
		□				0.2 ms, high-side switching	750-403		753-403
		□				3.0 ms, high-side switching	750-432		753-432
		□				0.2 ms, high-side switching	750-433		753-433
		□				Pulse extension, 10 ms	750-422		753-422
		□				3.0 ms, low-side switching	750-408	750-408/025-000	753-408
		□				0.2 ms, low-side switching	750-409		753-409
		□				3.0 ms, 3-conductor	750-1420		
		□				0.2 ms, 3-conductor	750-1421		
		□				3.0 ms, low-side switching, 3-conductor	750-1422		
		□				0.2 ms, low-side switching, 3-conductor	750-1423		
			□			3.0 ms, high-side switching	750-430	750-430/025-000	753-430
			□			0.2 ms, high-side switching	750-431		753-431
			□			3.0 ms, low-side switching	750-436		753-436
			□			0.2 ms, low-side switching	750-437		753-437
			□			3.0 ms, 2-conductor	750-1415		
			□			0.2 ms, 2-conductor	750-1416		
			□			3.0 ms, low-side switching, 2-conductor	750-1417		
			□			0.2 ms, low-side switching, 2-conductor	750-1418		
				□		0.5 A, high-side switching, ribbon cable	750-1502		
				□		0.5 A, high-side switching	750-1506		
					□	3.0 ms, high-side switching, ribbon cable	750-1400		
					□	3.0 ms, high-side switching	750-1405		
					□	0.2 ms, high-side switching	750-1406		
					□	3.0 ms, low-side switching, ribbon cable	750-1402		
					□	3.0 ms, low-side switching	750-1407		
24 V AC/DC		□				20 ms	750-415		753-415
		□				50 ms, power jumper contacts	750-423		753-423
42 V AC/DC		□				20 ms	750-428		753-428
48 VDC	□					3.0 ms, high-side switching	750-412		753-412
60 VDC	□					3.0 ms, high-side switching			753-429
110 VDC	□					3.0 ms, high-side or low-side switching	750-427		753-427
220 VDC	□					3.0 ms, high-side switching	750-407		
120 VAC	□					10 ms, high-side switching	750-406		753-406
120/230 VAC		□				(120 ... 230 VAC) 10 ms, high-side switching			753-440
230 VAC	□					10 ms, high-side switching	750-405		753-405
PTC			□			Connection to PTC thermistors per DIN 44081/44082	750-1425		
Functional Safety							See page 174		
Ex i							See page 175		

Modular I/O-Systems
Digital Output Modules

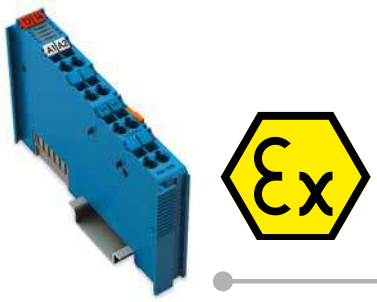
750/753 Series Housing Design	
Dimensions (mm) W x H x L:	12 x 65 x 100 (Height from upper-edge of DIN-rail)
Connection technology:	CAGE CLAMP®
Conductor sizes:	0.08 … 2.5 mm² / 28 … 14 AWG
Strip length:	750 Series: 8 … 9 mm / 0.33 in. 753 Series: 9 … 10 mm / 0.37 in.

750 Series Specialty Housing	
Dimensions (mm) W x H x L:	24 x 65 x 100 (Height from upper-edge of DIN-rail)



750 Series Housing Design with Push-in CAGE CLAMP® (Up to 16 Connection Points)	
Connection technology:	Push-in CAGE CLAMP®
Conductor sizes:	solid: 0.08 … 2.5 mm² / 28 … 16 AWG fine-stranded: 0.25 … 1.5 mm² / 22 … 16 AWG
Strip length:	8 … 9 mm / 0.33 in.

750 Series Housing Design with Ribbon Cable Connection	
Dimensions (mm) W x H x L:	12 x 73 x 100 (Height from upper-edge of DIN-rail)
Connection technology:	20-pole male connector/ CAGE CLAMP®





PROFIsafe

Modular I/O-Systems
Digital Outputs
750 Series

CAGE CLAMP®
PUSH-IN CAGE CLAMP®

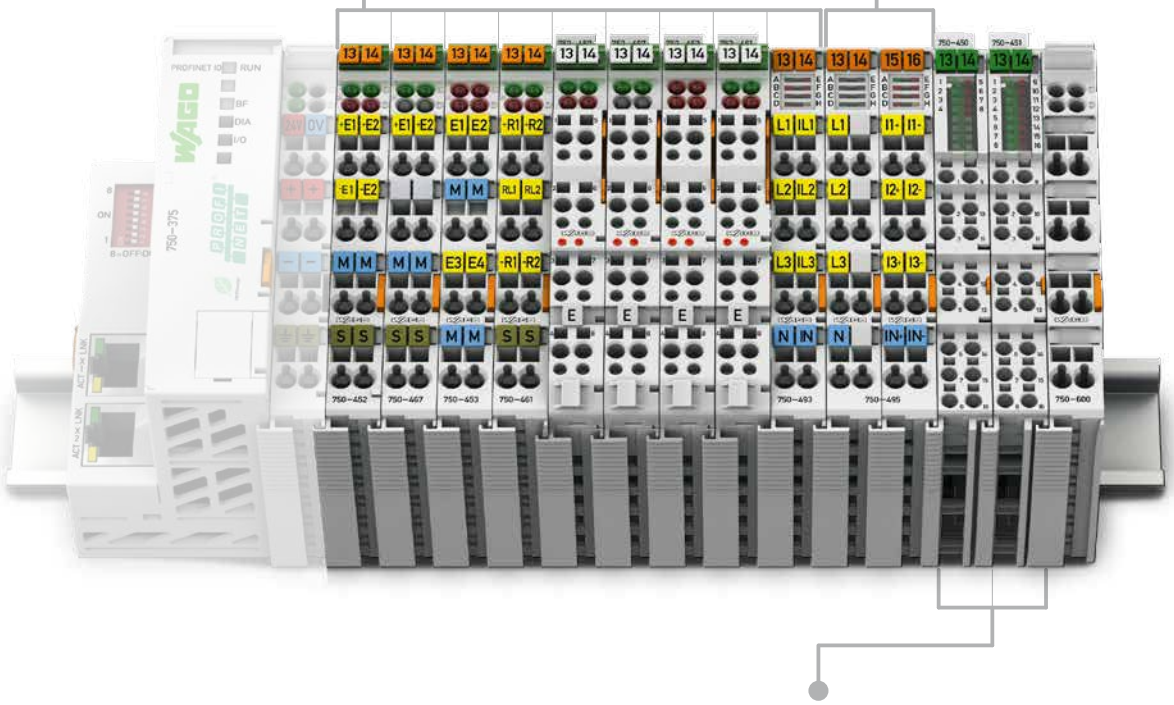
Function	1-Channel DO	2-Channel DO	4-Channel DO	8-Channel DO	8-Channel DIO	16-Channel DO	Description	Item No.		
								Standard	/T Operating Temperature: -20 °C ... +60 °C	Pluggable (Connector, Page 178)
5 VDC			■				High-side switching	750-519		
5/12 VDC				■			(5 ... 14 VDC) 1 A, short-circuit-protected, high-side switching	750-534		753-534
24 VDC		■					0.5 A, short-circuit-protected, high-side switching	750-501		753-501
		■					0.5 A, short-circuit-protected, high-side switching, interference-free	750-501/000-800		753-501/000-800
		■					2.0 A, short-circuit-protected, high-side switching	750-502		753-502
		■					2.0 A, short-circuit-protected, high-side switching, interference-free	750-502/000-800		753-502/000-800
		■					0.5 A, diagnostics, short-circuit-protected, high-side switching	750-506		753-506
		■					0.5 A, diagnostics, short-circuit-protected, high-side switching, interference-free	750-506/000-800		
		■					2.0 A, diagnostics, short-circuit-protected, high-side switching	750-508		753-508
		■					2.0 A, diagnostics, short-circuit-protected, high-side switching, interference-free	750-508/000-800		
			■				0.5 A, short-circuit-protected, high-side switching	750-504	750-504/025-000	753-504
			■				0.5 A, short-circuit-protected, high-side switching, interference-free	750-504/000-800	750-504/025-800	
			■				0.5 A, 2-conductor, short-circuit-protected, high-side switching	750-531		753-531
			■				0.5 A, 2-conductor, short-circuit-protected, high-side switching, interference-free	750-531/000-800		753-531/000-800
			■				Short-circuit-protected, low-side switching	750-516		753-516
			■				0.5 A, 2-conductor, diagnostics, short-circuit-protected, high-side switching	750-532		
				■			0.5 A, short-circuit-protected, high-side switching	750-530	750-530/025-000	753-530
				■			0.5 A, short-circuit-protected, low-side switching	750-536		753-536
				■			0.5 A, diagnostics, short-circuit-protected, high-side switching	750-537		753-537
				■			0.5 A, 2-conductor	750-1515		
				■			0.5 A, low-side switching, 2-conductor	750-1516		
					■		0.5 A, high-side switching, ribbon cable	750-1502		
					■		0.5 A, high-side switching	750-1506		
						■	0.5 A, high-side switching, ribbon cable	750-1500		
						■	0.5 A, high-side switching	750-1504		
						■	0.5 A, low-side switching, ribbon cable	750-1501		
						■	0.5 A, low-side switching	750-1505		
120/230 VAC			■				(120 ... 230 VAC) 0.25 A, high-side switching			753-540
230 VAC/DC		■					0.3 A, solid-state relay	750-509		753-509
230 VAC		■					0.5 A, solid-state relay (3 A < 30 ms)	750-522		
Relay		■					2 changeover contacts, potential-free, 125 VAC, 0.5 A	750-514		753-514
		■					2 changeover contacts, potential-free, 230 VAC, 1 A	750-517		753-517
		■					2 make contacts, non-floating, 230 VAC, 2 A	750-512		753-512
		■					2 make contacts, potential-free, 230 VAC, 2 A	750-513		753-513
		■					2 make contacts, potential-free, 230 VAC, 2 A, without power jumper contacts	750-513/000-001		
	■						1 make contact, potential-free, manual operation, 230 VAC, 16 A	750-523		
Functional Safety								See page 174		
Ex i								See page 175		

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Modular I/O-Systems
Analog Input Modules

750/753 Series Housing Design	
Dimensions (mm) W x H x L:	12 x 65 x 100 (Height from upper-edge of DIN-rail)
Connection technology:	CAGE CLAMP®
Conductor sizes:	0.08 … 2.5 mm² / 28 … 14 AWG
Strip length:	750 Series: 8 … 9 mm / 0.33 in. 753 Series: 9 … 10 mm / 0.37 in.

750 Series Housing Design, Double Width	
Dimensions (mm) W x H x L:	24 x 65 x 100 (Height from upper-edge of DIN-rail)



750 Series Housing Design with Push-in CAGE CLAMP® Connections (Up to 16 Connection Points)	
Connection technology:	Push-in CAGE CLAMP®
Conductor sizes:	solid: 0.08 … 2.5 mm² / 28 … 16 AWG fine-stranded: 0.25 … 1.5 mm² / 22 … 16 AWG
Strip length:	8 … 9 mm / 0.33 in.



Modular I/O-Systems
Analog Inputs
750 Series

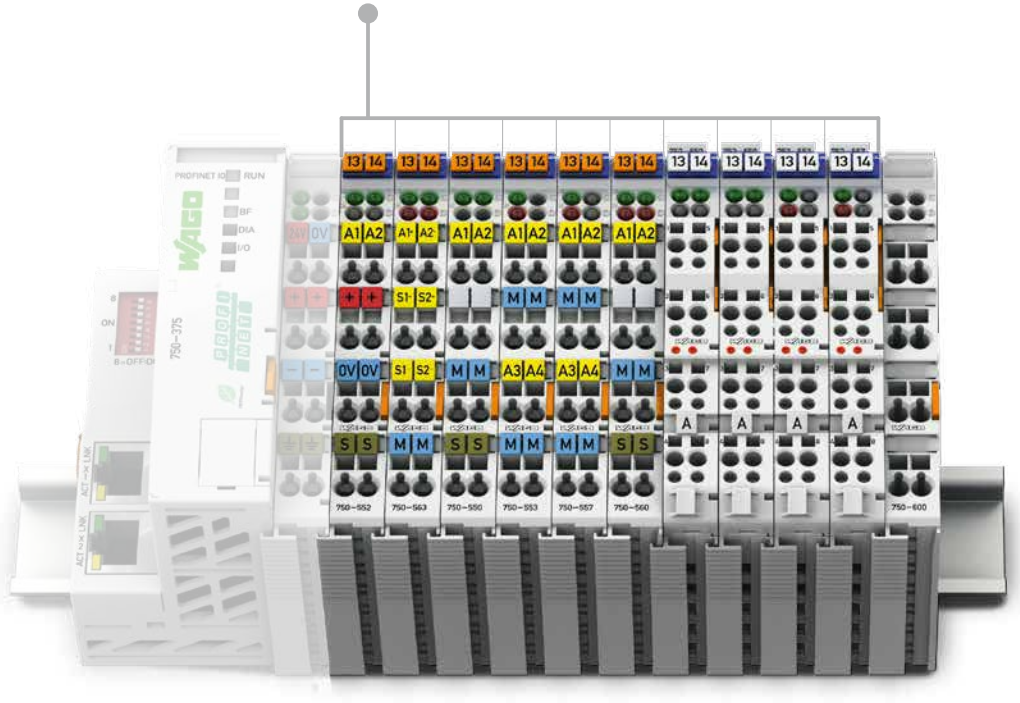
CAGE CLAMP®
PUSH-IN CAGE CLAMP®

Function	1-Channel AI	2-Channel AI	4-Channel AI	8-Channel AI	Description	Item No. Standard	/S5 or /S7 Customized Data Format	/T Operating Temperature: -20 °C ... +60 °C	Pluggable (Connector, Page 178)
0 ... 20 mA		■			Differential input	750-452	750-452/000-200		753-452
		■			Single-ended	750-465		750-465/025-000	753-465
		■			Single-ended, short-circuit-protected Single-ended, short-circuit-protected, 60 Hz	750-470 750-470/005-000			
		■			Single-ended, 16 bits	750-472	750-472/000-200		753-472
		■			Single-ended, 16 bits, 60 Hz	750-472/005-000			
		■			Differential input	750-480			753-480
		■			Differential input, synchronous	750-480/000-001			
			■		Single-ended	750-453			753-453
4 ... 20 mA		■			Differential input	750-454	750-454/000-200	750-454/025-000	753-454
		■			Single-ended	750-466	750-466/000-200	750-466/025-000	753-466
		■			Single-ended, short-circuit-protected Single-ended, short-circuit-protected, 60 Hz	750-473 750-473/005-000			
		■			Single-ended, 16 bits	750-474	750-474/000-200		753-474
		■			Single-ended, 16 bits, 60 Hz	750-474/005-000			
		■			Differential input	750-492			753-492
		■			Single-ended, 16 bits, HART	750-482	750-482/000-300	750-482/025-000	753-482
			■		Single-ended	750-455		750-455/025-000	753-455
			■		Single-ended	750-455/020-000			
0/4 ... 20 mA				■	Single-ended	750-496			
0 ... 1 A		■			Differential input	750-475			753-475
0 ... 5 A		■			Differential input	750-475/020-000			
± 10 V		■			Differential input	750-456	750-456/000-200		753-456
		■			Differential input	750-479			753-479
		■			Differential input, synchronous	750-479/000-001			
		■			Single-ended, 16 bits	750-476	750-476/000-200		753-476
			■		Single-ended	750-457		750-457/025-000	753-457
0 ... 10 V		■			Differential input	750-477			753-477
		■			Single-ended	750-467	750-467/000-200		753-467
		■			Single-ended, 16 bits	750-478			753-478
		■			Single-ended, 16 bits, 60 Hz	750-478/005-000			
			■		Single-ended	750-468	750-468/000-200	750-468/025-000	
			■		Single-ended	750-459			753-459
± 10 V/0 ... 10 V				■	Single-ended	750-497			
0 ... 30 V		■			Differential input	750-483			753-483
Resistance Sensors		■			Pt100 / RTD / NTC 20 kΩ	750-461	750-461/000-200	750-461/025-000	753-461
		■			Pt100 / configurable	750-461/003-000			753-461/003-000
		■			NTC 20k	750-461/020-000			
		■			Resistance measurement (other variants)	750-461/000-00x			
			■		Pt100 / RTD Pt1000 / RTD Ni1000 TK6180 / RTD	750-460 750-460/000-003 750-460/000-005			
			■		4AI RTD (building automation)	750-463			
		■	■		RTD, configurable	750-464			
			■		NTC, configurable	750-464/020-000			
			■		4AI RTD, configurable	750-450			
				■	8AI RTD, configurable	750-451			
Thermocouples		■			K/Diagnostics	750-469	750-469/000-200		753-469
		■			J/Diagnostics	750-469/000-006			
		■			Configurable	750-469/003-000			753-469/003-000
		■			S/; T/; ±120 mV/; E/; L/Diagnostics	750-469/000-00x			
				■	8AI Thermocouple, configurable	750-458			
Analog Specialty Functions	■				Resistor bridges (strain gauge) Resistor bridges (strain gauge), 125 ms	750-491 750-491/000-001			
		■			3-phase power measurement module (1A) (5A)	750-493 750-493/000-001			
		■			3-phase power measurement module (480V/1A)	750-494		750-494/025-000	
		■			3-phase power measurement module (480V/5A)	750-494/000-001		750-494/025-001	
		■			3-phase power measurement module (690V/1A) (690V/5A) (690V/RC)	750-495 750-495/000-001 750-495/000-002			
Exi						See page 175			

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Modular I/O-Systems
Analog Output Modules

750/753 Series Housing Design	
Dimensions (mm) W x H x L:	12 x 65 x 100 (Height from upper-edge of DIN-rail)
Connection technology:	CAGE CLAMP®
Conductor sizes:	0.08 … 2.5 mm² / 28 … 14 AWG
Strip length:	750 Series: 8 … 9 mm / 0.33 in. 753 Series: 9 … 10 mm / 0.37 in.





Modular I/O-Systems
Analog Outputs
750 Series

CAGE CLAMP®

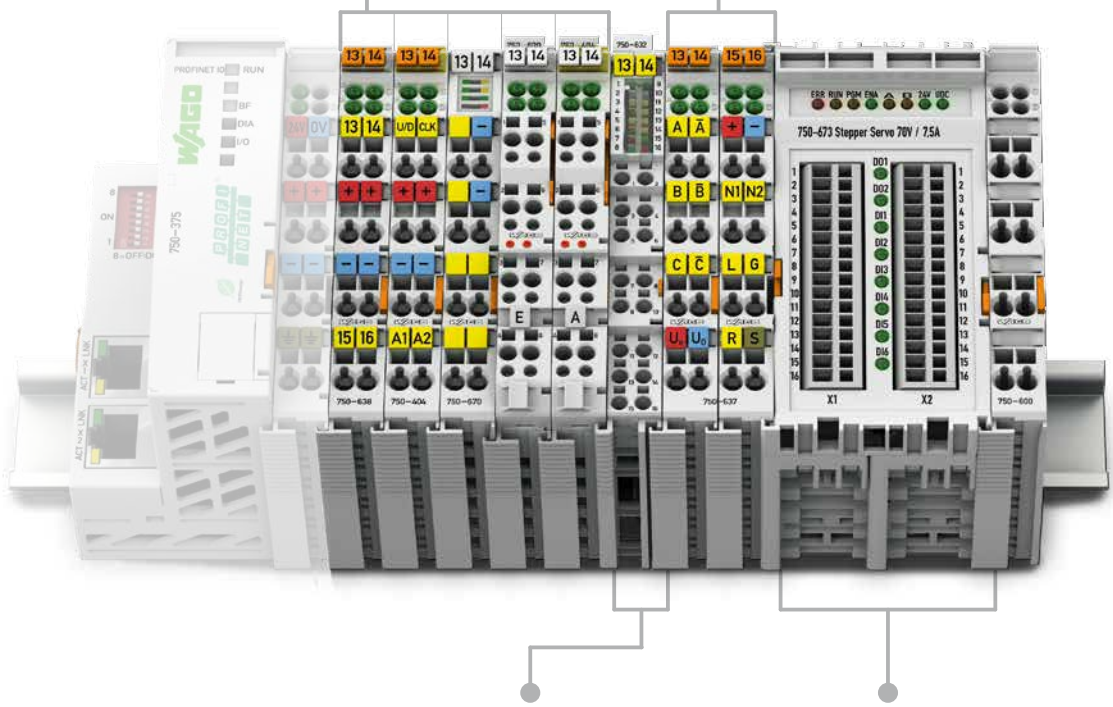
Function	2-Channel AO	4-Channel AO	Description	Item No.			
				Standard	/S5 Customized Data Format	/T Operating Temperature: -20 °C ... +60 °C	Pluggable (Connector, Page 178)
0 ... 20 mA	■		12 bits	750-552	750-552/000-200	750-552/025-000	753-552
		■	12 bits	750-553			753-553
4 ... 20 mA	■		12 bits	750-554	750-554/000-200	750-554/025-000	753-554
		■	12 bits	750-555			753-555
0/4 ... 20 mA	■		16 bits, configurable	750-563			
0 ... 10 V	■		12 bits	750-550	750-550/000-200		753-550
	■		10 bits, 10 mA	750-560			
		■	12 bits	750-559		750-559/025-000	753-559
± 10 V	■		12 bits	750-556	750-556/000-200		753-556
		■	12 bits	750-557			753-557
0 V / ±10 V	■		16 bits, configurable	750-562			
Exi				See page 175			

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Modular I/O-Systems
Function and Technology Modules

750/753 Series Housing Design	
Dimensions (mm) W x H x L:	12 x 65 x 100 (Height from upper-edge of DIN-rail)
Connection technology:	CAGE CLAMP®
Conductor sizes:	0.08 … 2.5 mm² / 28 … 14 AWG
Strip length:	750 Series: 8 … 9 mm / 0.33 in. 753 Series: 9 … 10 mm / 0.37 in.

750 Series Housing Design, Double Width	
Dimensions (mm) W x H x L:	24 x 65 x 100 (Height from upper-edge of DIN-rail)



750 Series Housing Design with Push-in CAGE CLAMP® Connections (Up to 16 Connection Points)	
Dimensions (mm) W x H x L:	12 x 65 x 100 (Height from upper-edge of DIN-rail)
Connection technology:	Push-in CAGE CLAMP®
Conductor sizes:	solid: 0.08 … 2.5 mm² / 28 … 16 AWG fine-stranded: 0.25 … 1.5 mm² / 22 … 16 AWG
Strip length:	8 … 9 mm / 0.33 in.

Specialty Housing	
Dimensions (mm) W x H x L:	51 x 70 x 100 (Height from upper-edge of DIN-rail)
Connection technology:	CAGE CLAMP®
Conductor sizes:	0.08 … 1.5 mm² / 28 … 14 AWG
Strip length:	5 … 6 mm / 0.22 in.



Modular I/O-Systems
Function and Technology Modules
750 Series

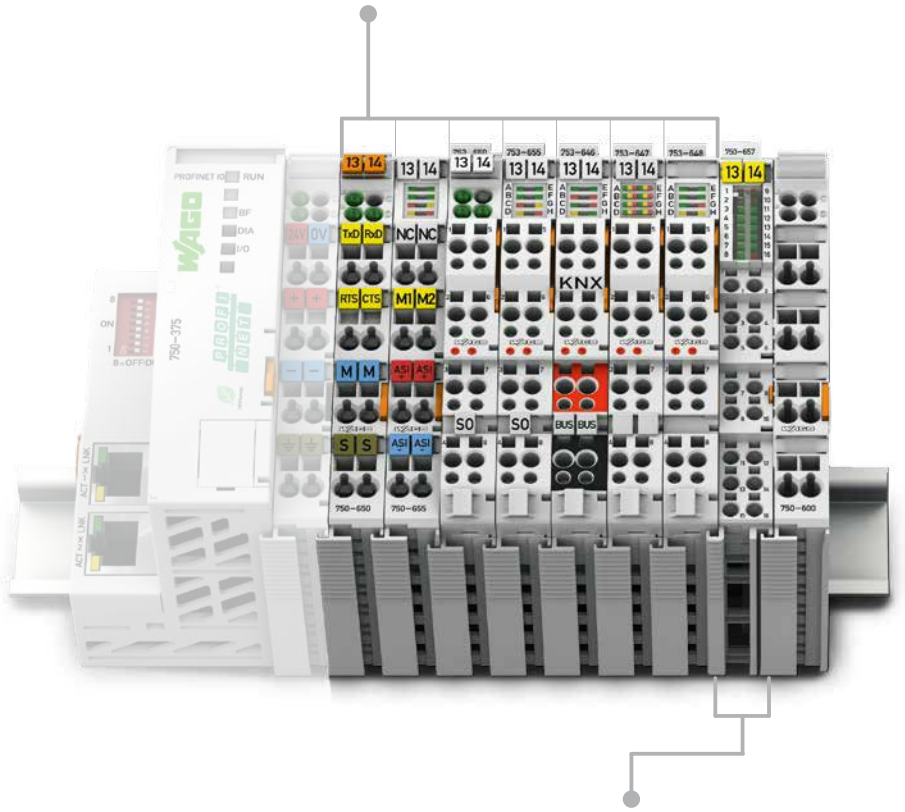
CAGE CLAMP®
PUSH-IN CAGE CLAMP®

Function	Description	Item No.		
		Standard	/T Operating Temperature: -20 °C ... +60 °C	Pluggable (Connector, Page 178)
Counter Modules	Up/Down Counter, 24 VDC, 100 kHz	**750-404**		**753-404**
	Up Counter/Enable Input	**750-404/000-001**		
	Peak-Time Counter	**750-404/000-002**		
	Frequency Counter 0.1 Hz ... 100 kHz	**750-404/000-003**		**753-404/000-003**
	Up/Down Counter, Switch Output	**750-404/000-004**		
	2 Up Counters, 16 bits, 5 kHz	**750-404/000-005**		**753-404/000-005**
	Up/Down Counter, 24 VDC, 16 bits, 500 Hz	**750-638**	**750-638/025-000**	**753-638**
Pulse Width Output Modules	2-channel pulse width, 24 VDC, short-circuit-protected, high-side switching	**750-511**		**753-511**
	2-channel frequency, 2 kHz	**750-511/000-001**		
	2-channel pulse width, 100 Hz	**750-511/000-002**		
Distance and Angle Measurement Modules	SSI Transmitter Interface, 24 bits, 125 kHz, gray	**750-630**		
	SSI Transmitter Interface, 24 bits, 125 kHz, bin.	**750-630/000-001**		
	SSI Transmitter Interface, 24 bits, 250 kHz, bin.	**750-630/000-002**		
	SSI Transmitter Interface, 24 bits, 125 kHz, gray, status	**750-630/000-004**		
	SSI Transmitter Interface, 15 bits, 125 kHz, gray, status	**750-630/000-005**		
	SSI Transmitter Interface, 24 bits, 250 kHz, gray	**750-630/000-006**		
	SSI Transmitter Interface, 25 bits, 125 kHz, gray	**750-630/000-008**		
	SSI Transmitter Interface, 13 bits, 250 kHz, bin.	**750-630/000-009**		
	SSI Transmitter Interface, 25 bits, 125 kHz, bin.	**750-630/000-011**		
	SSI Transmitter Interface, 13 bits, 125 kHz, gray	**750-630/000-012**		
	SSI Transmitter Interface, 29 bits, 125 kHz, bin.	**750-630/000-013**		
	SSI Transmitter Interface, configurable	**750-630/003-000**		
	Incremental Encoder Interface	**750-631/000-004**		
	Incremental Encoder Interface, cam outputs	**750-637**		
	Incremental Encoder Interface, 24 V, 32 bits, differential	**750-637/000-001**		
	Incremental Encoder Interface, 24 V, 32 bits, single-ended	**750-637/000-002**		
	Incremental Encoder Interface, RS-422, 32 bits, single interpreter	**750-637/000-003**		
	Incremental Encoder Interface, 24 V, 32 bits, single-ended, cam outputs	**750-637/000-004**		
	Digital Impulse Interface	**750-635**		**753-635**
RTC Module	RTC Module, real-time clock	**750-640**		
Condition Monitoring	2-Channel, Vibration Velocity/Bearing Condition Monitoring VIB I/O Module	**750-645**		
Stepper Modules	Stepper Controller, RS-422, 24 V, 20 mA	**750-670**		
	Stepper Controller, 24 V, 1.5 A	**750-671**		
	Stepper Controller, 70 V, 7,5 A, 6 IN, 2 OUT	**750-672**		
	Servo Stepper Controller, 70 V, 7.5 A, 6 IN, 2 OUT	**750-673**		
DC Drive Controllers	DC Drive Controller, 24 V, 5 A	**750-636**	**750-636/025-000**	
	DC Drive Controller, 24 V, 5 A, external motor voltage	**750-636/000-700**		
	DC Drive Controller, 24 V, 5 A, interference-free	**750-636/000-800**		
Proportional Valve Module	Proportional Valve Module	**750-632**		
Ex i		See page 175		

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Modular I/O-Systems
Communication Modules

750/753 Series Housing Design	
Dimensions (mm) W x H x L:	12 x 65 x 100 (Height from upper-edge of DIN-rail)
Connection technology:	CAGE CLAMP®
Conductor sizes:	0.08 … 2.5 mm² / 28 … 14 AWG
Strip length:	750 Series: 8 … 9 mm / 0.33 in. 753 Series: 9 … 10 mm / 0.37 in.



750 Series Housing Design with Push-in CAGE CLAMP® Connections (Up to 16 Connection Points)	
Connection technology:	Push-in CAGE CLAMP®
Conductor sizes:	solid: 0.08 … 2.5 mm² / 28 … 16 AWG fine-stranded: 0.25 … 1.5 mm² / 22 … 16 AWG
Strip length:	8 … 9 mm / 0.33 in.

Modular I/O-Systems
Communication Modules
750 Series

CAGE CLAMP®
PUSH-IN CAGE CLAMP®

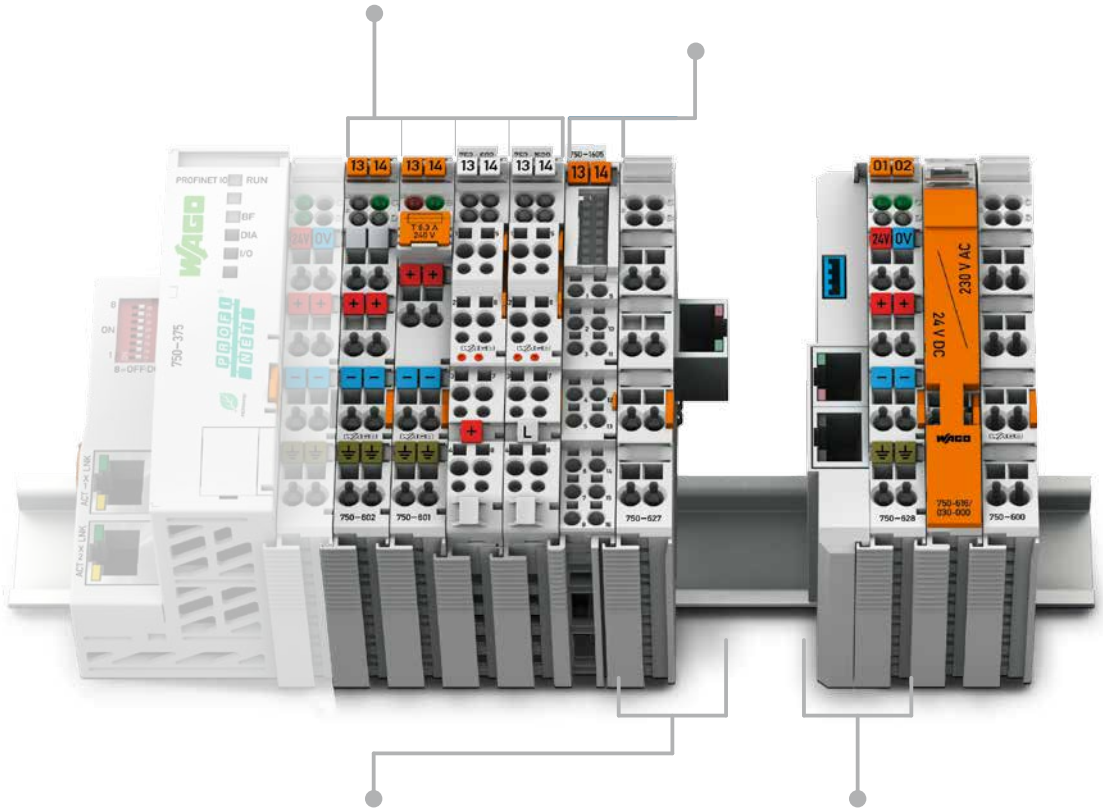
Function	Description	Item No.		
		Standard	/T Operating Temperature: -20 °C ... +60 °C	Pluggable (Connector, Page 178)
Serial Interfaces	Serial Interface RS-232 C, 9600, N, 8, 1	**750-650**		**753-650**
	Serial Interface RS-232 C, 9600, N, 8, 1, 5 bytes	**750-650/000-001**		
	Serial Interface RS-232 C, 9600, E, 7, 2	**750-650/000-002**		
	Serial Interface RS-232 C, 9600, E, 8, 1	**750-650/000-006**		
	Serial Interface RS-232 C, 19200, N, 8, 1	**750-650/000-010**		
	Serial Interface RS-232 C, 19200, E, 8, 1	**750-650/000-011**		
	Serial Interface RS-232 C, 2400, N, 8, 1	**750-650/000-012**		
	Serial Interface RS-232 C, 4800, E, 8, 1	**750-650/000-015**		
	Serial Interface RS-232 C, configurable	**750-650/003-000**		**753-650/003-000**
	Serial Interface RS-485, 9600, N, 8, 1	**750-653**	**750-653/025-018**	**753-653**
	Serial Interface RS-485, 9600, E, 7, 2	**750-653/000-001**		
	Serial Interface RS-485, 9600, E, 8, 1	**750-653/000-002**		
	Serial Interface RS-485, 19200, N, 8, 1, 5 bytes	**750-653/000-006**		
	Serial Interface RS-485, configurable	**750-653/003-000**	**750-653/025-000**	**753-653/003-000**
	Serial Interface RS-232 C/RS-485	**750-652**	**750-652/025-000**	**753-652**
	TTY Interface, 9600, N, 8, 1	**750-651**		
	TTY Interface, 9600, E, 8, 1	**750-651/000-002**		
Bluetooth®	*Bluetooth®* RF Transceiver	**750-644**		
EnOcean	Radio Receiver Module	**750-642**		
KNX	KNX/EIB/TP1 Module			**753-646**
DALI	DALI Multi-Master Module			**753-647**
LON	LON FTT Module			**753-648**
MP-Bus	MP-Bus Master Module	**750-643**		
AS-Interface Master	AS-Interface Master	**750-655**		**753-655**
IO-Link Master	IO-Link Master	**750-657**		
CAN Gateway	CAN Gateway	**750-658**		
Data Exchange	Data Exchange Module	**750-654**		

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Modular I/O-Systems
Supply and Segment Modules

750/753 Series Housing Design	
Dimensions (mm) W x H x L:	12 x 65 x 100 (Height from upper-edge of DIN-rail)
Connection technology:	CAGE CLAMP®
Conductor sizes:	0.08 … 2.5 mm² / 28 … 14 AWG
Strip length:	750 Series: 8 … 9 mm / 0.33 in. 753 Series: 9 … 10 mm / 0.37 in.

750 Series Housing Design with Push-in CAGE CLAMP® Connections (Up to 16 Connection Points)	
Connection technology:	Push-in CAGE CLAMP®
Conductor sizes:	solid: 0.08 … 2.5 mm² / 28 … 16 AWG fine-stranded: 0.25 … 1.5 mm² / 22 … 16 AWG
Strip length:	8 … 9 mm / 0.33 in.



Specialty Housing for Internal Data Bus Extension End Module	
Dimensions (mm) W x H x L:	24 x 65 x 100 (Height from upper-edge of DIN-rail)

Specialty Housing for Internal Data Bus Extension Coupler Module	
Dimensions (mm) W x H x L:	25 x 65 x 100 (Height from upper-edge of DIN-rail)



Modular I/O-Systems
Supply and Segment Modules
750 Series

CAGE CLAMP®
PUSH-IN CAGE CLAMP®

Function	Description	Item No.		
		Standard	/T Operating Temperature: -20 °C ... +60 °C	Pluggable (Connector, Page 178)
Supply Modules	24 VDC, passive	**750-602**	**750-602/025-000**	**753-602**
24 VDC	24 VDC, max. 6.3 A, without diagnostics, with fuse carrier	**750-601**		
	24 VDC, max. 6.3 A, with diagnostics, with fuse carrier	**750-610**		
	24 VDC, 5 ... 15 V	**750-623**		
24 VDC, Passive	24 VDC	**750-613**		
24 VAC	24 VAC, with fuse carrier	**750-617**		
120 VAC	120 VAC, max. 6.3 A, without diagnostics, with fuse carrier	**750-615**		
230 VAC	0 ... 230 V AC/DC, without diagnostics, passive	**750-612**		**753-612**
	230 VAC, max. 6.3 A, without diagnostics, with fuse carrier	**750-609**		
	230 VAC, max. 6.3 A, with diagnostics, with fuse carrier	**750-611**		
DALI Multi-Master DC/DC Converter	DALI Multi-Master DC/DC Converter			**753-620**
Field-Side Connection Modules	24 VDC	**750-603**		**753-603**
	0 VDC	**750-604**		**753-604**
	0 ... 230 V AC/DC	**750-614**		**753-614**
	16+, 24 VDC	**750-1605**		
	16-, 0 VDC	**750-1606**		
	8+/8-, 24/0 VDC	**750-1607**		
Filter Modules	Field-Side Power Supply Filter (Surge), high isolation ❶	**750-624/020-000**		
	Field-Side Power Supply Filter (Surge), high isolation, without power jumper contacts, also suitable as a supply module ❶	**750-624/020-001**		
	Field-Side Power Supply Filter (Surge) ❸ ❺	**750-624**		
	Field-Side Power Supply Filter (Surge), without power jumper contacts, also suitable as a supply module ❸ ❺	**750-624/000-001**		
	Power Supply Filter (Surge), high isolation ❷	**750-626/020-000**	**750-626/025-001**	
	Power Supply Filter (Surge) ❹ ❺	**750-626**	**750-626/025-000**	
Internal Data Bus Extension	End Module	**750-627**		
	Coupler Module	**750-628**		
Spacer Modules	Binary Spacer Module	**750-622**		
	Spacer Module, active			**753-1629**
	Spacer Module, active, without power jumper contacts			**753-1629/000-001**
	Spacer Module, passive			**753-629/020-000**
Separation Modules	Separation Module	**750-616**		
	Separation Module, labeled	**750-616/030-000**		
	Separation Module with Power Jumper Contacts	**750-621**		
End Modules	End Module for internal data bus completion	**750-600**	**750-600/025-000**	
Ex i		See page 175		

❶ Required for marine-certified operation with 750 Series I/O Modules
❷ Required for marine-certified operation with both 750 Series Couplers and Programmable Controllers
❸ Required for marine-certified operation with an Ex i Supply Module
❹ Required for marine-certified operation with both 758 Series IPCs and 750-625 Ex i Supply Module
❺ Required when using the 750 Series PROFIsafe Modules

Modular I/O-Systems
Functional safety
750 Series

CAGE CLAMP®

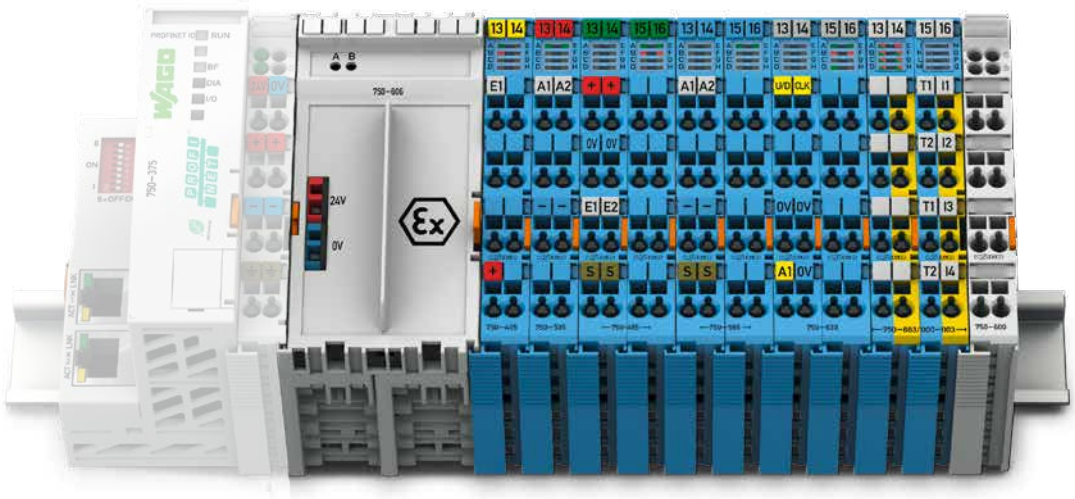
Function	Description	Item No.	
		Standard	Pluggable (Connector, Page 178)
PROFIsafe Digital Input Modules	**PROFIsafe V1.3, 8 FDI 24 V**	**750-660/000-001**	
	PROFIsafe V2 iPar, 4 FDI 24 V	**750-661/000-003**	**753-661/000-003**
	PROFIsafe V2 iPar, 8 FDI 24 V	**750-662/000-003**	**753-662/000-003**
PROFIsafe Digital Input/Output Modules	**PROFIsafe V1.3, 4 FDO 0.5 A, 4 FDI 24 V**	**750-665/000-001**	
	PROFIsafe V2 iPar, 4 FDI/2 FDO 24 V/2 A	**750-666/000-003**	**753-666/000-003**
	PROFIsafe V2 iPar, 4 FDI/4 FDO 24 V/2 A	**750-667/000-003**	**753-667/000-003**
Intrinsically Safe Digital Input Module with Inputs for Functional Safety	**PROFIsafe V2 iPar, 4 F Ex i DI 24V**	**750-663/000-003**	
Ex i Supply Modules	The intrinsically safe digital input module with inputs for functional safety (750-663/000-003) shall only be operated using an Ex i 24 VDC power supply (e.g., 750-606, 750-625/000-001)! General information (e.g., installation regulations) on explosion protection is available in the WAGO-I/O-SYSTEM 750 manuals!		
	24 VDC 1.0 A Ex i Supply Module, with diagnostics	**750-606**	
	24 VDC 1.0 A Ex i Supply Module	**750-625/000-001**	
Filter Modules	The mixed operation of safe and conventional modules streamlines system configuration. For increased electromagnetic immunity (EMC standard), WAGO offers compact power supply filter modules (Section 4.10). Specific power supply features must be considered, which are described in detail in the corresponding manuals.		
	24 VDC Field-Side Power Supply Filter (Surge), high isolation	**750-624/020-000**	
	24 VDC Power Supply Filter (Surge), high isolation	**750-626/020-000**	



Modular I/O-Systems
Intrinsically Safe Ex i Modules
750 Series

CAGE CLAMP®

Function	Description	Item No.
Ex i Supply Modules	**24 VDC 1.0 A Ex i Supply Module, with diagnostics**	**750-606**
	24 VDC 1.0 A Ex i Supply Module	**750-625/000-001**
Digital Input Ex i Modules for Proximity Switches per EN 60947-5-6	**1 DI NAMUR, Ex i**	**750-435**
	2 DI NAMUR, Ex i	**750-438**
	8 DI NAMUR, Ex i	**750-439**
Intrinsically Safe Digital Input Module with Inputs for Functional Safety	**PROFIsafe V2 iPar, 4 F Ex i DI 24V**	**750-663/000-003**
Digital Output Ex i Modules	**2 DO Ex i,** short-circuit-protected, high-side switching	**750-535**
	2 DO Relay Output Ex i Module, isolated outputs, 2 changeover contacts	**750-538**
Analog Input Ex i Modules	**2 AI Ex i** 4 ... 20 mA, single-ended	**750-485**
	2 AI Ex i 4 ... 20 mA, single-ended, HART	**750-484**
	2 AI Ex i RTD	**750-481/003-000**
	2 AI Ex i TC	**750-487/003-000**
Analog Output Ex i Modules	**2 AO Ex i** 0 ... 20 mA	**750-585**
	2 AO Ex i 4 ... 20 mA	**750-586**
Ex i Function Module	**Ex i Up/Down Counter** NAMUR, 50 kHz	**750-633**



WAGO-I/O-SYSTEM – 750 XTR Series
General Product Information



Taking it to the eXTReme – The standard for 750 XTR
Instantly recognizable by its dark gray modules, the WAGO-I/O-SYSTEM 750 XTR's unique features make it ideal for extreme environments or applications.

The WAGO-I/O-SYSTEM 750 XTR features outstanding characteristics: It is extremely temperature-resistant, immune to interferences, as well as insensitive to vibrations and impulse voltages. This is what makes 750 XTR the first choice for demanding applications including:

- Marine systems and onshore/offshore installations
- Renewable energy systems (wind, photovoltaic and biogas plants)
- Transformer stations and power distribution
- Petrochemical Industry
- Water and wastewater treatment systems
- Custom machine engineering
- Railway applications

eXTReme temperatures
-40 °C ... +70 °C

eXTReme isolation
up to 5 kV of impulse voltage
DIN EN 60870-2-1

eXTReme vibrations
up to 5g acceleration
DIN EN 60068-2-6

General Specifications

Operating voltage	24 VDC Under laboratory conditions +15 °C ... +35 °C: 18 ... 31.2 V (17.4 ... 31.2 V)[1] -40 °C ... +55 °C: 18 ... 28.8 V (17.4 ... 28.8 V)[1] +55 °C ... +70 °C: 18 ... 26.4 V (17.4 ... 26.4 V)[1] [1] including residual ripple of 15 %
Operating temperature	-40 °C ... +70 °C
Storage temperature	-40 °C ... +85 °C
Relative humidity	Max. 95 % short-term condensation per IEC EN 60721-3-3, Class 3K7 (excluding wind-driven precipitation, water and ice formation)
Operating altitude	without temperature derating: 0 ... 2,000 m; with temperature derating: 2,000 ... 5,000 m (0.5 K/100 m); max.: 5,000 m
Pollution degree	2 per IEC 61131-2
Immunity to impulse voltages	Per EN 60870-2-1 Modules ≤ 50 V: 510 VAC / 775 VDC; Modules > 50 V: 2.5 kVAC / 3.5 VDC Isolation: Rated impulse voltage Modules ≤ 50 V: 1 kV (Class VW1 per EN 60870-2-1) Modules > 50 V: 5 kV (Class VW3 per EN 60870-2-1) Surge: Modules ≤ 50 V: 1 kV (L – L) / 2 kV (L – E) Modules > 50 V: 2 kV (L – L) / 4 kV (L – E) Overvoltage category: III
Vibration resistance	5g per IEC 60068-2-6, EN 60870-2-2, IEC 60721-3-1, IEC 60721-3-3, EN 61131-2
Shock resistance	15g/11 ms/half-sine/1,000 shocks per IEC 60068-2-27 25g/6 ms/1,000 shocks per IEC60068-2-27
EMC immunity to interference	EN 61000-6-1, EN 61000-6-2, EN 61131-2 marine applications, EN 50121-3-2, EN 50121-4 EN 50121-5, EN 60255-26, EN 60870-2-1 EN 61850-3, IEC 61000-6-5, IEEE 1613, VDEW: 1994
EMC emission of interference	EN 61000-6-3 and EN 61000-6-4, EN 61131-2 EN 60255-26, marine applications EN 60870-2-1 (industrial and residential areas) EN 61850-3 (industrial and residential areas) EN 50121-3-2, EN 50121-4, EN 50121-5
Protection type	IP20
Mounting position	Horizontal (standing/lying) or vertical
Mounting type	on DIN-35 rail
Housing material	polycarbonate, polyamide 6.6
Exposure to pollutants	per IEC 60068-2-42 and IEC 60068-2-43
Maximum pollutant concentration with a relative humidity < 75 %	SO2 ≤ 25 ppm; H2S ≤ 10 ppm
Connection technology	CAGE CLAMP® (for standard I/O modules and fieldbus couplers)
Conductor size; strip length for standard I/O modules and fieldbus couplers: ECO Fieldbus Couplers:	0.25 ... 2.5 mm²/24 ... 14 AWG; 8 ... 9 mm/0.33 in. 0.25 ... 1.5 mm²/24 ... 16 AWG; 5 ... 6 mm/0.22 in.
Connection technology	Push-in CAGE CLAMP® (for I/O modules with 16 connection points)
Conductor size; strip length for I/O modules with 16 connection points:	0.25 ... 1.5 mm²/24 ... 16 AWG; 8 ... 9 mm/0.33 in.
Current via power jumper contacts	10 A (max.)

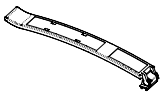
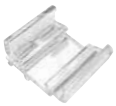
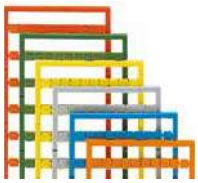
- No air conditioning required
  - Compact footprint
  - Lower energy and maintenance costs
- Can be used in unshielded areas
- Maximum system uptime
- Install close to vibrating and shock-generating system components
- CAGE CLAMP® connection technology for vibration-proof, fast and maintenance-free connections

CAGE CLAMP®
PUSH-IN CAGE CLAMP®

Modular I/O-Systems
750 XTR Series

	Description		Item No.
	**PFC200 XTR**	PFC200 CS 2ETH RS CAN DPS / XTR	**750-8206/040-000**
		PFC200 CS 2ETH RS CAN DPS TELE / XTR	**750-8206/040-001**
		PFC200 CS 2ETH RS / XTR	**750-8202/040-000**
		PFC200 CS 2 ETH RS TELE / XTR	**750-8202/040-001**
	**Fieldbus Controllers**	ETHERNET Controller / XTR	**750-880/040-000**
		ETHERNET Controller TELE / XTR	**750-880/040-001**
		CANopen Controller / XTR	**750-838/040-000**
	**Fieldbus Couplers**	PROFIBUS DP/V1 12 Mbd / XTR	**750-333/040-000**
		ETHERNET / XTR	**750-352/040-000**
		CANopen D-Sub / XTR	**750-338/040-000**
	**Digital Input Modules**	8 DI 24 VDC 3.0 ms, 2-wire connection / XTR	**750-1415/040-000**
		8 DI 24 VDC 0.2 ms, 2-wire connection / XTR	**750-1416/040-000**
		16 DI 24 VDC 3.0 ms / XTR	**750-1405/040-000**
		2 DI 220 VDC 3.0 ms / XTR	**750-407/040-000**
		2 DI 60 VDC 3.0 ms / XTR	**750-429/040-001**
		2 DI 110 VDC 3.0 ms / XTR	**750-427/040-000**
	**Digital Output Modules**	2 DO 24 VDC 2.0 A, diagnostics / XTR	**750-508/040-000**
		8 DO 24 VDC 0.5 A, 2-wire connection / XTR	**750-1515/040-000**
		2 DO 230 VAC 1.0 A, relay 2 CO, potential-free / XTR	**750-517/040-000**
	**Analog Input Modules**	4 AI 0 ... 20 mA, single-ended / XTR	**750-453/040-000**
		4 AI 4 ... 20 mA, single-ended / XTR	**750-455/040-000**
		2 AI 4 ... 20 mA, differential input NE43 / XTR	**750-492/040-001**
		4 AI 0 ... 10 VDC, single-ended / XTR	**750-468/040-000**
		4 AI ±10 VDC, single-ended / XTR	**750-457/040-000**
		2/4 AI RTD, configurable / XTR	**750-464/040-000**
		2 AI Thermocouple, configurable / XTR	**750-469/040-000**
		3-Phase Power Measurement Module, 690 V, 1 A / XTR	**750-495/040-000**
		3-Phase Power Measurement Module, 690 V, 5 A / XTR	**750-495/040-001**
		3-Phase Power Measurement Module, 690 V, Rogowski coil / XTR	**750-495/040-002**
	**Analog Output Modules**	2 AO 0/4 ... 20 mA / 6 ... 18 VDC, configurable / XTR	**750-563/040-000**
		4 AO ±10 VDC / XTR	**750-557/040-000**
		4 AO 0 ... 10 VDC / XTR	**750-559/040-000**
	**Communication Modules**	RS-232/RS-485, configurable / XTR	**750-652/040-000**
	**Supply and Segment Modules**	24 VDC Power Supply / XTR	**750-602/040-000**
		AC/DC Power Supply, 0 ... 230 V / XTR	**750-612/040-000**
		24 VDC Bus Power Supply	**750-613/040-000**
		24 VDC Field-Side Power Supply Filter (Surge) / XTR	**750-624/040-001**
		24 VDC Power Supply Filter (Surge) / XTR	**750-626/040-000**
		Field-Side Connection Module 16+ / XTR	**750-1605/040-000**
		Field-Side Connection Module 16- / XTR	**750-1606/040-000**
		Separation Module / XTR	**750-616/040-000**
		End Module / XTR	**750-600/040-000**

Modular I/O-Systems
Accessories
750/753 Series

	Description	Item No.	Pack. Unit
	Pluggable Connector, 753 Series, light gray	**753-110**	25
	Pluggable Connector, 753 Series, yellow	**753-120**	25
	Coding Elements, 753 Series, red	**753-150**	100
	Marker Carrier for 750/753 Series, transparent	**750-103**	50
	Marker Carrier for 750/753 Series, 4 LEDs	**750-106**	50
	Marker Carrier for 750/753 Series, 8 LEDs	**750-107**	50
	Markers for Group Marker Carrier, white	**750-100**	1 sheet
	Miniature WSB Quick Marking System, plain ○ white yellow red blue gray orange light green green violet	**248-501** **248-501/000-002** **248-501/000-005** **248-501/000-006** **248-501/000-007** **248-501/000-012** **248-501/000-017** **248-501/000-023** **248-501/000-024**	5 cards
	Interface modules for system wiring, relay modules with miniature switching relay, with flat cable connector per DIN 41651 8 channels/10 poles 16 channels/20 poles	See pages 232-234	1
	WAGO Ribbon Cables, connect I/O modules to interface modules 20/20 20/2 x 10	**706-3057/300-100** **706-7753/302-000**	1
	Operating Tools		
	with a partially insulated shaft, type 1, (2.5 x 0.4) mm blade	**210-719**	1
	with a partially insulated shaft, type 2, (3.5 x 0.5) mm blade	**210-720**	1

Modular I/O-Systems
Accessories
750/753 Series

	Description		Item No.	Pack. Unit
	PROFIBUS Fieldbus Connector with D-sub connector, 9-pole, suitable for an S7 PLC		**750-971**	1
	PROFIBUS Fieldbus Connector with D-sub male and female connectors, 9-pole		**750-972**	1
	ETHERNET RJ-45 Fieldbus Connector, IP20, CAT 5e		**750-975**	1
	PROFINET RJ-45 Fieldbus Connector, IP20		**750-976**	1
	PROFIBUS Fieldbus Connector with D-sub male connector, 9-pole		**750-960**	1
	CANopen Fieldbus Connector with D-sub female connector, 9-pole		**750-963**	1
	INTERBUS Fieldbus Connector (IN) with D-sub female connector, 9-pole		**750-961**	1
	INTERBUS Fieldbus Connector (OUT) with D-sub male connector, 9-pole		**750-962**	1
	CC-Link Fieldbus Connector with D-sub male connector, 9-pole		**750-965**	1
	*Bluetooth*® Adapter, radio connection between PC and coupler/controller		**750-921**	1
	WAGO USB Communication Cable, connection between PC and coupler/controller (suitable for *JUMPFLEX*®)	2.5 m 5 m	**750-923** **750-923/000-001**	1
	*Bluetooth*® ETHERNET Gateway		**758-915**	1
	WLAN ETHERNET Gateway	2.4 GHz 5 GHz	**758-916** **758-917**	1
	Magnetic-Mount Antenna, GSM 900/1800		**758-910**	1
	Magnetic-Mount Antenna, WLAN/*Bluetooth*® 2.4 Ghz		**758-912**	1

6

WAGO *SPEEDWAY 767*
For Cabinet-Free Data Acquisition

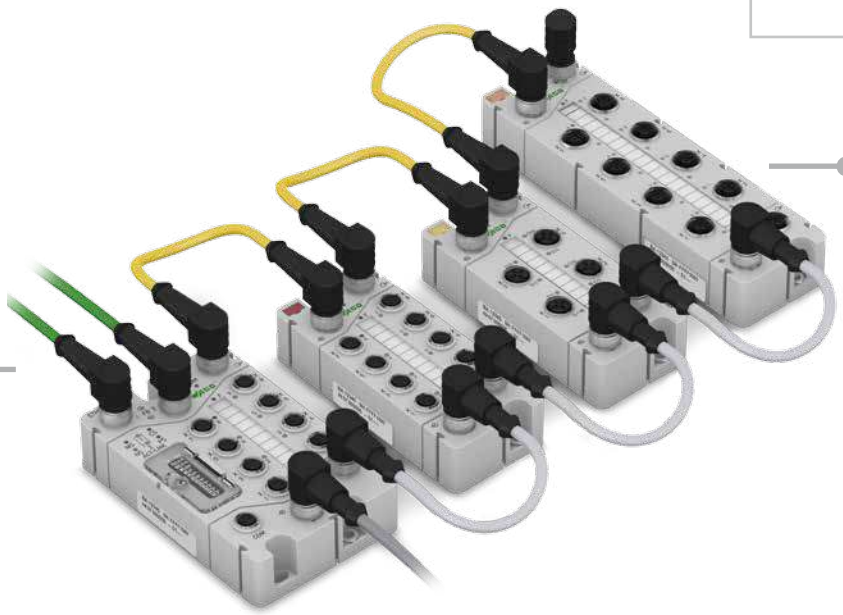
Where previously discrete wiring was once required, fieldbuses now communicate between the control and field levels. Depending on the application, cabinet-free automation systems help minimize costs for planning, start-up and maintenance.

In addition to requiring a high degree of protection, a robust design and standardized connection technology, there is an increasing demand for advanced IP67 features that were once reserved only for IP20 systems, including:

- Real-time capable (isochronous data acquisition/output)
- Parameterizable
- Diagnostic capable
- Upgradable

Connect the cabinet directly to the field level without sacrificing functionality – *SPEEDWAY* perfectly tailors machines to meet specific, decentralized needs. Configuration is both easy and flexible, with changes being made safely and quickly (plug & play).





- Fully encapsulated for harsh environmental conditions
- Fieldbus-independent – Support all standard fieldbus protocols and ETHERNET standards
- Real-time capability up to isochronous mode for selected ETHERNET-based fieldbuses
- Exclusive use of standard pluggable connectors
- Flexible mounting options
- ATEX/IEC Ex certificate for Zone 2/22

General Specifications	
Operating voltage	24 VDC (-25 % ... +30 %)
Operating temperature	-25 °C ... +60 °C; temperature change 3 K/s
Storage temperature	-40 °C ... +85 °C
Relative humidity (without condensation)	5 ... 95 %
Operating altitude	-1000 ... 2000 m; Air pressure: 1080 ... 795 hPa
Altitude at storage/transport	-1000 ... 3500 m; Air pressure: 1080 ... 660 hPa
Free fall	≤ 1 m per EN 61131-2
Pollution degree	3 per IEC 60664 (IEC 61131)
Protection class	III per IEC 60536 (VDE 0106, Part 1)
Vibration resistance	5g per IEC 60068-2-6
Shock resistance	Short-term: 50g/11 ms/half-sine per IEC 60068-2-27 Long-term: 30g/6 ms/half-sine per IEC 60068-2-29
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Protection type	IP67 (NEMA 6&6P) per DIN 40050 (EN 60529)
Mounting position	any
Housing material	Polyamide (PA), light gray (RAL7035); Makrolon (address switch cover), transparent; Flammability per UL94-V0; halogen, silicon-free; Potting: Polyurethane (PUR), halogen/silicon-free
UV resistance	1,000 h UV continuous light per DIN EN ISO 4892-2B
Maximum contaminant concentration	SO2 < 0.5 ppm; H2S < 0.1 ppm
Current carrying capacity (supply connections)	Max. 8 A (U_{LS}: 4 A; U_A: 4 A)

WAGO *SPEEDWAY 767*

	Function	Description	Item No. Standard	Item No. Interference-Free
	**Fieldbus Couplers**	FC PROFIBUS DP, 8 DI, 24 VDC	**767-1101**	
		FC PROFINET IO, 8 DI, 24 VDC	**767-1201**	
		FC ETHERNET, 8 DI, 24 VDC	**767-1301**	
		FC sercos 8 DI, 24 VDC, high-speed	**767-1311**	
		FC DeviceNet, 8 DI, 24 VDC	**767-1401**	
		FC CANopen, 8 DI, 24 VDC	**767-1501**	
	**Digital Input Modules (DI)**	8 DI, 24 VDC (8 x M8)	**767-3801**	
		8 DI, 24 VDC (4 x M12)	**767-3802**	
		8 DI, 24 VDC, low-side switching (8 x M8)	**767-3803**	
		8 DI, 24 VDC, low-side switching (4 x M12)	**767-3804**	
		8 DI, 24 VDC (8 x M12)	**767-3805**	
		8 DI, 24 VDC, high-speed (4 x M12)	**767-3806**	
	**Digital Output Modules (DO)**	8 DO, 24 VDC, 0.5 A (8 x M8)	**767-4801**	**767-4801/000-800**
		8 DO, 24 VDC, 0.5 A (4 x M12)	**767-4802**	**767-4802/000-800**
		8 DO, 24 VDC, 2.0 A (8 x M8)	**767-4803**	**767-4803/000-800**
		8 DO, 24 VDC, 2.0 A (4 x M12)	**767-4804**	**767-4804/000-800**
		8 DO, 24 VDC, 0.5 A, low-side switching (8 x M8)	**767-4805**	
		8 DO, 24 VDC, 0.5 A, low-side switching (4 x M12)	**767-4806**	
		8 DO, 24 VDC, 0.5 A (8 x M12)	**767-4807**	**767-4807/000-800**
		8 DO, 24 VDC, 0.1 A, high-speed (4 x M12)	**767-4808**	
	**Digital Input/ Output Modules (DIO)**	8 DIO, 24 VDC, 0.5 A (8 x M8)	**767-5801**	**767-5801/000-800**
		8 DIO, 24 VDC, 0.5 A (4 x M12)	**767-5802**	**767-5802/000-800**
		8 DIO, 24 VDC, 0.5 A (8 x M12)	**767-5803**	**767-5803/000-800**
		4 DIO, 24 VDC, 0.2 A, high-speed (4 x M12)	**767-5401**	
	**Analog Input Modules (AI)**	4 AI U/I (4 x M12)	**767-6401**	
		4 AI RTD (4 x M12)	**767-6402**	
		4 AI TC (4 x M12)	**767-6403**	
	**Analog Output Modules (AO)**	4 AO U/I (4 x M12)	**767-7401**	
	**Function and Technology Modules**	TTL Incremental Encoder/SSI Encoder (4 x M12)	**767-5201**	
		HTL Incremental Encoder/Counter (4 x M12)	**767-5202**	
	Communication Modules	Serial Interface RS-232, RS-422/-485 (4 x M12)	**767-5203**	
		MOVILINK® Interface (RS-232, RS-485) (4 x M12)	**767-5204**	
	**Supply Modules**	Power Divider (1 x M23 + 6 x M12)	**767-9101**	
Accessories				
	**Spacer Module,** with fixing lugs for cable ties		**767-111**	
	**Protective Caps,** for unused sockets	M8	**756-8101**	
		M12	**756-8102**	
	**Protective Caps,** for unused plugs	M12	**755-8103**	
		M23	**755-8104**	
	**Carrier Rail Adapter**	for couplers	**767-121**	
		for I/O modules	**767-122** **767-125**	
	**USB Communication Cable**	3 m	**756-4101/042-030**	
	**Profile Adapter**	for couplers	**767-123**	
		for I/O modules and power dividers	**767-124** **767-126**	

6

WAGO *SPEEDWAY 767*
Connection Cables for 767 Series

System Bus Cables, B-Coded

	Description	Item No.
	Socket, straight, **2** ... **20 m**	756-1301/060-**020** ... 756-1301/060-**200**
	Plug, straight, **2** ... **20 m**	756-1303/060-**020** ... 756-1303/060-**200**
	Socket/plug, straight, **0.2** ... **50 m**	756-1305/060-**002** ... 756-1305/060-**500**
	Socket, angled, **2** ... **20 m**	756-1302/060-**020** ... 756-1302/060-**200**
	Plug, angled, **2** ... **20 m**	756-1304/060-**020** ... 756-1304/060-**200**
	Socket/plug, angled, **0.2** ... **50 m**	756-1306/060-**002** ... 756-1306/060-**500**

Power Supply Cables, A-Coded

	Description	Item No.
	Socket, straight, **2** ... **20 m**	756-3101/040-**020** ... 756-3101/040-**200**
	Plug, straight, **2** ... **20 m**	756-3103/040-**020** ... 756-3103/040-**200**
	Socket/plug, straight, **0.2** ... **20 m**	756-3105/040-**002** ... 756-3105/040-**200**
	Socket, angled, **2** ... **20 m**	756-3102/040-**020** ... 756-3102/040-**200**
	Plug, angled, **2** ... **20 m**	756-3104/040-**020** ... 756-3104/040-**200**
	Socket/plug, angled, **0.2** ... **20 m**	756-3106/040-**002** ... 756-3106/040-**200**

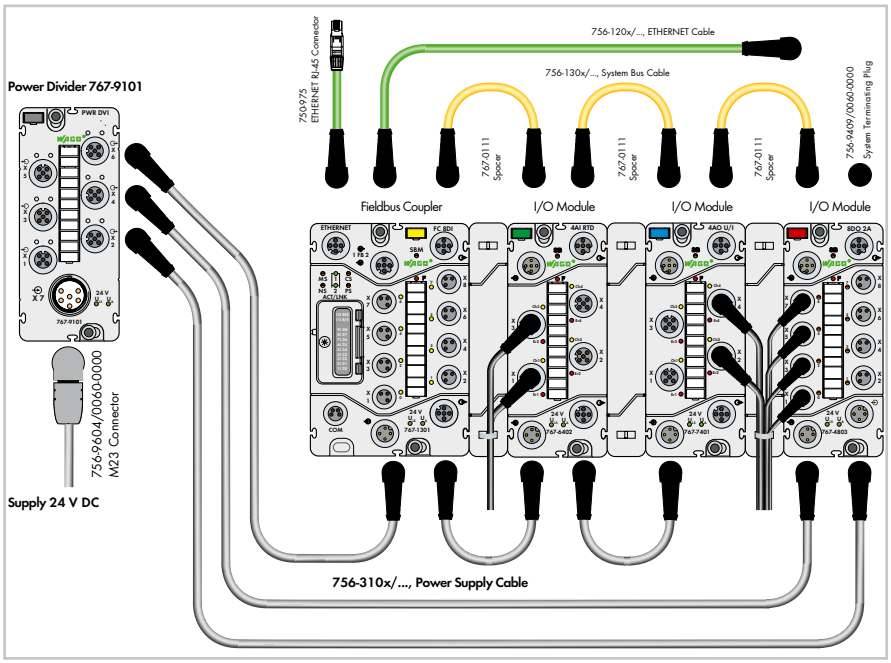
ETHERNET, PROFINET Cables, D-Coded

	Description	Item No.
	Plug, straight, **2** ... **20 m**	756-1201/060-**020** ... 756-1201/060-**200**
	Plug/plug, straight, **2** ... **20 m**	756-1203/060-**020** ... 756-1203/060-**200**
	Plug, angled, **2** ... **20 m**	756-1202/060-**020** ... 756-1202/060-**200**
	Plug/plug, angled, **2** ... **20 m**	756-1204/060-**020** ... 756-1204/060-**200**

Power Supply

The WAGO SPEEDWAY system's modular structure allows both individual I/O modules and groups of modules to be supplied (e.g., emergency stop groups). Thus, different power supplies can be used at the same potential to operate each individual module and group of modules. Two supply lines are routed within the supply cables (gray). The logic and sensor supply (U_{LS}) is always electrically isolated from the actuator supply (U_A).

Additional I/O modules can be connected until the highest permissible current load of 4 A for one supply line (U_{LS} and/or U_A) is reached. The power supply must be re-established to connect additional *SPEEDWAY* Modules. However, using 2 A output modules, power supply will not be transmitted in the event of an increased power demand.



WAGO's *SPEEDWAY* Power Divider permits U_{LS} and U_A power supply distribution via six M12 connectors. The combination of point-to-point and linear power distribution/distribution routing offers the greatest flexibility to optimize the supply lines for the respective application and to supply power over large distances.

Sensor/Actuator Boxes, IP67
757 Series

	Function	Description	Item No.
	**M12 Sensor/Actuator Boxes,** with connection cable	4-port, 4-pole, 5 m cable	**757-244/000-005**
		4-port, 4-pole, 10 m cable	**757-244/000-010**
		6-port, 4-pole, 5 m cable	**757-264/000-005**
		6-port, 4-pole, 10 m cable	**757-264/000-010**
		8-port, 4-pole, 5 m cable	**757-284/000-005**
		8-port, 4-pole, 10 m cable	**757-284/000-010**
		8-port, 4-pole, 25 m cable	**757-284/000-025**
		4-port, 5-pole, 5 m cable	**757-245/000-005**
		4-port, 5-pole, 10 m cable	**757-245/000-010**
		6-port, 5-pole, 5 m cable	**757-265/000-005**
		6-port, 5-pole, 10 m cable	**757-265/000-010**
		8-port, 5-pole, 5 m cable	**757-285/000-005**
		8-port, 5-pole, 10 m cable	**757-285/000-010**
		8-port, 5-pole, 25 m cable	**757-285/000-025**
	**M12 Sensor/Actuator Boxes,** with M23 connector	4-port, 4-pole, M23 connector	**757-144**
		6-port, 4-pole, M23 connector	**757-164**
		8-port, 4-pole, M23 connector	**757-184**
		4-port, 5-pole, M23 connector	**757-145**
		6-port, 5-pole, M23 connector	**757-165**
		8-port, 5-pole, M23 connector	**757-185**
		8-port, 5-pole, without LED, M23 connector	**757-185/100-000**
	**M8 Sensor/Actuator Boxes,** with connection cable	4-port, 3-pole, 2 m cable	**757-443/000-002**
		4-port, 3-pole, 5 m cable	**757-443/000-005**
		4-port, 3-pole, 10 m cable	**757-443/000-010**
		6-port, 3-pole, 5 m cable	**757-463/000-005**
		6-port, 3-pole, 10 m cable	**757-463/000-010**
		8-port, 3-pole, 5 m cable	**757-483/000-005**
		8-port, 3-pole, 10 m cable	**757-483/000-010**
		10-port, 3-pole, 5 m cable	**757-403/000-005**
		10-port, 3-pole, 10 m cable	**757-403/000-010**
	**M8 Sensor/Actuator Boxes,** with M16 connector	4-port, 3-pole, M16 connector	**757-343**
		6-port, 3-pole, M16 connector	**757-363**
		8-port, 3-pole, M16 connector	**757-383**
		10-port, 3-pole, M16 connector	**757-303**
Accessories			
	**Connection Cables**	M16 socket, straight, 14-pole, **5 … 15 m**	756-3205/140-**050** … 756-3205/140-**150**
		M16 socket, angled, 14-pole, **5 … 15 m**	756-3206/140-**050** … 756-3206/140-**150**
		M23 socket, straight, 12-pole, **5 … 15 m**	756-3201/120-**050** … 756-3201/120-**150**
		M23 socket, straight, 19-pole, **5 … 15 m**	756-3203/190-**050** … 756-3203/190-**150**
		M23 socket, angled, 12-pole, **5 … 15 m**	756-3202/120-**050** … 756-3202/120-**150**
		M23 socket, angled, 19-pole, **5 … 15 m**	756-3204/190-**050** … 756-3204/190-**150**
	**Spacer Modules** for sensor/actuator boxes	4-port	**757-040**
		6-port	**757-060**
		8-port	**757-080**
		10-port	**757-000**
	**Marker Cards** for M12 sensor/actuator boxes, 40 markers/card		**757-011**

6

ETHERNET Industrial Switches
852 Series

Industrial Switch, 5 Ports*
Supply voltage: 9 … 48 VDC
Ports: 5 x 10/100Base-TX (RJ-45)

Dimensions (W x H x L): 50 x 120 x 105 mm



Designation	Item No.
Industrial Switch,	
5 Ports 100Base-TX	**852-101**

Industrial Switches, 8 Ports*
Supply voltage: 9 … 48 VDC
Ports: 8 x 10/100Base-TX (RJ-45)
2 x SFP 100Base-FX Fiber
8 x 1000Base-T

Dimensions (W x H x L): 50 x 162 x 120 mm





Designation	Item No.
Industrial Switch,	
8 Ports 100Base-TX	**852-102**
8 Ports 1000Base-T	**852-1102**
Industrial Switch,	
8 Ports 100Base-TX,	
2 Slots 100Base-FX	**852-103**
Extended temperature range:	
-40 °C … +70 °C	**852-103/040-000**

Industrial Managed Switch, 8 Ports*
Supply voltage: 12 … 60 VDC
Ports: 8 x 10/100Base-TX (RJ-45)
2 x SFP 1000Base-SX/LX Fiber

Dimensions (W x H x L): 50 x 162 x 120 mm



Designation	Item No.
Industrial Managed Switch,	
8 Ports 100Base-TX,	
2 Slots 1000Base-SX/LX	**852-303**

Accessories, 852 Series

DNV Mounting Adapter,



for ETHERNET Switches, stainless steel	**852-9101**

SFP Modules, 1,310 nm, 100Base-FX Multi-Mode LC



2 km	**852-201/107-002**
30 km	**852-201/107-030**
2 km (Operating temp.: -40 °C … +70°C)	**852-201/040-002**

SFP Modules, 1000Base, operating temperature:



-40 °C … + 85 °C	
1000Base-SX, 0.5 km	**852-1200**
1000Base-LX, 10 km	**852-1210**
1000Base-ZX, 80 km	**852-1280**

Industrial Managed Switch, 8 Ports*
Supply voltage: 12 … 60 VDC
Ports: 8 x 10/100/1000Base-TX (RJ-45)
4 x SFP 1000Base-SX/LX Fiber

Dimensions (W x H x L): 50 x 162 x 120 mm



Designation	Item No.
Industrial Managed Switch,	
8 Ports 1000Base-TX,	
4 Slots 1000Base-SX/LX	**852-1305**

Industrial ECO Switches, 5 Ports*
Supply voltage: 18 … 30 VDC
Ports: 5 (RJ-45)

Dimensions (W x H x L):
23.4 x 73.8 x 109.2 mm



Designation	Item No.
Industrial ECO Switch,	
5 Ports 100Base-TX	**852-111**
Industrial ECO Switch,	
5 Ports 1000Base-T	**852-1111**

Industrial ECO Switch, 8 Ports*
Supply voltage: 18 … 30 VDC
Ports: 8 x 10/100Base-TX (RJ-45)
8 x 1000Base-T

Dimensions (W x H x L):
109.2 x 23.4 x 73.8 mm



Designation	Item No.
Industrial ECO Switch,	
8 Ports 100Base-TX	**852-112**
Industrial ECO Switch,	
8 Ports 1000Base-T	**852-1112**

*Approvals and technical data are available online at www.wago.com.

For technical explanations and abbreviations, see technical section.

Shield Connecting System

790 Series



Direct installation on metal plate (max. 3 mm thick)



790 Series



790 Series



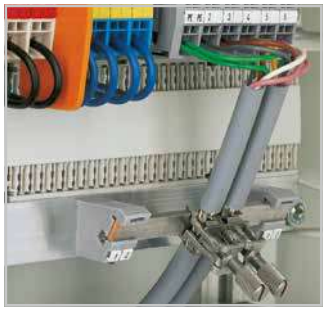
Mounting the shield clamping saddle onto the busbar.



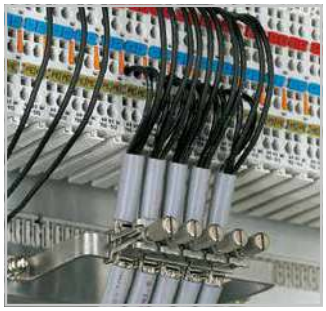
Installation on specialty slotted carrier rail



Removing the busbar carrier.



Installation on busbar with insulated mounting feet



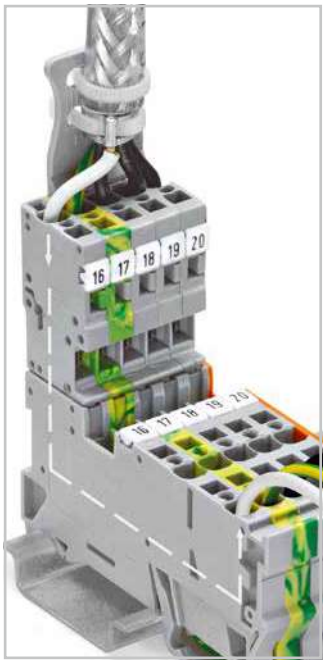
Installation on U-shaped copper busbar

Shield Clamping Saddles

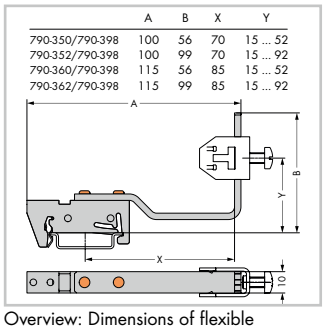
Saddle Width	Cable Diameter	Item No.	Pack. Unit	Saddle Width	Cable Diameter	Item No.	Pack. Unit
11 mm	0 ... 8	**790-108**	50	12.4 mm	3 ... 8	**790-208**	50
19 mm	7 ... 16	**790-116**	50	21.8 mm	6 ... 16	**790-216**	25
27 mm	6 ... 24	**790-124**	50	30 mm	6 ... 20	**790-220**	25
43 mm	22 ... 40	**790-140**	50				

Accessories, 790 Series

	**Carrier with grounding foot,** 45 mm bar 90° to the rail, copper (10 x 3) mm		**790-113**	25
	**Carrier with grounding foot,** bar parallel to the rail, copper (10 x 3) mm, 25 mm		**790-112**	25
	copper (10 x 3) mm, 45 mm		**790-114**	25
	**Carrier with 2 grounding feet,** 125 mm bar parallel to the rail, copper (10 x 3) mm		**790-115**	25
	**Carrier rail,** specialty slotted, 1,000 mm long, tin-plated (special lengths upon request)		**790-145**	1
	**Spacer sleeve,** for specialty slotted carrier rail, for M5-size screw	**790-144**	200 (2x100)	
	**Straight busbar,** tin-plated, 1,000 mm		**210-133**	20 (20x1)
	copper (10 x 3) mm	30 mm	**790-133**	20 (20x1)
		50 mm	**790-134**	20 (20x1)
	**Insulated mounting foot,** for busbar with M4 x 8 mm screw ◯		**790-100**	50 (2x25)
	with (3.5 x 9) mm sheet metal screw ◯		**790-101**	50 (2x25)
	**U-shaped busbar,** for 750 Series I/O Modules, copper (10 x 3) mm for 5 I/O		**790-190**	25 (5x5)
	for 8 I/O		**790-191**	25 (1x25)
	**Busbar carrier,** for (10 x 3) mm copper busbars, straight		**790-300**	10
	angled		**790-301**	10
	**Busbar carrier with T-connector,** flexible, for (10 x 3) mm copper busbars from center of DIN-railfrom upper-edge of DIN-rail			
	70 mm	15 ... 52 mm	**790-350/790-398**	12
	70 mm	15 ... 92 mm	**790-352/790-398**	12
	85 mm	15 ... 52 mm	**790-360/790-398**	12
	85 mm	15 ... 92 mm	**790-362/790-398**	12
	**T-connector,** connects two (10 x 3) mm copper busbars		**790-398**	10
	**Shield termination,** includes cable tie for 5 ... 10 mm Ø, 55 mm long		**709-350**	100 (4x25)
	150 mm long		**709-352**	100 (4x25)

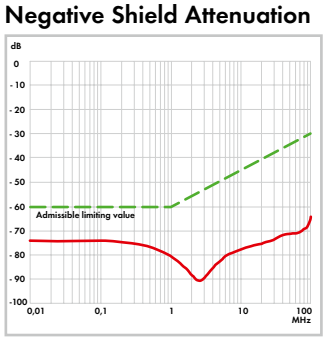


Shield termination



Overview: Dimensions of flexible busbar carriers

Negative Shield Attenuation



WAGO's shield connecting system is highly effective because the clamping unit can be brought very close to the unshielded part of the cable. Additionally, the spring material is part of the clamping saddle, providing a good electrical connection (the system also acts as partial strain relief).
The spring element integrated in the shield clamping saddle compensates for deformation and settling that results from a connected shield.

Please find the entire product range in our full line catalog. For additional information, visit www.wago.com.

EPSITRON® – ADVANCED POWER SUPPLY SYSTEM

EPSITRON® POWER SUPPLIES







ECO Power

EPSITRON® ECO POWER

Single- and three-phase power supplies with a wide input voltage range and 24 V nominal output



COMPACT Power

EPSITRON® COMPACT POWER

Low-profile, single-phase power supplies with a wide input voltage range, as well as nominal output voltages of 5 V, 12 V, 18 V and 24 V



CLASSIC Power

EPSITRON® CLASSIC POWER

Single-phase power supplies with a wide input voltage range and 12 V, 24 V or 48 V nominal output



PRO Power

EPSITRON® PRO POWER

Single- and three-phase power supplies with a wide input voltage range, 12 V, 24 V or 48 V nominal output, PowerBoost, TopBoost and optional LineMonitor

EPSITRON® SYSTEM MODULES







ECBs

EPSITRON® ELECTRONIC CIRCUIT BREAKERS (ECBs)

Configurable, 2-, 4- or 8-channel ECBs feature integrated current and voltage monitoring.



UPS

EPSITRON® UNINTERRUPTIBLE POWER SUPPLIES (UPS)

UPS charger, controller and connected battery modules reliably endure longer power failures and feature integrated battery control technology.



Capacitive Buffer Modules

EPSITRON® CAPACITIVE BUFFER MODULES

Maintenance-free, capacitive buffer modules ensure seamless operation during short voltage fluctuations.



Redundancy Modules

EPSITRON® REDUNDANCY MODULES

Redundancy modules safeguard two power supplies that are parallel-connected, providing system redundancy or additional power.

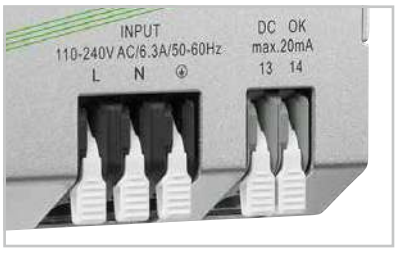
EPSITRON® Power Supplies
ECO Power, Single- and Three-Phase
787 Series

	Input Nominal Voltage	Output Nominal Voltage	Output Current	Efficiency (230 VAC, Nominal Load)	Dimensions (W x H x L in mm)*	Item No.
	**1 x** 100 ... 240 VAC	24 VDC	1.25 A	88 % (typ.)	30 x 99 x 90	**787-1702**
			2.5 A	89 % (typ.)	40 x 99 x 90	**787-1712**
			5 A	89 % (typ.)	60 x 99 x 130	**787-1722**
			10 A	89 % (typ.)	70 x 99 x 165	**787-1732**
	**1 x** 110 ... 240 VAC	24 VDC	2.5 A	86 % (typ.)	50 x 92 x 136	**787-712**
			5 A	86 % (typ.)	75 x 92 x 136	**787-722**
			10 A	86 % (typ.)	110 x 92 x 136	**787-732**
			20 A	90 % (typ.)	115 x 144 x 136	**787-734**
			40 A	90 % (typ.)	170 x 153 x 136	**787-736**
	**3 x (2 x)** 400 ... 500 VAC	24 VDC	6.25 A	87 % (typ.)	50 x 92 x 136	**787-738**
			10 A	89 % (typ.)	65 x 130 x 136	**787-740**
			20 A	90 % (typ.)	110 x 153 x 136	**787-742**



Clear Indication

- Green LED indicates output voltage availability
- Red LED indicates an overcurrent or short circuit
- Easy commissioning and maintenance



Fast Wiring

- Lever-actuated terminal strips (2706 or 2716 Series)
- Convenient, tool-free wiring
- Integrated test slot simplifies testing by eliminating conductor removal



Easy Grounding

- Integrated, third negative terminal on the output side**
- Direct connection to the reference ground, which is frequently used in machines and equipment

*Height (H) from upper-edge of DIN-35 rail

**only 787-734 ... -742

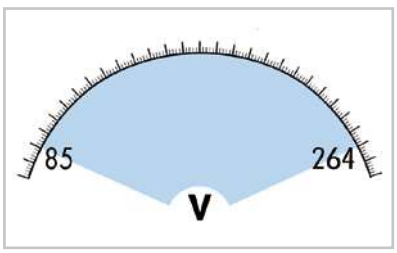
EPSITRON® Power Supplies
COMPACT Power, Single-Phase
787 Series

	Input Nominal Voltage	Output Nominal Voltage	Output Current	Efficiency	Dimensions (W x H x L in mm)*	Item No.
	**1 x** 100 ... 240 VAC	5 VDC	5.5 A at 5 VDC	75 % (typ.)	72 x 55 x 89	**787-1020**
	**1 x** 100 ... 240 VAC	12 VDC	2 A at 12 VDC / 0.75 A at 18 VDC	80 % (typ.)	54 x 55 x 89	**787-1001**
			4 A at 12 VDC	85 % (typ.)	72 x 55 x 89	**787-1011**
			6.5 A at 12 VDC	87 % (typ.)	90 x 55 x 89	**787-1021**
	**1 x** 100 ... 240 VAC	18 VDC	2.5 A at 18 VDC / 2.3 A at 24 VDC; 55 W (max.)	83 % (typ.) at 18 VDC / 2.5 A; 85 % (typ.) at 24 VDC / 2.3 A	72 x 55 x 89	**787-1017**
	**1 x** 100 ... 240 VAC	24 VDC	1.3 A at 24 VDC	82 % (typ.)	54 x 55 x 89	**787-1002**
			2.5 A at 24 VDC	88 % (typ.)	72 x 55 x 89	**787-1012**
			4 A at 24 VDC	88 % (typ.)	90 x 55 x 89	**787-1022**



Clear Indication

- Status indication via green LED
- Current operating status can be displayed quickly



Supply Tolerance

- Single-phase, wide input voltage range
- High tolerance to voltage fluctuations within a power grid ensures a high level of operational reliability



Overhead Mounting

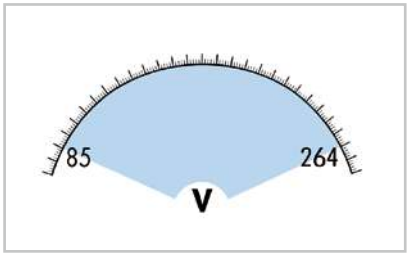
- Any type of mounting position is possible with reduced output power
- Units can even be mounted overhead (e.g., in ceiling-mounted distribution boxes)

EPSITRON® Power Supplies
CLASSIC Power, Single-Phase
787 Series

	Input Nominal Voltage	Output Nominal Voltage	Output Current	Efficiency	Dimensions (W x H x L in mm)*	Item No.
	**1 x** 100 ... 240 VAC	12 VDC	2 A	82 % (typ.)	22.5 x 107.5 x 90	**787-1601**
			4 A	86 % (typ.)	45 x 107.5 x 90	**787-1611**
			7 A	86 % (typ.)	52 x 119 x 90	**787-1621**
			15 A	90 % (typ.)	55 x 172 x 127	**787-1631**
	**1 x** 100 ... 240 VAC	24 VDC	1 A	86 % (typ.)	22.5 x 107.5 x 90	**787-1602**
			2 A	89 % (typ.)	45 x 107.5 x 90	**787-1606**
			4 A	89 % (typ.)	52 x 119 x 90	**787-1616**
			5 A	89 % (typ.)	42 x 137.5 x 127	**787-1622**
			10 A	91 % (typ.)	55 x 172 x 127	**787-1632**



Slim Design
- Save valuable cabinet space



Universal Supply
- Wide input voltage range
- Can be operated worldwide
- High level of operational reliability

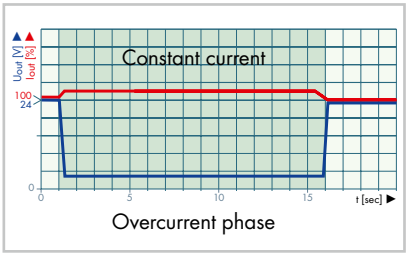


Integrated TopBoost
- Reliably trigger of the secondary-side fusing via miniature circuit breakers (≥ 120 W output power)

*Height (H) from upper-edge of DIN-35 rail

EPSITRON® Power Supplies
CLASSIC Power, Single-, Two- and Three-Phase
787 Series

	Input Nominal Voltage	Output Nominal Voltage	Output Current	Efficiency	Dimensions (W x H x L in mm)*	Item No.
 	**1 x** 100 ... 240 VAC	24 VDC	20 A	92 % (typ.)	95 x 170 x 127	**787-1634**
			3.8 A LPS / NEC Class 2	87 % (typ.)	52 x 119 x 90	**787-1616/000-1000**
 	**1 x** 100 ... 240 VAC	48 VDC	2 A	86 % (typ.)	55 x 119 x 90	**787-1623**
			5 A	92 % (typ.)	55 x 172 x 127	**787-1633**
			10 A	93 % (typ.)	95 x 170 x 127	**787-1635**
	**2 x** 200 ... 500 VAC	24 VDC	5 A	89 % (typ.)	42 x 137 x 127	**787-1628**
 	**3 x** 400 ... 500 VAC		10 A	90 % (typ.)	55 x 171 x 127	**787-1640**
			20 A	92 % (typ.)	80 x 180 x 127	**787-1642**
			40 A	92 % (typ.)	126 x 198 x 127	**787-1644**





High Load-Carrying Capacity

- Constant current characteristic under overload conditions
- 110 % output current with lowered output voltage – even during a short circuit
- High capacitive loads can be reliably started

Clear and Easy to Connect

- CAGE CLAMP® connection technology – vibration-proof, fast, maintenance-free
- Colored and marked female connectors can be pre-assembled – 100 % protected against mismating

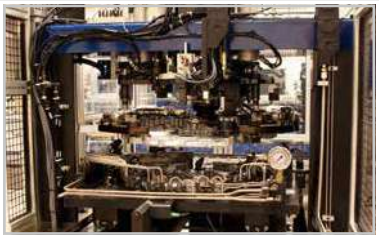
EPSITRON® Power Supplies
PRO Power, Single- and Two-Phase
787 Series

	Input Nominal Voltage	Output Nominal Voltage	Output Current	Efficiency	PowerBoost	TopBoost	Dimensions (W x H x L in mm)*	Item No.
 	**1/2 x** 100 ... 240 VAC	12 VDC	6 A at 12 VDC	83 % (typ.)	12 ADC (for 4 s), 9 ADC (for 8 s)	21 ADC (for 25 ms)	40 x 163 x 163	**787-819**
			10 A at 12 VDC	87.8 % (typ.)	20 ADC (for 4 s), 15 ADC (for 8 s)	60 ADC (for 25 ms), 40 ADC at U_{IN} < 110 VAC (for 25 ms)	57 x 163 x 163	**787-821**
			15 A at 12 VDC	87 % (typ.)	30 ADC (for 4 s), 22.5 ADC (for 8 s)	55 ADC (for 25 ms)	57 x 179 x 163	**787-831**
 	**1/2 x** 100 ... 240 VAC	24 VDC	3 A at 24 VDC	87.8 % (typ.)	6 ADC (for 4 s), 4.5 ADC (for 8 s)	14 ADC (for 25 ms)	40 x 163 x 163	**787-818**
			5 A at 24 VDC	87.8 % (typ.)	10 ADC (for 4 s), 7.5 ADC (for 8 s)	21 ADC (for 25 ms)	57 x 163 x 163	**787-822**
			10 A at 24 VDC	90 % (typ.)	20 ADC (for 4 s), 15 ADC (for 8 s)	60 ADC (for 25 ms)	57 x 179 x 163	**787-832**
	**1/2 x** 110 ... 240 VAC		20 A at 24 VDC	91 % (typ.)	30 ADC (for 4 s), 25 ADC (for 8 s)	80 ADC (for 25 ms)	97 x 187 x 171	**787-834**
 	**1/2 x** 110 ... 240 VAC	48 VDC	5 A at 48 VDC	91 % (typ.)	10 ADC (for 4 s), 7.5 ADC (for 8 s)	30 ADC (for 25 ms)	57 x 179 x 163	**787-833**
			10 A at 48 VDC	91 % (typ.)	17.5 ADC (for 4 s), 15 ADC (for 8 s)	60 ADC (for 25 ms)	97 x 187 x 171	**787-835**



TopBoost

- Multiplies the nominal current for up to 50 ms
- Fast and reliable triggering of the secondary-side fusing via miniature circuit breakers or melting fuses in the event of a short circuit or overload
- Fulfills EN 60204-1 grounding requirements in control circuits



PowerBoost

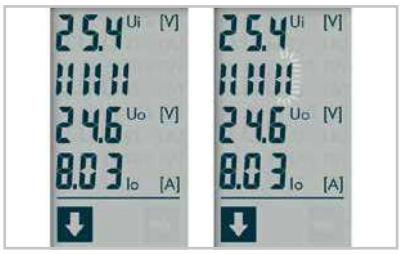
- Provides 200 % of output power for four seconds
- Provides 150 % of output power for up to 16 seconds
- Advantageous during start-up or switching of capacitive loads (e.g., valve clusters, motors)
- Power reserve eliminates expensive oversizing

*Height (H) from upper-edge of DIN-35 rail

EPSITRON® Power Supplies
PRO Power, Two- and Three-Phase
787 Series

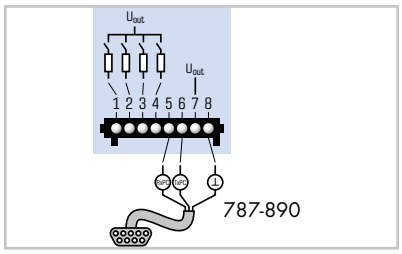
	Input Nominal Voltage	Output Nominal Voltage	Output Current	Efficiency	PowerBoost	TopBoost	Dimensions (W x H x L in mm)*	Item No.
	**2/3 x** 400 ... 500 VAC	24 VDC	10 A at 24 VDC	91.7 % (typ.)	20 ADC (for 4 s), 15 ADC (for 16 s)	70 ADC (for 50 ms)	57 x 179 x 163	**787-840**
			20 A at 24 VDC	92.9 % (typ.)	20 ADC (for 4 s), 15 ADC (for 16 s)	80 ADC (for 50 ms)	77 x 179 x 171	**787-842**
			40 A at 24 VDC	93.6 % (typ.)	60 ADC (for 4 s), 50 ADC (for 16 s)	100 ADC (for 50 ms)	128 x 205 x 171	**787-844**
	**2/3 x** 400 ... 500 VAC	48 VDC	10 A at 48 VDC	93 % (typ.)	15 ADC (for 4 s), 12.5 ADC (for 16 s)	55 ADC (for 50 ms)	77 x 179 x 171	**787-845**
			20 A at 48 VDC	94.4 % (typ.)	30 ADC (for 4 s), 25 ADC (for 16 s)	80 ADC (for 50 ms)	128 x 205 x 171	**787-847**
	**2/3 x** 400 ... 500 VAC	24 VDC	10 A at 24 VDC	91.7 % (typ.)	20 ADC (for 4 s), 15 ADC (for 16 s)	70 ADC (for 50 ms)	57 x 179 x 163	**787-850***
			20 A at 24 VDC	92.9 % (typ.)	40 ADC (for 4 s), 30 ADC (for 16 s)	80 ADC (for 50 ms)	77 x 179 x 171	**787-852***
			40 A at 24 VDC	93.6 % (typ.)	60 ADC (for 4 s), 50 ADC (for 16 s)	100 ADC (for 50 ms)	128 x 205 x 171	**787-854***

*Device features LineMonitor capability for parameter setting and monitoring, as well as active signal outputs and serial interface.



Innovative Communication

- LineMonitor with display and function keys
- Variable monitoring, e.g., current, voltage, phase position, operating hours and more
- Output voltage and overload behavior can be parameterized
- Integrated fault memory



Active Signal Contacts

- Four active signal outputs for watchdog functions
- Each unit features a separate collective message for warning/fault
- Features two individually configurable signal outputs
- Free 759-850 Configuration Software can be downloaded at: **www.wago.com**

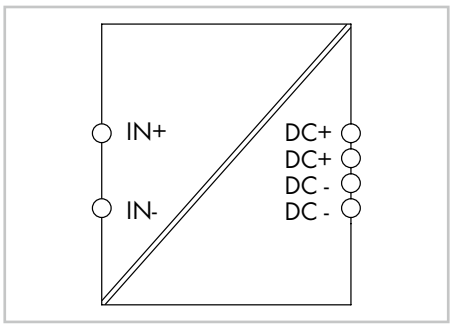


RS-232 Serial Interface

- Front-side integrated interface communicates with a PC or PLC
- Free 759-850 Configuration Software and 759-851 Visualization Software can be downloaded at **www.wago.com**
- Free function blocks are available for various PLC systems
- Optional serial 787-890 Communication Cable is available

EPSITRON® Power Supplies
DC/DC Converters
787 Series

	Input Nominal Voltage	Output Nominal Voltage	Output Current	Efficiency	Dimensions (W x H x L in mm)*	Item No.
	24 VDC	5 VDC	0.5 A	78 % (typ.)	6 x 96 x 94	**787-2801**
	24 VDC	10 VDC	0.5 A	86.5 % (typ.)	6 x 96 x 94	**787-2802**
	48 VDC	24 VDC	0.25 A	87 % (typ.)	6 x 96 x 94	**787-2803**
	24 VDC	12 VDC	0.5 A	88 % (typ.)	6 x 96 x 94	**787-2805**
	24 VDC	5/10/12 VDC	0.5 A	78 % (typ.)	6 x 96 x 94	**787-2810**
	72 VDC	24 VDC	2.5 A at 24 VDC, 1.6 A (max.) in any mounting position	84 % (typ.)	72 x 55 x 89	**787-1014/072-000**
	110 VDC	24 VDC	2.0 A at 24 VDC	85 % (typ.)	72 x 55 x 89	**787-1014**



Electrical isolation up to 4.2 kV

*Height (H) from upper-edge of DIN-35 rail

EPSITRON® Power Supplies
Electronic Circuit Breakers (ECBs)
787 Series

	Description	Input Nominal Voltage	Nominal Current (adjustable channel-by-channel via rotary switch)	LED Indication	Dimensions (W x H x L in mm)*	Item No.
	**ECB**	24 VDC	**2 x** 2, 3, 4, 6, 8, 10 A	2 x LED (green/red/orange), 2 x signal output	45 x 115.5 x 90	**787-1662**
	ECB with Active Current Limitation		**2 x** 0.5, 1, 2, 3, 4, 6 A	2 x LED (green/red/orange), 2 x signal output	45 x 115.5 x 90	**787-1662/006-1000**
	ECB		**2 x** 1, 2, 3, 4, 5, 6 A	2 x LED (green/red/orange), 2 x signal output	45 x 115.5 x 90	**787-1662/106-000**
	ECB with Active Current Limitation		**2 x** 2, 4, 6, 8, 10, **12 A**	2 x LED (green/red/orange), 2 x signal output	45 x 115.5 x 90	**787-1662/212-1000**
	**ECB**	24 VDC	**4 x** 2, 3, 4, 6, 8, 10 A	4 x LED (green/red/orange), 2 x signal output	45 x 115.5 x 90	**787-1664**
	ECB (Default setting: 2 ADC, switched off, modified group signal)		**4** x 2, 3, 4, 6, 8, 10 A	4 x LED (green/red/orange), 2 x signal output	45 x 115.5 x 90	**787-1664/000-004**
	ECB with Active Current Limitation		**4 x** 0.5, 1, 2, 3, 4, 6 A	4 x LED (green/red/orange), 2 x signal output	45 x 115.5 x 90	**787-1664/006-1000**
	ECB		**4 x** 1, 2, 3, 4, 5, 6 A	4 x LED (green/red/orange), 2 x signal output	45 x 115.5 x 90	**787-1664/106-000**
	ECB with Active Current Limitation		**4 x** 2, 4, 6, 8, 10, **12 A**	4 x LED (green/red/orange), 2 x signal output	45 x 115.5 x 90	**787-1664/212-1000**

EPSITRON® Power Supplies
Electronic Circuit Breakers (ECBs)
787 Series

	Description	Input Nominal Voltage	Nominal Current (adjustable channel-by-channel via rotary switch)	LED Indication	Dimensions (W x H x L in mm)*	Item No.
	**ECB**	24 VDC	**8 x** 2, 3, 4, 6, 8, 10 A	8 x LED (green/red/ orange)	42 x 142.5 x 127	**787-1668**
	ECB (Default setting: 2 ADC, switched off, modified group signal)		**8 x** 2, 3, 4, 6, 8, 10 A	8 x LED (green/red/ orange)	42 x 142.5 x 127	**787-1668/000-004**
	ECB with Active Current Limitation		**8 x** 0.5, 1, 2, 3, 4, 6 A	8 x LED (green/red/ orange)	42 x 142.5 x 127	**787-1668/006-1000**
	ECB		**8 x** 1, 2, 3, 4, 5, 6 A	8 x LED (green/red/ orange)	42 x 142.5 x 127	**787-1668/106-0000**
	**ECB**	24 VDC	**4** x 1 ... 6 A (adjustable for each channel in 1 A steps)	LCD, 4 x signal output	40 x 163 x 171	**787-860**
	ECB with Active Current Limitation		**4** x 1 ... 8 A (adjustable for each channel in 1 A steps)	LCD, 4 x signal output	40 x 163 x 171	**787-861**
	ECB		**4** x 1 ... 10 A (adjustable for each channel in 1 A steps)	LCD, 4 x signal output	40 x 163 x 171	**787-862**



Intuitive Communication

- Each output channel has backlit buttons for switching on/off, as well as acknowledgement
- Integrated, multi-color LEDs indicate the operating status of each channel
- Transparent cover can be sealed and marked
- Nominal current can be individually adjusted for each channel
- The setting is always visible – even when no voltage is applied

*Height (H) from upper-edge of DIN-35 rail

EPSITRON® Power Supplies
Electronic Circuit Breakers (ECBs)
787 Series

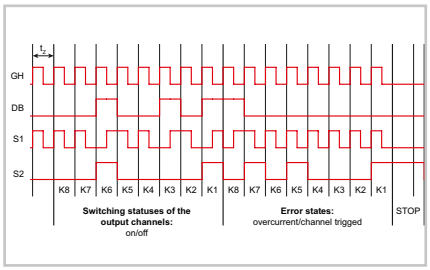
	Description	Input Nominal Voltage	Nominal Current	LED Indication	Dimensions (W x H x L in mm)*	Item No.
	**ECB**	12 VDC	**2 x** 2, 3, 4, 6, 8, 10 A (adjustable channel-by-channel via rotary switch)	2 x LED (green/red/orange), 2 x signal output	45 x 115.5 x 90	**787-1662/000-100**
	**ECB**		**4 x** 2, 3, 4, 6, 8, 10 A (adjustable channel-by-channel via rotary switch)	4 x LED (green/red/orange), 2 x signal output	45 x 115.5 x 90	**787-1664/000-100**
	**ECB**	48 VDC	**2 x** 2, 3, 4, 6, 8, 10 A (adjustable channel-by-channel via rotary switch)	2 x LED (green/red/orange), 2 x signal output	45 x 115.5 x 90	**787-1662/000-200**
	**ECB**		**4 x** 2, 3, 4, 6, 8, 10 A (adjustable channel-by-channel via rotary switch)	4 x LED (green/red/orange), 2 x signal output	45 x 115.5 x 90	**787-1664/000-200**
	ECB		**8 x** 2, 3, 4, 6, 8, 10 A (adjustable channel-by-channel via rotary switch)	8 x LED (green/red/orange), 2 x signal output	42 x 142.5 x 127	**787-1668/000-200**

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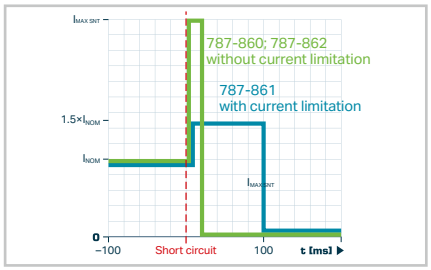
Communication 1.0

- Remote digital input S1 resets all tripped channels
- Digital output S3 transmits a simple group message indicating if one of the channels was triggered by an overcurrent
- Optional isolated signal contact** as a group signal (instead of S2 and S3 digital outputs)



Communication 2.0

- Remote digital input (S1) switches on and off certain channels via pulse sequence
- Digital output (S2) transmits the current status (on/off/tripped/overcurrent) of each individual channel
- Optional transmission of input voltage and output/nominal current value for each channel



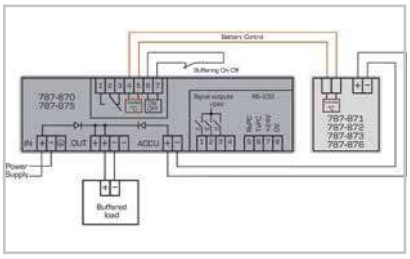
Trip Characteristics

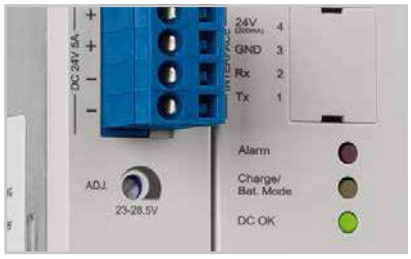
- Reliable and precise disconnection in case of an overcurrent or short circuit
- Nominal currents can be set separately for each channel
- Tripping time can be optionally configured in defined increments
- Optional, active short circuit current limitation to 1.5 times the nominal current prevents a voltage drop in other current paths

**e.g. 787-166x/000-054 and 787-166x/000-250

EPSITRON® Power Supplies
Unterruptible Power Supplies (UPS)
787 Series

	Description	Input Nominal Voltage	Output Current	Buffer Time	Dimensions (W x H x L in mm)*	Item No.
	**Power Supply**, 24 VDC, 1-phase, with integrated UPS charger and controller	100 ... 240 VAC	5 A	0.5 s ... 20 min, IPC mode or constant (adjustable)	60 x 135.5 x 127	**787-1675**
	**UPS Chargers and Controllers**	24 VDC	10 A	10 s ... 600 s, IPC mode or constant (adjustable)	40 x 163 x 163	**787-870**
			20 A	10 s ... 600 s, IPC mode or constant (adjustable)	57 x 163 x 171	**787-875**
	**Lead-Acid AGM Battery Modules**	24 VDC	7.5 A (max.)	1.2 Ah	55 x 136.5 x 153	**787-876**
			20 A (max.)	3.2 Ah	76.2 x 175.5 x 168	**787-871**
			40 A (max.)	7 Ah	86 x 217.5 x 239	**787-872**
			40 A (max.)	12 Ah	120.5 x 217.5 x 239	**787-873**





EPSITRON® Battery Control Technology

- Continuous data exchange between intelligent battery modules (787-87x) and UPS charger/controller prevents the gas generation in the battery
- Automatic detection of 787-87x Battery Modules
- Maximized battery life via temperature-controlled battery management
- Reliable, early warning of decreasing battery life
- Displays current charging status on site (787-870 and 787-875)

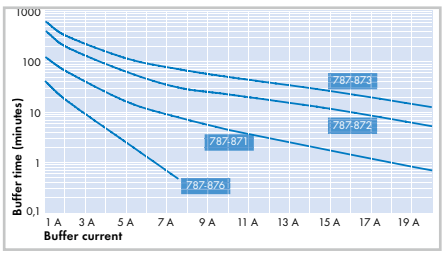
*Height (H) from upper-edge of DIN-35 rail

Diagnostics, Monitoring, Configuration

- LEDs display operating status, warnings and errors
- Signal outputs can be processed as a digital signal in a PLC
- Potential-free signal contacts
- Parameter setting via on-unit buttons or rotary switch
- Visualization or configuration via RS-232 serial interface
- Communication cables 787-890/-892 for 787-1675
- UPS software 759-870

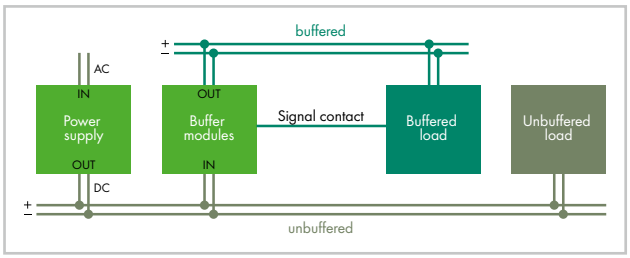
EPSITRON® Power Supplies
Capacitive Buffer and Redundancy Modules
787 Series

	Description	Input Nominal Voltage	Output Nominal Voltage	Output Current	Buffer Time	Efficiency	Dimensions (W x H x L in mm)*	Item No.
	**Capacitive Buffer Modules**	24 VDC	-	10 A	0.06 ... 7.2 s (depends on load current and switching threshold)	-	57 x 179 x 163	**787-880**
			-	20 A	0.17 ... 16.5 s (depends on load current and switching threshold)	-	57 x 179 x 181	**787-881**
	**Diode Redundancy Module**	2 x 24 VDC	24 VDC	20 A, 40 A (max.)	-	97 % (typ.)	40 x 163 x 181	**787-885**
	**Diode Redundancy Module**	2 x 48 VDC	48 VDC	20 A, 40 A (max.)	-	96 % (typ.)	40 x 163 x 181	**787-886**
	**Diode Redundancy Module**	2 x 24 VDC (9 ... 54 VDC)	24 VDC (1 x 9 ... 54 VDC)	12.5 A (max.) as redundancy module, 25 A (max.) in parallel operation	-	96 % (typ.)	50 x 92 x 130	**787-783**
	**Diode Redundancy Module**	2 x 24 VDC (9 ... 54 VDC)	24 VDC (1 x 9 ... 54 VDC)	40 A (max.) as redundancy module, 76 A (max.) in parallel operation	-	97 % (typ.)	83 x 153 x 130	**787-785**
	**MOSFET Redundancy Module**	2 x 24 VDC (10 ... 36 VDC)	24 VDC (1 x 10 ... 36 VDC)	20 A, 40 A (max.)	-	99.5 % (typ.)	42 x 139.5 x 127	**787-1685**



Buffer Time vs. Load Current

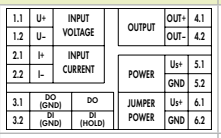
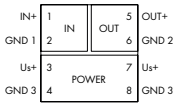
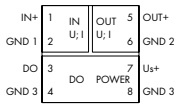
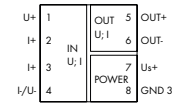
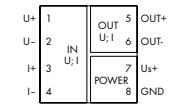
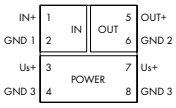
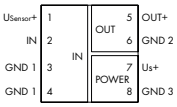
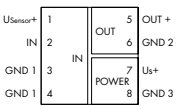
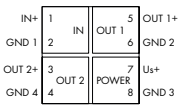
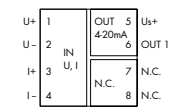
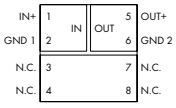
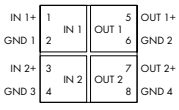
Different buffer times/currents can be achieved depending on the battery module selected. The example below shows a 7 A load current provided for approximately 30 seconds by a 787-870 UPS Charger/Controller (10 A) and 787-876 Battery Module.



Decoupled Output

- Integrated diode
- Buffered and unbuffered loads can be decoupled
- Multiple buffer modules can be parallel-connected to increase buffer time or load current

JUMPFLEX® Signal Conditioning System
Isolation Amplifiers
857/2857 Series

	Description		Input Signal: Current	Input Signal: Voltage	Input Signal: Bipolar Signals (I/U)	Item No.
	**Universal Isolation Amplifier**		0 ... 1 mA 0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA 0 ... 100 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V 0 ... 220 V	±1 mA, ±10 mA, ±20 mA, ±100 mA ±1 V, ±10 V, ±30 V, ±100 V, ±200 V	**2857-401**
	**Isolation Amplifier,** configurable, with zero/span adjustment		0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V		**857-400**
	**Isolation Amplifier,** configurable, with digital output (DO)		0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V	±20 mA ±10 V	**857-401**
	**Universal Isolation Amplifier**		0 ... 0.3 mA to 0 ... 100 mA	0 ... 60 mV to 0 ... 200 V	±0.3 mA to ±100 mA ±60 mV to ±200 mV	**857-402**
	**Bipolar Isolation Amplifier**		0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V	±10 mA ±20 mA ±5 V ±10 V	**857-409**
	**Isolation Amplifiers,** fixed for current or voltage signals		0 (4) ... 20 mA 0 ... 20 mA 4 ... 20 mA	 0 (2) ... 10 V 0 ... 10 V 0 ... 10 V 		**857-411** **857-412** **857-413** **857-414** **857-415** **857-416**
	**Repeater Power Supply,** configurable, with current and voltage output		0 ... 20 mA 4 ... 20 mA			**857-420**
	**HART Repeater Power Supply**		4 ... 20 mA			**857-421**
	**Signal Splitter,** with two configurable current outputs		0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V		**857-423**
	**Loop-Powered** **Isolation Amplifier**		0 ... 5 mA 0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 1 V 0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V	±5 mA ±10 mA ±20 mA ±1 V, ±5 V ±10 V ±20 V	**857-450**
	**Passive Isolator,** 1-channel		0(4) ... 20 mA			**857-451**
	**Passive Isolator,** 2-channel		2 x 0(4) ... 20 mA			**857-452**

Conductor termination



Commoning



Ambient operating temperature range:

857 Series: -25 °C ... +70 °C
2857 Series: -40 °C ... +70 °C

Conductor range:

857 Series – solid: 0.08 ... 2.5 mm² / 28 ... 14 AWG
fine-stranded: 0.34 ... 2.5 mm² / 22 ... 14 AWG
2857 Series – solid/fine-stranded: 0.2 ... 2.5 mm² / 24 ... 12 AWG

For jumpers, see page 204.

Isolation Voltage	Output Signal			Nominal Supply Voltage U_s	Configuration	Specialty Functions
	Current	Voltage	Bipolar Signals (I/U)			
4 kV	0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V	±10 mA ±20 mA ±5 V ±10 V	24 VDC	DIP switches, interface configuration software/app/display	Digital output (DO), clipping
2.5 kV	0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V		24 VDC	DIP switches	Zero/span adjustment
2.5 kV	0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V		24 VDC	DIP switches, interface configuration software/app	Digital output (DO), clipping
2.5 kV	0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V	±10 mA ±20 mA ±5 V ±10 V	24 VDC	DIP switches, push/slide switch	Clipping, zero/span adjustment
2.5 kV	0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V	±10 mA ±20 mA ±5 V ±10 V	24 VDC	DIP switches	Zero/span adjustment
2.5 kV	0 (4) ... 20 mA 0 ... 20 mA 4 ... 20 mA 	0 (4) ... 20 mA 0 (2) ... 10 V 0 ... 10 V 0 ... 10 V		24 VDC		
2.5 kV	0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V		24 VDC	DIP switches	
2.5 kV	4 ... 20 mA			24 VDC		
2.5 kV	2 x 0(4) ... 20 mA			24 VDC	DIP switches	
2.5 kV	4 ... 20 mA			Power via output	DIP switches	Zero/span adjustment
2.5 kV	0(4) ... 20 mA			Power via input		
2.5 kV	2 x 0(4) ... 20 mA			Power via input		

Marking



WMB marking system



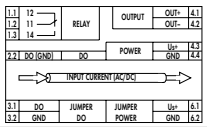
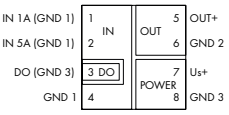
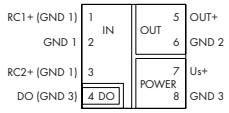
Micro-WSB marking system



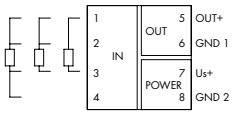
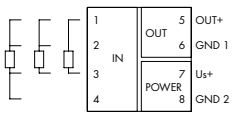
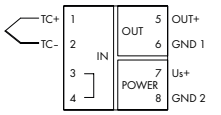
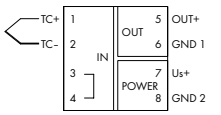
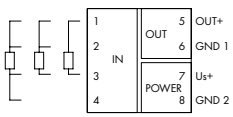
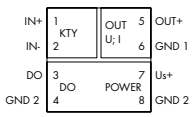
Marking strips

8

JUMPFLEX® Signal Conditioning System
Current and Temperature Signal Conditioners
857/2857 Series

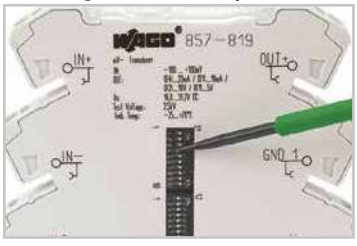
	Description		Input Signal Current	Item No.
	**Through-Hole Current Signal Conditioner**		100 A AC/DC	**2857-550**
	**Current Signal Conditioner,** with digital output (DO)		1 A AC/DC 5 A AC/DC	**857-550**
	**Current Signal Conditioner for Rogowski Coils,** with digital output (DO)		Rogowski coils 500 AAC 2,000 AAC	**857-552**

Temperature Signal Conditioners

	Description		Input Signal	Sensor Connection	Isolation Voltage	Item No.
	**Temperature Signal Conditioner** for Pt sensors and resistance sensors		**Pt sensors:** Pt100, Pt200, Pt500, Pt1000 **Resistance sensors:** 0 ... 1 kΩ; 0 ... 4.5 kΩ	2-, 3-, 4-wire connection (switchable)	2.5 kV	**857-800**
	**Temperature Signal Conditioner** for Pt sensors and resistance sensors		**Pt sensors:** Pt100, Pt200, Pt500, Pt1000 **Resistance sensors:** 0 ... 1 kΩ; 0 ... 4.5 kΩ	2-, 3-, 4-wire connection (switchable)	2.5 kV	**857-801**
	**Temperature Signal Conditioner** for thermocouples		**Thermocouples:** Type J, K		2.5 kV	**857-810**
	**Temperature Signal Conditioner** for thermocouples		**Thermocouples:** Type J, K, E, R, N, S, T, B, S		2.5 kV	**857-811**
	**Temperature Signal Conditioner** for Ni sensors		**Ni sensors:** Ni100, Ni120, Ni200, Ni500, Ni1000	2-, 3-, 4-wire connection (switchable)	2.5 kV	**857-818**
	**KTY Signal Conditioner** with digital output (DO)		KTY sensors*	2-wire connection	2.5 kV	**857-820**

*KTY81–110, KTY81–120, KTY81–150, KTY82–110, KTY82–120, KTY82–150, KTY81–121, KTY82–121, KTY81–122, KTY82–122, KTY81-210, KTY81-220, KTY82-210, KTY82-220, KTY81-221, KTY82-221, KTY81-222, KTY82-222, KTY81-250, KTY82-250, KTY83–110, KTY83–120, KTY83–150, KTY83–121, KTY83–122, KTY83–151, KTY84–130, KTY84–150, KTY84–151, KTY16, KTY19, ST13, ST20

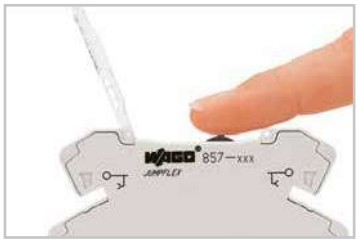
Configuration Options:



DIP switches



Bluetooth® Adapter 750-921



Push/slide switch
(857 Series only)

	Isolation Voltage	Output Signal			Nominal Supply Voltage U_s	Configuration	Specialty Functions
		Current	Voltage	Bipolar Signals (I/U)			
	4 kV	0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V	±10 mA ±20 mA ±5 V ±10 V	24 VDC	DIP switches, interface configuration software/app/display	Digital output (DO), clipping, relay (1 changeover contact)
	2.5 kV	0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V		24 VDC	DIP switches, interface configuration software/app	Digital output (DO), clipping
	2.5 kV	0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V		24 VDC	DIP switches, interface configuration software/app	Digital output (DO), clipping

	Sensor Temperature Range	Output Signal			Nominal Supply Voltage U_s	Configuration	Specialty Functions
		Current	Voltage				
	-200 °C ... +850 °C	0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V		24 VDC	DIP switches	Clipping
	-200 °C ... +850 °C	0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V		24 VDC	DIP switches, interface configuration software/app	Clipping
	Type J: -150 °C ... +1,200 °C **Type K:** -150 °C ... +1,350 °C	0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V		24 VDC	DIP switches	Clipping
	Type J: -150 °C ... +1,200 °C **Type K:** -150 °C ... +1,350 °C	0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V		24 VDC	DIP switches, interface configuration software/app	Clipping
		0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V		24 VDC	DIP switches	Clipping
		0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V		24 VDC	DIP switches	Digital output (DO), clipping

Ambient operating temperature range:

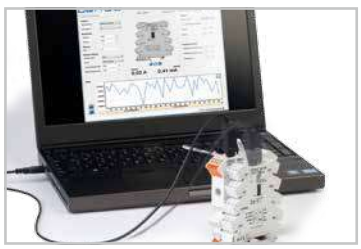
857 Series: -25 °C ... +70 °C
2857 Series: -40 °C ... +70 °C



2857-900 Configuration Display (2857 Series only)

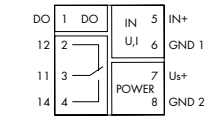
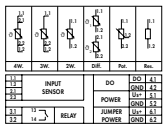
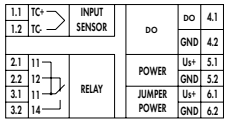


JUMPFLEX®-ToGo Smartphone App

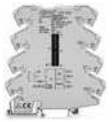
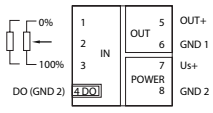
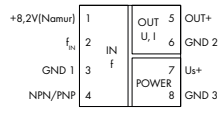
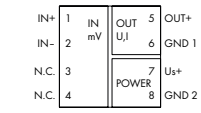


Interface Configuration Software with WAGO USB Communication cable 750-923

JUMPFLEX® Signal Conditioning System
Threshold Value Switches
857/2857 Series

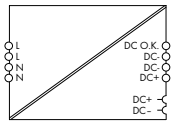
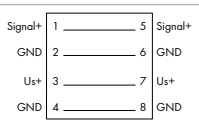
	Description		Input Signal			Item No.
			Current	Voltage	Bipolar Signals (I/U)	
	**Threshold Value Switch** with digital output (DO), analog input and changeover relay output		0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V, 1 ... 5 V, 0 ... 10 V, 2 ... 10 V 0 ... 15 V, 0 ... 30 V	±10 mA ±20 mA ±5 V ±10 V	**857-531**
	**RTD Threshold Value Switch**		0 ... 100 kΩ, Pt100, Pt200, Pt500, Pt1000, Pt5000, Pt10,000, Pt10 ... 20,000			**2857-533**
	**Thermocouple Threshold Value Switch**		Type J, K, E, N, R, S, T, B, C			**2857-534**

Signal Conditioners with Specialty Functions

	Description		Input Signal	Item No.
	**Potentiometer Signal Conditioner** with digital output (DO)		Potentiometers: 0 ... 100 kΩ Resistors: 10 ...100 kΩ	**857-809**
	**Frequency Signal Conditioner**		Frequency signals, NAMUR, NPN or PNP sensors: 0.1 Hz ... 120 kHz	**857-500**
	**Millivolt Signal Conditioner with ranges −100 mV ... +100 mV and 0 mV ... 1000 mV**		0 mV ... 200 mV to 0 mV ... 1000 mV, ±100 mV	**857-819**

Ambient operating temperature for all devices: −25 °C ... +70 °C

Accessories

	Description		Item No.
	**Switched-Mode Power Supply** in 2857 Series housing		**787-2852**
	**Supply and Through Module**		**857-979**
	**Configuration Display**	Easy mounting on 2857 Series modules	**2857-900**
	**Push-In Type Jumper Bars,** insulated, 18 A, light gray insulated, 18 A, colored	○ 2-way ○ 3-way ⋮ ○ 10-way ○ yellow ○ red ○ blue	**859-402** **859-403** ⋮ **859-410** **.../000-029** **.../000-005** **.../000-006**
	**Comb-Style Jumper Bar** for clamping unit	○ 2-way	**281-482**



Application example for 281-482 Comb-Style Jumper Bar

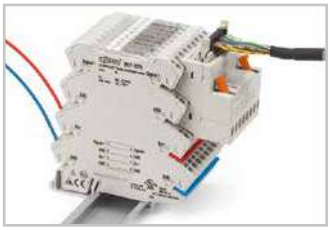
	Isolation Voltage	Output Signal		Nominal Supply Voltage U_s	Configuration	Specialty Functions
		Relay (1 Changeover Contact)	Relay (1 Make Contact)			
	2.5 kV	250 VAC 6 A		24 VDC	DIP switches, push/slide switch, interface configuration software/app	Digital output (DO)
	4 kV		250 VAC 6 A	24 VDC	DIP switches, interface configuration software/app/display	Digital output (DO)
	4 kV	250 VAC 6 A		24 VDC	DIP switches, interface configuration software/app/display	Digital output (DO)

	Isolation Voltage	Output Signal		Nominal Supply Voltage U_s	Configuration	
		Current	Voltage			
	2.5 kV	0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V	24 VDC	DIP switches, push/slide switch, interface configuration software/app	Clipping
	2.5 kV	0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V	24 VDC	DIP switches, interface configuration software/app	Clipping
	2.5 kV	0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V	24 VDC	DIP switches, interface configuration software/app	Clipping

8

Accessories

	Description		Item No.
	**Interface Adapter**	with 16-pole ribbon cable connector per DIN 41651, for signal conditioners	**857-980**
	**Ribbon Cable***	16-pole, free end, 2 m long	**706-100/1602-200**
	***Bluetooth*® Adapter**		**750-921**
	**WAGO USB Communication Cable**,connection between PC and coupler/controller (suitable for *JUMPFLEX*®)	2.5 m	**750-923**
		5 m	**750-923/000-001**

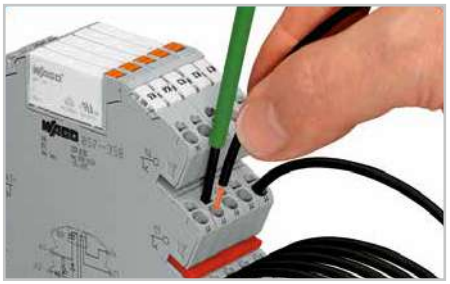


Application example for 857-980 Interface Adapter and 706-100/1602-200 Ribbon Cable

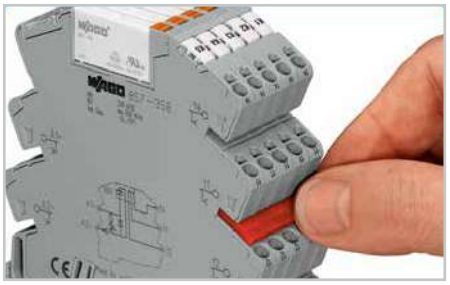
*Additional cables upon request

Relay Modules
– System Overview and Installation –

857 Series Relay Sockets



Inserting a conductor via operating tool.



Easy commoning via adjacent jumpers.

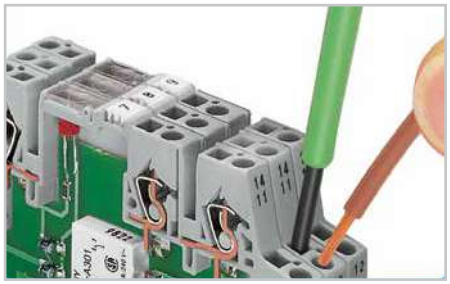


Marking via WMB Multi Marking System.

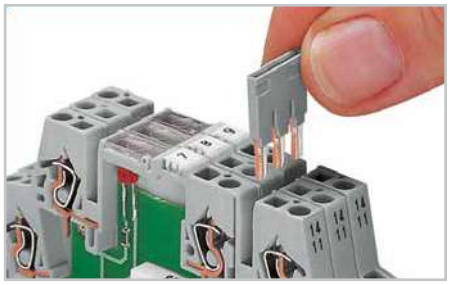


Removing a relay via ejector.

859 Series Rail-Mounted Terminal Blocks with Relay and Optocoupler



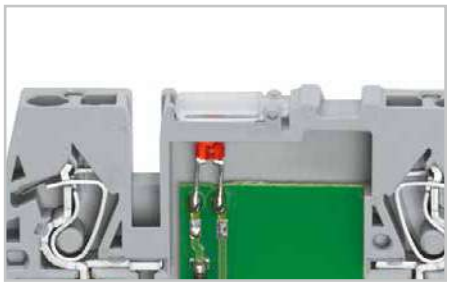
Inserting a conductor via operating tool.



Easy commoning via adjacent jumpers.

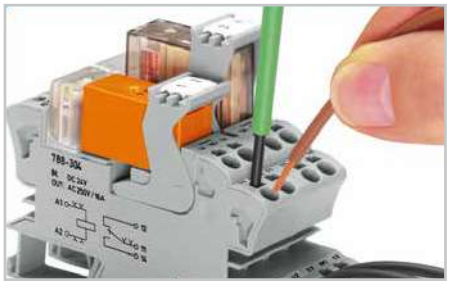


Marking via Miniature WSB Quick Marking System.

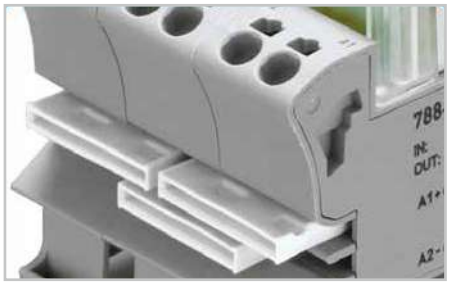


LED status indication

788 Series Sockets with a Miniature Switching Relay



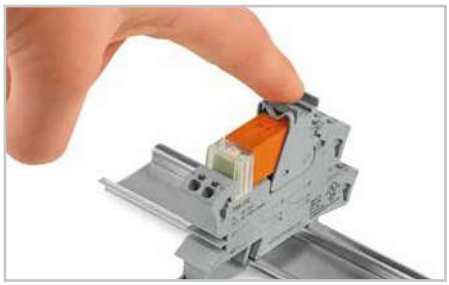
Inserting a conductor via operating tool.



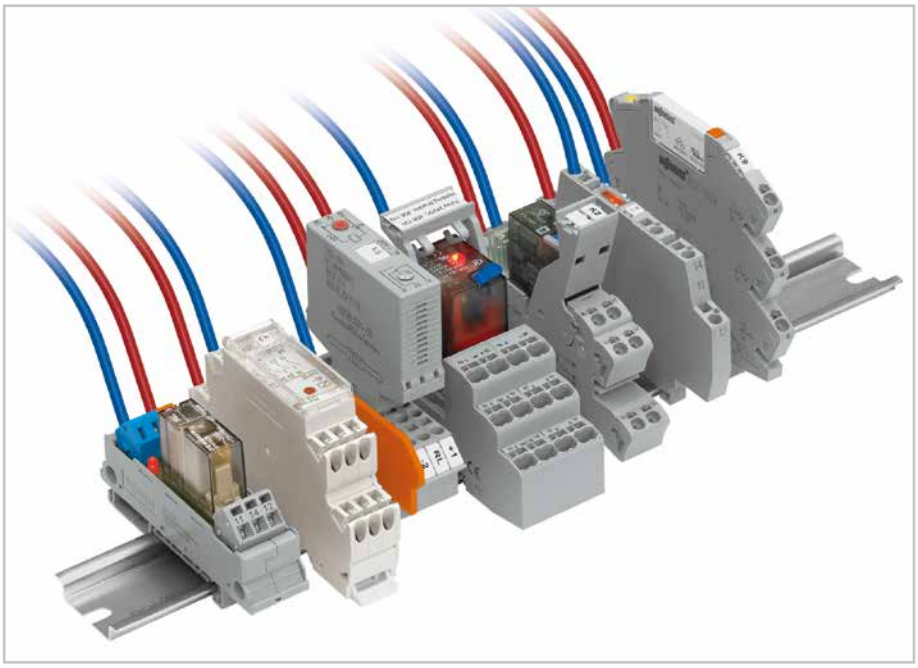
Easy commoning via adjacent jumpers.



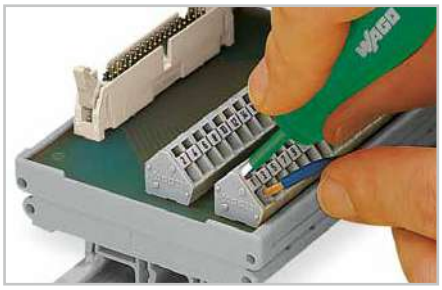
Marking via WMB Multi Marking System and group marker carriers.



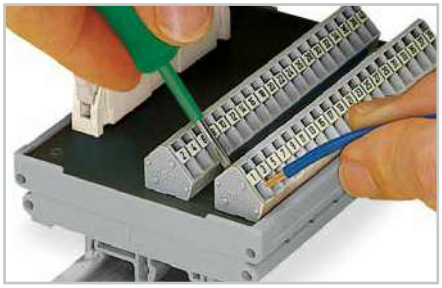
Relay socket with ejector



288 Series DIN-Rail-Mount Relay Modules

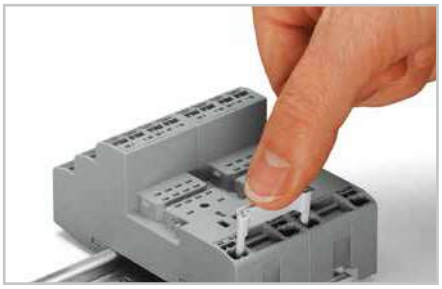


"Front-entry" conductor termination



"Side-entry" conductor termination

858 Series Sockets with an Industrial Relay



Commoning by simply pushing an adjacent jumper into conductor entry holes.



Removing jumper via operating tool.



Inserting/ejecting a relay.

789 Series Relay Modules in a DIN-Rail-Mount Enclosure

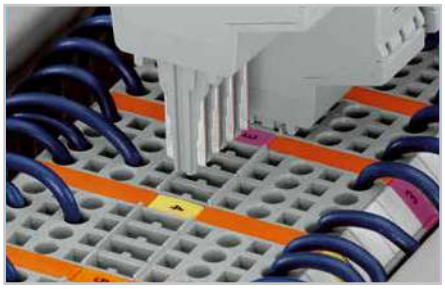


Inserting a conductor via operating tool.

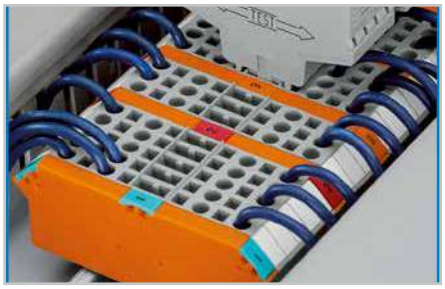


Easy commoning via adjacent jumpers.

286/786 Series Pluggable Function Modules for Carrier Terminal Blocks



Coding ensures correct polarity.



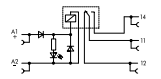
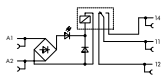
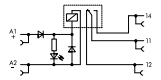
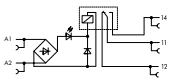
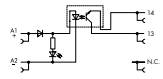
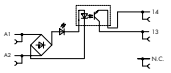
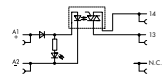
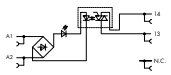
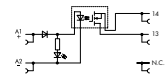
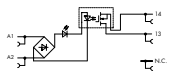
Marking via WMB Multi Marking System.



Function testing via touch-proof test slots.

8

Relay Modules
Miniature Switching and Solid-State Relay Sockets
857 Series

	Description		Input Nominal Voltage U_N	Max. Switching Voltage	Limiting Continuous Current	Item No.
	Relay modules with **1 changeover contact**		12 VDC 24 VDC 48 VDC 60 VDC	250 VAC	6 A	**857-303** **857-304** **857-305** **857-306**
			AC/DC 24 V 115 V 230 V 24 ... 230 V	250 VAC	6 A	**857-354** **857-357** **857-358** **857-359**
	Relay modules with **1 changeover contact** and gold contacts		24 VDC	250 VAC*	6 A*	**857-314**
			AC/DC 24 V 115 V 230 V 24 ... 230 V	250 VAC*	6 A*	**857-364** **857-367** **857-368** **857-369**
	Solid-state relay modules		24 VDC	0 ... 48 VDC	100 mA	**857-704**
			115 VAC/DC	0 ... 48 VDC	100 mA	**857-707**
			230 VAC/DC	0 ... 48 VDC	100 mA	**857-708**
	Solid-state relay modules		24 VDC	24 ... 240 VAC	1 A	**857-714**
			115 VAC/DC	24 ... 240 VAC	1 A	**857-717**
			230 VAC/DC	24 ... 240 VAC	1 A	**857-718**
	Solid-state relay modules		24 VDC	0 ... 24 VDC	2 A	**857-724**
			115 VAC/DC	0 ... 24 VDC	2 A	**857-727**
			230 VAC/DC	0 ... 24 VDC	2 A	**857-728**

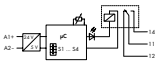
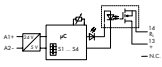
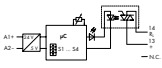
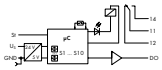
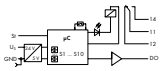
*To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents shall not be exceeded.
Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce the service life.

Conductor range (857 Series): 0.34 ... 2.5 mm² / 22 ... 14 AWG
Connection technology (857 Series): Push-in CAGE CLAMP® (see page 14)

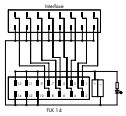
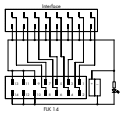
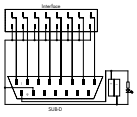
Marking using WMB Multi markers

For jumpers, see page 213.

Relay Modules
Multifunction Timer Relay Modules
857 Series

	Description		Input Nominal Voltage U_N	Output Nominal Voltage	Limiting Continuous Current	Item No.
	Timer relay module with **1 changeover contact,** 4 functions, 4 time ranges		16.8 ... 31.2 VDC	250 VAC	6 A	**857-604**
	Solid-state relay module with **1 make contact,** 4 functions, 4 time ranges		20.4 ... 31.2 VDC	0 ... 24 VDC	2 A	**857-624**
	Solid-state relay module with **1 make contact,** 4 functions, 4 time ranges		20.4 ... 31.2 VDC	24 ... 230 VAC	1 A	**857-634**
	Timer relay module with **1 changeover contact,** 14 functions, 8 time ranges		16.8 ... 31.2 VDC	250 VAC	6 A	**857-640**
	Timer relay module with **1 changeover contact,** 7 functions, 2 x 8 time ranges		16.8 ... 31.2 VDC	250 VAC	6 A	**857-642**

8-Channel Interface Adapter for System Wiring

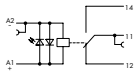
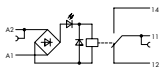
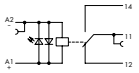
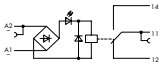
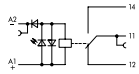
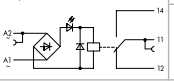
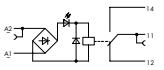
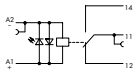
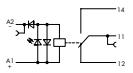
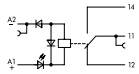
	Description		Nominal Voltage	Current Carrying Capacity per Channel	Limiting Continuous Current	Item No.
	8-channel **adapter,** with 14-pole interface cable connector, high-side switching input**		24 VDC	1 A	2.5 A	**857-981**
	8-channel **adapter,** with 14-pole interface cable connector, high-side switching output***		24 VDC	1 A	2.5 A	**857-982**
	8-channel **adapter,** with D-sub male connector, with 15-pole interface cable connector, high-side switching input**		24 VDC	1 A	2.5 A	**857-986**

**For use on the 857 Series Relay Module's coil side
***For use on the 857 Series Relay Module's contact side

	Assignment of I/O-Modules to Interface Adapters
	**750-1500** (16 DO) compatible with **857-981** (DO)
	750-1502 (8 DO / 8 DI) compatible with **857-981** (DO) and **857-982** (DI)


Application example

Relay Modules
Rail-Mounted Terminal Blocks with a Miniature Switching Relay
859 Series

	Description		Input Nominal Voltage U_N	Max. Switching Voltage	Limiting Continuous Current	Item No.
	Relay modules with **1 changeover contact**		5 VDC 12 VDC 24 VDC 48 VDC 60 VDC	250 VAC	5 A	**859-302** **859-303** **859-304** **859-305** **859-306**
	Relay modules with **1 changeover contact**		12 VAC/DC 24 VAC/DC 48 VAC/DC 115 VAC/DC 230 VAC/DC	250 VAC	5 A	**859-353** **859-354** **859-355** **859-357** **859-358**
	Relay module with **1 changeover contact** and gold contacts		24 VDC	250 VAC*	5 A*	**859-314**
	Relay modules with **1 changeover contact**, gold contacts and extended input voltage/temperature range		24 VDC 36 VDC 48 VDC 115 VDC	250 VAC*	3 A*	**859-392** **859-386** **859-384** **859-317**
	Relay module with **1 changeover contact** and gold contacts		230 VAC	250 VAC*	5 A*	**859-359**
	Relay module with **1 changeover contact** and gold contacts		115 VAC	250 VAC*	5 A*	**859-360**
	Relay module with **1 changeover contact** and gold contacts		250 VAC*	250 VAC*	5 A*	**859-318**
	Relay module with **1 changeover contact**		115 VAC	250 VAC	5 A	**859-367**
	Relay module with **1 changeover contact** and defined turn-on/off threshold		230 VAC	250 VAC	5 A	**859-368**
	Relay module with **1 changeover contact** and extended input voltage/ temperature range		24 VDC	250 VAC	3 A	**859-390**
	Relay module with **1 changeover contact** and extended input voltage/temperature range		110 VDC	250 VAC	3 A	**859-391**
	Relay modules with **1 changeover contact** and extended input voltage/temperature range		24 VDC 36 VDC 48 VDC 72 VDC 110 VDC	250 VAC	3 A	**859-398** **859-394** **859-397** **859-393** **859-399**

*To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents shall not be exceeded.
Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce the service life.

Conductor range (859 Series): 0.08 … 2.5 mm² / 28 … 14 AWG
Connection technology (859 Series): CAGE CLAMP® (see page 14)

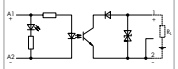
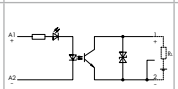
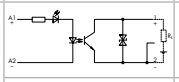
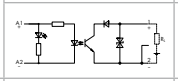
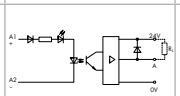
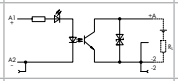
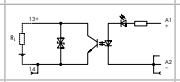
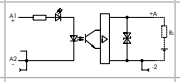
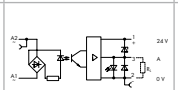
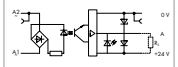
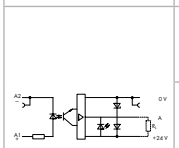
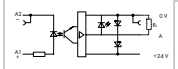
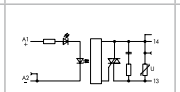
Marking via Miniature WSB Quick Marking System

For jumpers, see page 204.

Note:

For rail-mounted terminal blocks with overvoltage protection (792 Series), see Full Line Catalog.

Optocoupler Modules
Rail-Mounted Terminal Blocks with an Optocoupler
859 Series

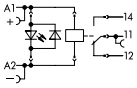
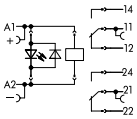
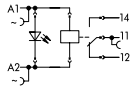
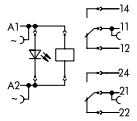
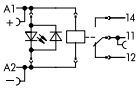
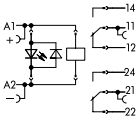
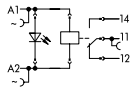
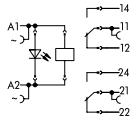
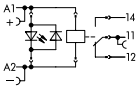
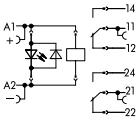
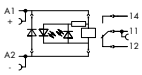
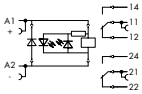
	Description		Input Nominal Voltage U_N	Output Nominal Voltage	Limiting Continuous Current	Item No.
	Optocoupler module with an extended output voltage/temperature range, for railway applications		5 VDC	3 … 60 VDC	100 mA	**859-793**
	Optocoupler modules with an extended output voltage/temperature range, for railway applications		24 VDC 24 VDC	7 … 60 VDC 9 … 60 VDC	100 mA 100 mA	**859-791** **859-794**
	Optocoupler modules		24 VDC	3 … 30 VDC	100 mA	**859-796**
			5 VDC	3 … 30 VDC	100 mA	**859-795**
	Power optocoupler module, low-side switching		24 VDC	10 … 30 VDC	3 A	**859-720**
	Power optocoupler module		24 VDC	3 … 30 VDC	3 A	**859-730**
	Power optocoupler module		24 VDC	3 … 30 VDC	3 A	**859-740**
	Power optocoupler module		12 … 48 VDC	3 … 53 VDC	4 A	**859-744**
	Optocoupler module, high-side switching, increased input frequency up to 100 Hz, input voltage up to 270 VAC		230 VAC	20 … 30 VDC	500 mA	**859-772**
	Optocoupler modules, low-side switching		24 VDC	20 … 30 VDC	500 mA	**859-712**
			5 VDC	20 … 30 VDC	500 mA	**859-702**
			24 VDC	20 … 30 VDC	500 mA	**859-708**
			24 VDC	4 … 6.25 VDC	500 mA	**859-706**
	Optocoupler modules, high-side switching		5 VDC	20 … 30 VDC	500 mA	**859-752**
			24 VDC	20 … 30 VDC	500 mA	**859-758**
			24 VDC	4 … 6.25 VDC	500 mA	**859-756**
	Optocoupler module		5 VDC	24 … 260 VAC	500 mA	**859-902**

Accessories

	Description	Item No.
	**End and intermediate plate,** 1 mm thick, gray	**859-525**

8

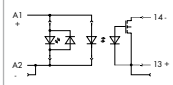
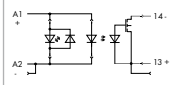
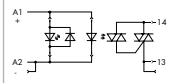
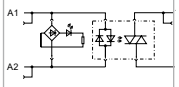
Relay Modules
Sockets with a Miniature Switching Relay
788 Series

	Description		Input Nominal Voltage U_N	Max. Switching Voltage	Limiting Continuous Current	Item No.
	Relay module with **1 changeover contact** and status indication (15 mm high relay)		12 VDC 24 VDC 48 VDC 60 VDC 110 VDC	250 VAC	16 A	**788-303** **788-304** **788-305** **788-306** **788-307**
	Relay module with **2 changeover contacts** and status indication (15 mm high relay)		12 VDC 24 VDC 48 VDC 60 VDC 110 VDC	250 VAC	2 x 8 A	**788-311** **788-312** **788-313** **788-314** **788-315**
	Relay module with **1 changeover contact** and status indication (15 mm high relay)		24 VAC 115 VAC 230 VAC	250 VAC	16 A	**788-506** **788-507** **788-508**
	Relay module with **2 changeover contacts** and status indication (15 mm high relay)		24 VAC 115 VAC 230 VAC	250 VAC	2 x 8 A	**788-512** **788-515** **788-516**
	Relay module with **1 changeover contact**, gold contacts and status indication (15 mm high relay)		24 VDC	250 VAC*	16 A*	**788-404**
	Relay module with **2 changeover contacts**, gold contacts and status indication (15 mm high relay)		24 VDC	250 VAC*	2 x 8 A*	**788-412**
	Relay module with **1 changeover contact**, gold contacts and status indication (15 mm high relay)		115 VAC 230 VAC	250 VAC*	16 A*	**788-607** **788-608**
	Relay module with **2 changeover contacts**, gold contacts and status indication (15 mm high relay)		115 VAC 230 VAC	250 VAC*	2 x 8 A*	**788-615** **788-616**
	Relay module with **1 changeover contact** and status indication (15 mm high relay)		24 VDC	250 VAC	16 A	**788-354**
	**Safety relay module** SR2M with **2 changeover contacts**, force-guided contacts and status indication		24 VDC	250 VAC	6 A	**788-384**
	Relay module with **1 changeover contact**, manual operation and status indication (25 mm high relay)		24 VDC	250 VAC	16 A	**788-341**
	Relay module with **2 changeover contacts**, manual operation and status indication (25 mm high relay)		24 VDC	250 VAC	2 x 8 A	**788-346**

*To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents shall not be exceeded.
Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce the service life.

Conductor range (788 Series): 0.34 … 2.5 mm² / 22 … 14 AWG
Connection technology (788 Series): Push-in CAGE CLAMP® (see page 14)
Marking via WMB Multi Marking System and marking strips

Solid-State Relay Modules
Sockets with a Solid-State Relay
788 Series

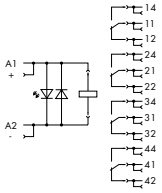
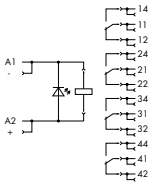
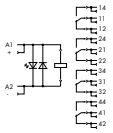
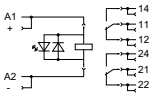
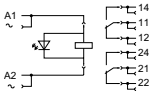
	Description		Input Nominal Voltage U_N	Output Nominal Voltage	Limiting Continuous Current	Item No.
	Solid-state relay module		24 VDC	0 ... 24 VDC	3.5 A	**788-700**
	Solid-state relay module		24 VDC	0 ... 24 VDC	5 A	**788-701**
	Solid-state relay module		24 VDC	24 ... 240 VAC	1 A	**788-720**
	Solid-state relay module		24 VAC/DC	12 ... 275 VAC	4 A	**788-721**

Accessories

	Description		Input Nominal Voltage U_N	Max. Switching Voltage	Limiting Continuous Current	Item No.
	Sockets for miniature switching relays	1 changeover contact, 15 mm high 2 changeover contacts, 15 mm high 1 changeover contact, 25 mm high 2 changeover contacts, 25 mm high	Depending on relay, max. 250 VAC	250 VAC	16 A / 2 x 8 A	**788-100** **788-102** **788-101** **788-103**
	Status indicators	24 VDC (12 ... 24 V)				**788-120**
		48 VDC (48 ... 60 V)				**788-121**
		110 VDC				**788-122**
		24 VAC				**788-123**
		115 VAC				**788-124**
		230 VAC				**788-125**
	Suppressor module for relay socket	Max. operating voltage: 230 VAC, 50 ... 60 Hz				**788-148**
	Pluggable miniature switching relays (15 mm high relay)	1 changeover contact	12 VDC 24 VDC 48 VDC 60 VDC 110 VDC 24 VAC 115 VAC 230 VAC	250 VAC	16 A	**788-150** **788-154** **788-158** **788-162** **788-166** **788-170** **788-174** **788-178**
		2 changeover contacts	12 VDC 24 VDC 48 VDC 60 VDC 110 VDC 24 VAC 115 VAC 230 VAC	250 VAC	2 x 8 A	**788-152** **788-156** **788-160** **788-164** **788-168** **788-172** **788-176** **788-180**
	Push-in type jumper bars, $I_{max.}$ 18 A	2-way 3-way 4-way 6-way 8-way				**788-113** **788-114** **788-115** **788-116** **788-117**
	Operating tool with a partially insulated shaft	Type 2, (3.5 x 0.5) mm blade				**210-720**

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Relay Modules
Sockets with an Industrial Relay
858 Series

	Description		Input Nominal Voltage U_N	Max. Switching Voltage	Limiting Continuous Current	Item No.
	Relay module with **4 changeover contacts**		24 VDC	250 VAC	4 x 5 A	**858-304**
	Relay module with **4 changeover contacts** and gold contacts		24 VDC	250 VAC*	4 x 5 A*	**858-314**
	Relay modules with **4 changeover contacts**		115 VAC 230 VAC	250 VAC	4 x 5 A	**858-507 858-508**
	Relay modules with **4 changeover contacts** and gold contacts		115 VAC 230 VAC	250 VAC*	4 x 5 A*	**858-517 858-518**
	Relay modules with **4 changeover contacts** and extended input voltage/temperature range, with standard and gold contacts		24 VDC	250 VAC	4 x 5 A	**858-354**
				250 VAC*	4 x 5 A*	**858-355**
	Relay modules with **2 changeover contacts**		24 VDC	250 VAC	2 x 12 A	**858-324**
			230 VAC			**858-528**

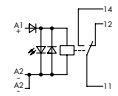
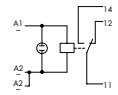
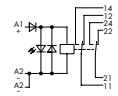
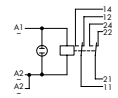
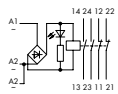
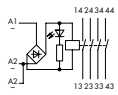
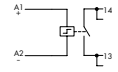
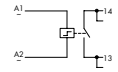
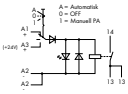
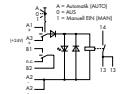
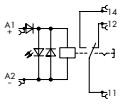
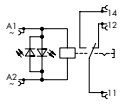
*To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents shall not be exceeded.
Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce the service life.

Accessories

	Description		Input Nominal Voltage U_N	Max. Switching Voltage	Limiting Continuous Current	Item No.
	Sockets for miniature switching relays	2 and 4 changeover contacts	Depending on relay, max. 250 VAC	250 VAC	4 x 6 A (4 changeover contacts); 2 x 12 A (2 changeover contacts)	**858-100**
	Pluggable industrial relays	4 changeover contacts	24 VDC 230 VAC 24 VAC	250 VAC	5 A	**858-150 858-151 858-154**
	Pluggable industrial relays with gold contacts	2 changeover contacts	12 VDC 230 VAC	250 VAC*	5 A*	**858-152 858-153**
	Push-in type jumper bar, I_N 1 A	Commoning one potential on both control and load side				**858-402**
	Mounting bracket for industrial relays	(33.5 ... 35.5 mm high)				**858-110**

Conductor range (858 Series): 2 x 0.34 ... 2 x 1.5 mm² / 22 ... 16 AWG
Connection technology (858 Series): Push-in CAGE CLAMP® (see page 14)
Marking via WMB Multi Marking System and marking strips

Relay Modules
Relay Modules in a DIN-Rail-Mount Enclosure
789 Series

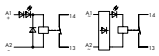
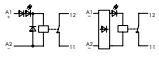
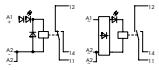
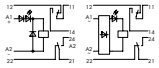
	Description		Input Nominal Voltage U_N	Max. Switching Voltage	Limiting Continuous Current	Item No.
	Relay module with **1 changeover contact**		24 VDC	250 VAC	12 A	**789-304**
	Relay module with **1 changeover contact**		230 VAC	250 VAC	12 A	**789-508**
	Relay module with **2 changeover contacts**		24 VDC	250 VAC	8 A	**789-312**
	Relay modules with **2 changeover contacts**		24 VAC/DC 230 VAC	250 VAC	8 A	**789-512 789-516**
	Relay modules with **2 break contacts** and **2 make contacts**		12 VAC/DC 24 VAC/DC	250 VAC	4 AAC	**789-535 789-536**
	Relay modules with **4 make contacts**		12 VAC/DC 24 VAC/DC	250 VAC	4 AAC	**789-551 789-552**
	Latching relay module with **1 make contact**		24 VDC	250 VAC	16 A	**789-571**
	Latching relay module with **1 make contact**		230 VAC	250 VAC	16 A	**789-570**
	Relay modules with **1 make contact** and Manual/OFF/Auto switch		24 VDC	250 VAC	16 A	**789-323**
	Relay modules with **1 make contact** and Manual/OFF/Auto switch, with control contact					**789-325**
	Relay module with **1 changeover contact** and manual operation		24 VDC	250 VAC	12 A	**789-1341**
	Relay module with **1 changeover contact** and manual operation		230 VAC	250 VAC	12 A	**789-1544**

Conductor range (789 Series): 0.08 … 2.5 mm² / 28 … 14 AWG
Connection technology (789 Series): CAGE CLAMP® (see page 14)
Marking via Miniature WSB Quick Marking System

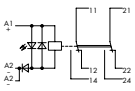
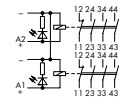
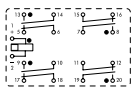
Jumper for 789 Series

	Description	Item No.
	**Push-in type jumper bar,** I_N 16 A, 12-way, to be cut to the required length	**789-112**

Relay Modules
Mounting Carriers with a Miniature Switching Relay
288 Series

	Description		Input Nominal Voltage U_N	Max. Switching Voltage	Limiting Continuous Current	Item No.
	Relay modules with **1 make contact**, relay pre-soldered onto mounting carrier		24 VDC 24 VAC/DC 48 VAC/DC 115 VAC/DC	250 VAC	5 A	**288-364** **288-564** **288-565** **288-567**
	Relay modules with **1 break contact**, relay pre-soldered onto mounting carrier		24 VDC 24 VAC/DC	250 VAC	5 A	**288-368** **288-568**
	Relay module with **1 changeover contact**, relay pre-soldered onto mounting carrier, with pluggable connectors		24 VAC/DC	250 VAC	5 A	**288-554**
	Relay modules with **1 changeover contact**, relay pre-soldered onto mounting carrier		24 VDC 24 VAC/DC 230 VAC	250 VAC	6 A	**288-304** **288-504** **288-508**
	Relay modules with **2 changeover contacts**, relay pre-soldered onto mounting carrier		24 VDC 24 VAC/DC	250 VAC	6 A	**288-312** **288-512**
	Relay module with 1 **make contact**, relay pre-soldered onto mounting carrier, switches high inrush current loads (e.g., filament lamp loads)		24 VDC	250 VAC	16 A	**288-320**
	Bistable relay module with **1 changeover contact**, relay pre-soldered onto mounting carrier		24 VDC	250 VAC	6 A	**288-380**

Relay Modules with Force-Guided Contacts

	Description		Input Nominal Voltage U_N	Max. Switching Voltage	Limiting Continuous Current	Item No.
	Relay module with **2 changeover contacts** and force-guided contacts, relay pre-soldered onto mounting carrier		24 VDC	250 VAC	5 A	**288-437**
	2 safety relay modules Hengstler H-462, with **3 make contacts** and **1 break contact**, pre-mounted on carrier		24 VDC	250 VAC	6 A	**288-435**
	Safety relay modules SDS SF 4, with **4 break contacts** and **4 make contacts**, 1 relay pre-soldered onto mounting carrier		5 VDC 12 VDC 24 VAC/DC 48 VAC/DC 230 VAC/DC	250 VAC	6 A	**288-412** **288-413** **288-414** **288-415** **288-418**

Conductor range (288 Series): 0.08 … 2.5 mm² / 28 … 14 AWG
Connection technology (288 Series): CAGE CLAMP® (see page 14)

Marking using WMB Multi markers

Relay Modules
Technical Information

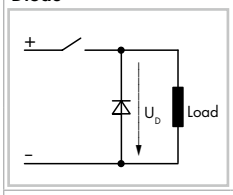
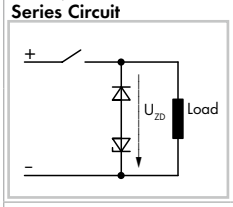
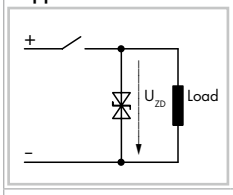
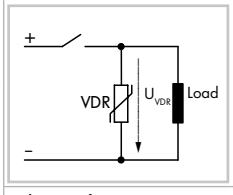
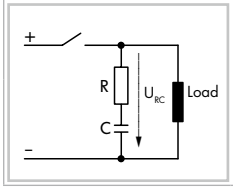
Contact Material

For a contact reliability, the contact resistance over the entire operating life of the relay should remain relatively low and constant. A variety of contact materials can be selected depending on the load type, switching current, switching voltage and the desired number of switching cycles. The accompanying table shows the materials with the typical features and application notes that are used for the WAGO relay modules.

Contact material	Features and Application	Application Range
AgNi 0.15 + 5 µ Au	Excellent corrosion resistance, low and constant contact resistances at extremely low switching power, for dry circuits	µV ... 30 V µA ... 0.2 A
AuAg 10 via AgNi 15 + Au	Behavior as a 5µ gold contact, but 5 times higher wear resistance, for all circuits from µW range up to 100 W or 1 kVA	100 mV/10 µA
AgCd O + 1 µ Au	Low welding tendency, high burn-off resistance at higher switching power, suitable for small switching loads	≥ 5 V ≥ 10 mA
Ag Cd 0, with gold flash	Low welding tendency, high burn-off resistance at higher switching power, Au as storage protection	≥ 12 V ≥ 100 mA
Ag Ni 0.15 + HV	Good mechanical stability, low welding tendency and low contact resistance, universal use at moderate loads	≥ 12 V 5 mA ... 10 A
Ag Sn 0_2	Low welding tendency, extremely high burn-off resistance at high switching power, suitable for circuits with high switch on/off loads, DC circuits	≥ 5 V/100 mA ≥ 10 V/10 mA ≥ 24 V/1 mA
Ag alloy, with gold flash	Good mechanical stability, low welding tendency, large application range for small to medium switching power	10^{-3} W

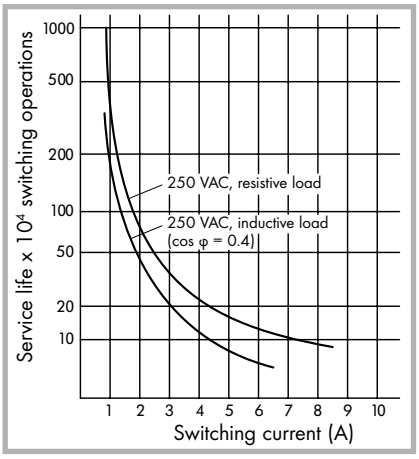
Contact Protective Circuit

When switching off inductive loads, such as contactors and solenoid valves, transients occur with peak voltages up to several thousand volts. These transients often exceed the permissible EMC standard limits and must therefore be limited by external circuits. They also cause an electric arc at the switching contact, which can destroy the contact or or can significantly diminish the relay's service life and reliability. The following protective circuits, which are outlined in the table, are connected directly to the source in parallel to the load and have proven to be successful.

Load Circuit	Additional Fall Delay	Defined Induction Voltage Limitation	Bipolar-Effective Attenuation		
Diode 	Large	Yes (U_D)	No	Advantages: Disadvantages:	• Easy implementation • Cost-effective, reliable • Uncritical dimensioning • Small induction voltages • Attenuation only via load resistor
Diode/Zener Diode Series Circuit 	Medium to small	Yes (U_{ZD})	No	Advantages: Disadvantages:	• Uncritical dimensioning • Attenuation only above U_{ZD}
Suppressor Diode 	Medium to small	Yes (U_{ZD})	Yes	Advantages: Disadvantages:	• Cost-effective • Uncritical dimensioning • Limitation of positive peaks • Suitable for AC voltage • Attenuation only above U_{ZD}
Varistor 	Medium to small	Yes (U_{VDR})	Yes	Advantages: Disadvantages:	• High energy absorption • Uncritical dimensioning • Suitable for AC voltage • Attenuation only above U_{VDR}
R/C Combination 	Medium to small	No	Yes	Advantages: Disadvantages:	• RF attenuation via power storage • Suitable for AC voltage • Level-dependent attenuation • Accurate dimensioning required • High inrush current

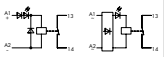
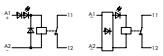
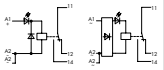
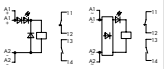
Service Life

A distinction must be made between the mechanical life, which indicates the number of switching cycles without contact load, and the electrical service life at maximum load, which indicates the number of switching cycles with maximum switching power and resistive load. Reduced power increases the service life compared to the value of the maximum load. The following figure shows the typical curve between switching current and service life of a relay.



8

Relay Modules
Pluggable Relay Modules for Carrier Terminal Blocks
286 Series

	Description		Input Nominal Voltage U_N	Max. Switching Voltage	Limiting Continuous Current	Item No.
	Relay module with **1 make contact** ❶		24 VDC	250 VAC	5 A	**286-364**
	Relay module with **1 break contact** ❶		24 VDC	250 VAC	5 A	**286-368**
	Relay module with **1 changeover contact** ❷		24 VDC	250 VAC	7 A	**286-304**
	Relay modules with **1 changeover contact** ❷		115 VAC 230 VAC	250 VAC	7 A	**286-507** **286-508**
	Relay modules with **1 changeover contact** and gold contacts ❷		24 VDC 24 VAC/DC	250 VAC*	1 A*	**286-394** **286-594**
	Relay modules with **2 changeover contacts** ❸		24 VDC 110 VDC 220 VDC	250 VAC	7 A	**286-312** **286-315** **286-316**
	Relay modules with **2 changeover contacts** ❸		24 VAC 115 VAC 230 VAC	250 VAC	7 A	**286-512** **286-515** **286-516**
	Relay module with **1 break contact** and **1 make contact** ❸		24 VDC	250 VAC	6 A	**286-320**
	Relay module with **2 make contacts** ❸		24 VDC	250 VAC	6 A	**286-328**

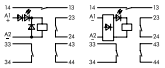
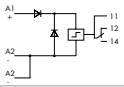
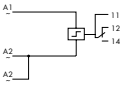
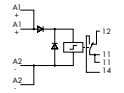
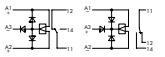
*To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents shall not be exceeded.
Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce the service life.

Marking via 4 mm WSB marker cards

❶ ... ❺: For compatible terminal blocks, see page 219.



Relay Modules
Pluggable Relay Modules for Carrier Terminal Blocks
286 Series

	Description		Input Nominal Voltage U_N	Max. Switching Voltage	Limiting Continuous Current	Item No.
	Relay module with **1 break contact** and **3 make contacts** ❹		230 VAC	250 VAC	5 A	**286-548**
	Relay module with **4 make contacts** ❹		115 VAC	250 VAC	5 A	**286-555**
	Relay module with 4 **changeover contacts** ❺		230 VAC	250 VAC	4 AAC	**286-579**
	Relay module with **1 make contact**, switches higher DC loads ❷		24 VDC	250 VAC	5 A	**286-376**
	Latching relay with **1 changeover contact** ❷		24 VDC	250 VAC	5 A	**286-573**
			230 VAC			**286-574**
	Latching relay with **1 changeover contact,** for railway applications ❷		24 VDC	250 VAC	3 A (6 A up to +50 °C)	**286-575**
	Bistable relay modules with **1 changeover contact**, high-side/low-side switching ❷		24 VDC 24 VDC	250 VAC	6 A	**286-380** **286-381**

8

Terminal Blocks for Pluggable Modules

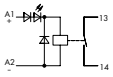
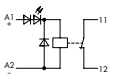
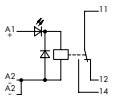
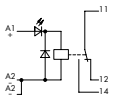
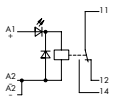
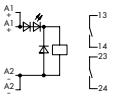
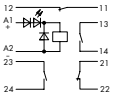
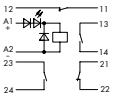
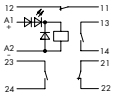
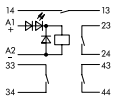
CAGE CLAMP®

0.08 … 2.5 mm² / 28 … 14 AWG

	Description		Width	Item No.	Assignment
	Terminal blocks for pluggable modules with **2-conductor blocks**	Orange separator plate	12 mm	**280-618**	❶
			17 mm	**280-619**	❷
			22 mm	**280-638**	❸
			27 mm	**280-639**	❹
	Terminal blocks for pluggable modules with **4-conductor blocks**	Orange separator plate	12 mm	**280-608**	❶
		Marking plate	15 mm	**280-762**	❶
		Orange separator plate	17 mm	**280-609**	❷
		Marking plate	20 mm	**280-763**	❷
		Orange separator plate	22 mm	**280-628**	❸
		Marking plate	25 mm	**280-764**	❸
		Orange separator plate	27 mm	**280-629**	❹
		Marking plate	30 mm	**280-765**	❹
		Orange separator plate	37 mm	**280-636**	❺

For information on CAGE CLAMP® connection, see page 14.

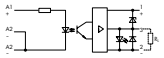
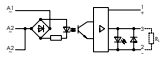
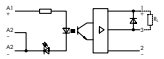
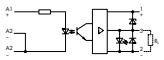
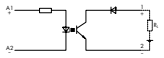
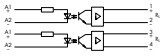
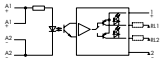
Relay Modules
Pluggable Relay Modules for Carrier Terminal Blocks
286 Series

	Description		Input Nominal Voltage U_N	Max. Switching Voltage	Limiting Continuous Current	Item No.
	Relay module with **1 changeover contact** and extended input voltage/temperature range ❶		24 VDC	250 VAC	3 A	**286-364/004-000**
	Relay module with **1 break contact** and extended input voltage/temperature range		24 VDC	250 VAC	3 A	**286-368/004-000**
	Relay module with **1 changeover contact** and extended input voltage/temperature range ❷		24 VDC 110 VDC	250 VAC	3 A	**286-304/004-000**
	Relay module with **1 changeover contact** and extended input voltage/temperature range ❷		24 VDC	250 VAC*	3 A*	**286-307/004-000**
	Relay module with **1 changeover contact** and extended input voltage/temperature range ❷		24 VDC	250 VAC	4 A	**286-394/004-000**
	Relay module with **2 break contacts** and extended input voltage/temperature range ❸		24 VDC	250 VAC	4 A	**286-312/004-000**
	Relay module with **1 break contact**, **1 changeover contact** and extended input voltage/temperature range ❸		24 VDC	250 VAC	4 A	**286-320/004-000**
	Relay module with **2 make contacts** and extended input voltage/temperature range ❸		24 VDC	250 VAC	4 A	**286-328/004-000**
	Relay module with **2 break contacts**, **2 make contacts** and extended input voltage/temperature range ❹		24 VDC	250 VAC	4 A	**286-336/001-000**
	Relay module with **3 make contacts**, **1 break contact** and extended input voltage/temperature range ❹		24 VDC	250 VAC	4 A	**286-344/004-000**

*To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents shall not be exceeded.
Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce the service life.

❶ ... ❺: For compatible terminal blocks, see page 219.

Optocoupler Modules
Pluggable Optocoupler Modules for Carrier Terminal Blocks
286 Series

	Description		Input Nominal Voltage U_N	Output Nominal Voltage	Limiting Continuous Current	Item No.
	Optocoupler modules, high-side switching ❷		24 VDC	3 … 6 VDC 10 … 20 VDC 20 … 30 VDC	500 mA	**286-750** **286-751** **286-752**
	Optocoupler modules, high-side switching ❷		230 VAC	3.5 … 7 VDC 10 … 20 VDC	500 mA	**286-754** **286-756**
	Optocoupler modules, low-side switching ❷		24 VDC	15 … 40 VDC	2 A	**286-720**
			24 VDC	15 … 40 VDC	5 A	**286-721**
	Optocoupler modules, high-side switching ❷		5 VDC	20 … 30 VDC	500 mA	**286-752/002-000**
			24 VDC	20 … 30 VDC	4 A	**286-723**
	Optocoupler module ❶		24 VDC	20 … 60 VDC	100 mA	**286-791**
	Dual-channel, optocoupler module ❸		2 x 24 VDC	2 x 20 … 30 VDC	2 x 250 mA	**286-792**
	Optocoupler module, with 2 inverted outputs ❸		24 VDC	20 … 30 VDC	500 mA	**286-790**

8

Terminal Blocks for Pluggable Modules

CAGE CLAMP®

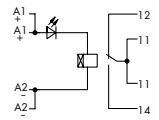
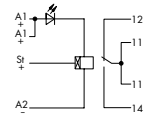
0.08 … 2.5 mm² / 28 … 14 AWG

	Description		Width	Item No.	Assignment
	Terminal blocks for pluggable modules with **2-conductor blocks**	Orange separator plate	12 mm	**280-618**	❶
			17 mm	**280-619**	❷
			22 mm	**280-638**	❸
			27 mm	**280-639**	❹
	Terminal blocks for pluggable modules with **4-conductor blocks**	Orange separator plate	12 mm	**280-608**	❶
		Marking plate	15 mm	**280-762**	❶
		Orange separator plate	17 mm	**280-609**	❷
		Marking plate	20 mm	**280-763**	❷
		Orange separator plate	22 mm	**280-628**	❸
		Marking plate	25 mm	**280-764**	❸
		Orange separator plate	27 mm	**280-629**	❹
		Marking plate	30 mm	**280-765**	❹
		Orange separator plate	37 mm	**280-636**	❺

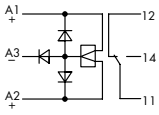
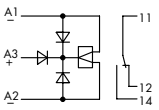
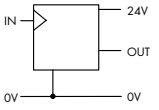
For information on CAGE CLAMP® connection, see page 14.

Pluggable Timer Relay Modules for Carrier Terminal Blocks, Specialty Relay Modules, Surge Suppression Modules
286 Series

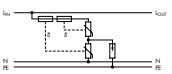
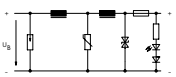
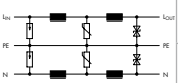
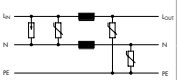
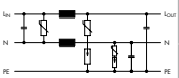
Pluggable Timer Relay Modules for Carrier Terminal Blocks

	Description		Input Nominal Voltage U_N	Max. Switching Voltage	Time Range	Item No.
	Pulse time delay relay module, **1 changeover contact** ❷		24 VDC	380 VAC	0.1 ... 1 s	**286-460**
					1 ... 10 s	**286-462**
					10 ... 100 s	**286-464**
	Multifunction timer relay module, 4 time ranges, 4 functions, **1 changeover contact** ❷		24 VDC	380 VAC	0.3 ... 3 s, 3 .. 12 s, 10 ... 100 s, 100 ... 800 s	**286-640**

Specialty Relay Modules

	Description		Input Nominal Voltage U_N	Max. Switching Voltage	Nominal Current I_N	Item No.
	Bistable relay module, high-side switching, **1 changeover contact** ❶		24 VDC	250 VAC	41.4 mA	**286-380**
	Bistable relay module, low-side switching, **1 changeover contact** ❶		24 VDC	250 VAC	41.4 mA	**286-381**
	Flip-flop module ❶		24 VDC	24 VDC	500 mA	**286-825**

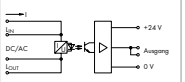
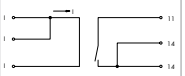
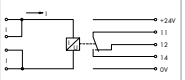
Surge Suppression Modules

	Description		Nominal Operating Voltage U_N	Operating Voltage	Nominal Current I_N	Item No.
	Single-stage suppression for 2-pole control and power circuits ❶		230 VAC	300 VAC	10 A	**286-838**
			115 VAC	150 VAC		**286-838/115-000**
	Three-stage suppression for 1-pole data, measurement and control circuits ❷		24 DC	30 VDC	0.1 A	**286-833**
	Three-stage suppression for 2-pole data, measurement and control circuits ❷		12 VDC	14 VDC	6 A	**286-834**
			24 VDC	30 VDC		**286-834/024-000**
	Two-stage suppression for 2-pole data, measurement, control and power circuits ❷		24 VAC/DC	30 VAC / 38 VDC	6 A	**286-831**
			24 VAC/DC	30 VAC / 38 VDC		**286-832**
	Two-stage suppression for 2-pole data, measurement, control and power circuits, with filter ❸		110 VDC	180 VDC	6 A	**286-844**
			115 VAC	140 VAC		**286-843**
			220 VDC	320 VDC		**286-841**
			230 VAC	250 VAC		**286-842**

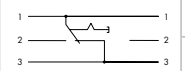
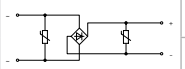
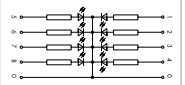
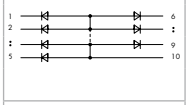
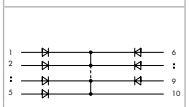
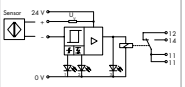
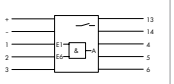
❶ ... ❺: For compatible terminal blocks, see page 219.

Current Flow Monitoring Modules, Specialty Modules
286 Series

Current Flow Monitoring Modules

	Description		Current Monitoring Range	Voltage Range	Item No.
	**AC/DC** current flow monitoring module ❷		16 mADC / 35 ... 300 mAAC	10 ... 250 VAC/DC	**286-659**
	**DC** current flow monitoring module, **1 make contact** ❶		0.4 ... 3.5 ADC (−20 ... +40 °C) 0.4 ... 3 ADC (−20 ... +60 °C) 0.4 ... 2 ADC (−20 ... +70 °C)	12 ... 28 VDC	**286-662**
	**AC** current flow monitoring module, **1 changeover contact** ❸		0.2 ... 3 AAC (adjustable)		**286-664**

Specialty Modules

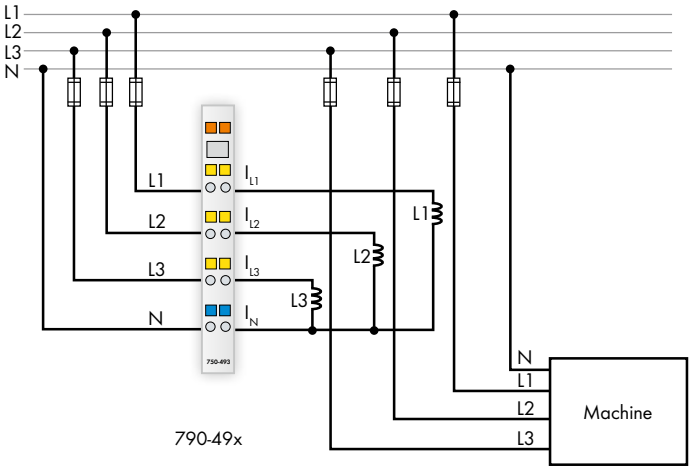
	Description		Operating Voltage	Characteristics		Item No.
	Switching modules, 1-pole, with changeover rocker switch ❶		24 VDC / 250 VAC	Switching current, resisitve AC 6 A	Switching current, inductive AC 4 A	**286-895**
			24 VDC / 250 VAC	Switching current, resisitve AC 6 A	Switching current, inductive AC 4 A	**286-896**
	Bridge rectifiers, with varistor protection ❶		24 VAC	Nominal current 1 A	Max. charging capacitator 2200 µF	**286-830**
			250 AC	Nominal current 1 A	Max. charging capacitator 500 µF	**286-840**
	LED gate module, with 8 LEDs, common cathode ❸		24 VDC	Power consumption at V_N 5.1 mA each LED		**286-822**
	Diode gate modules		250 VAC/DC	Common anode	3 diodes ❶	**286-803**
					5 diodes ❶	**286-805**
					7 diodes ❷	**286-807**
					9 diodes ❸	**286-809**
				Common cathode	3 diodes ❶	**286-813**
					5 diodes ❶	**286-815**
					7 diodes ❷	**286-817**
					9 diodes ❸	**286-819**
	NAMUR switching amplifier ❷		34 VDC	With transistor output		**286-881**
	AND gate module with 6 inputs, relay output with **1 make contact** ❸		24 VDC	Max. switching voltage 250 VAC / 120 VDC	Max. continuous current 3 A	**286-826**

8

Power and Energy Measurement ...
... via 3-Phase Power Measurement Modules from the WAGO-I/O-SYSTEM 750

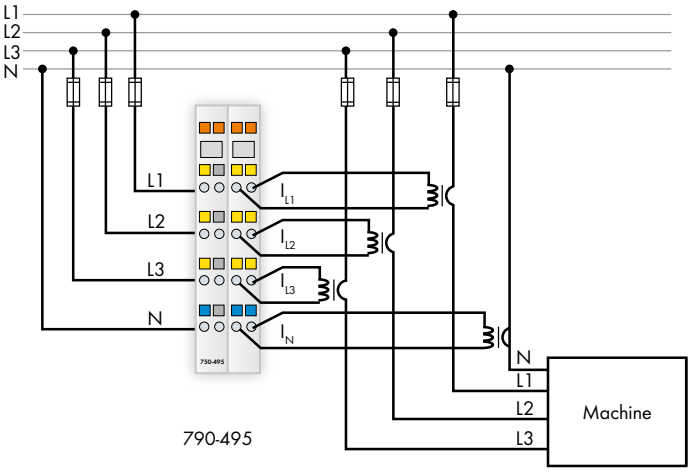
General Configurations

Power and energy measurement of a machine in a 480 VAC mains network via 750-493 or 750-494 3-Phase Power Measurement Modules



790-49x

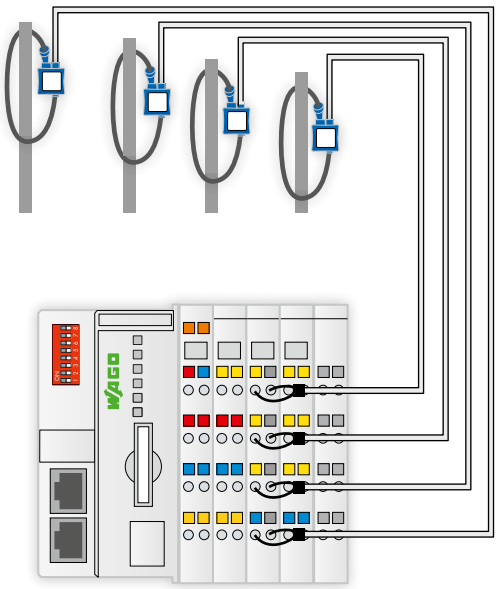
Power, energy and N-conductor measurement of a machine in a 480/690 VAC mains network via 750-495 3-Phase Power Measurement Module



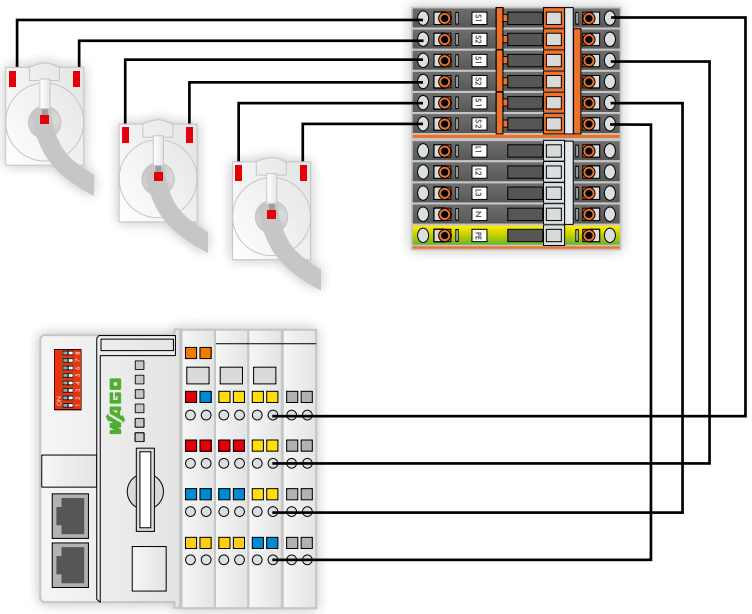
790-495

Applications

Connecting current transformers to 3-Phase Power Measurement Modules



2007-8873 Terminal Block Assembly for Current Transformers

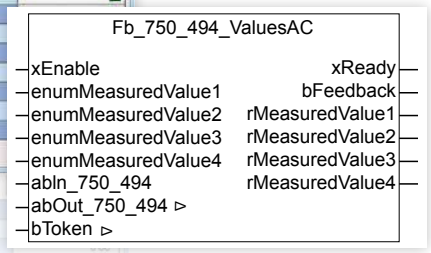


Connecting Rogowski coils directly to the 750-495/000-002 3-Phase Power Measurement Module

Power and Energy Measurement
Comprehensive Network Analysis via WAGO-I/O-*CHECK*

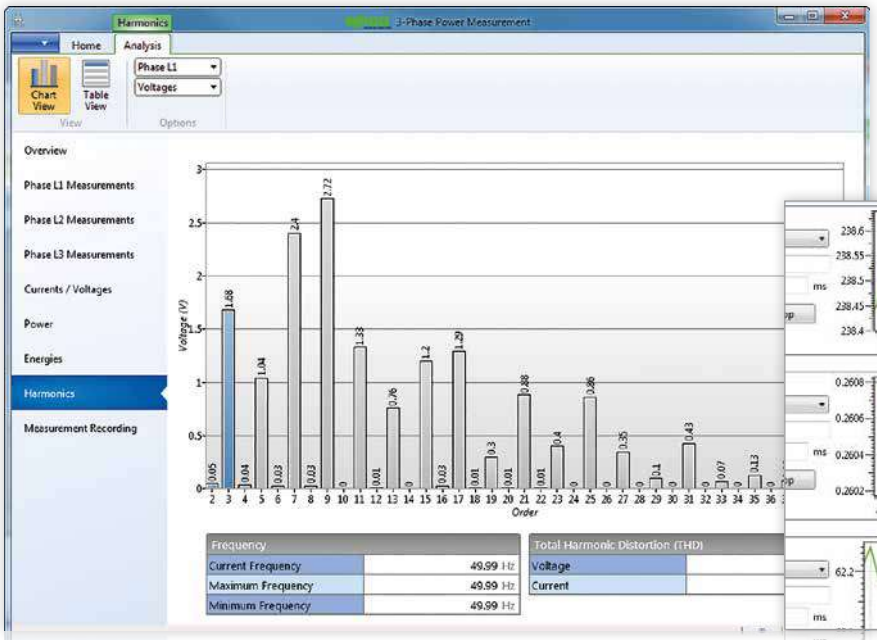
Overview: Three Phases' Measured Values



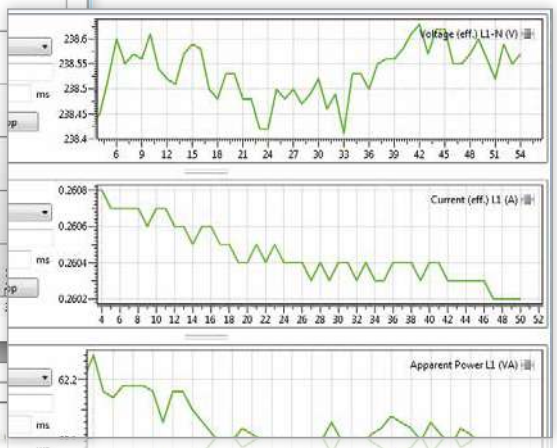


Measured value configuration is also possible via function block.

Harmonic Diagram

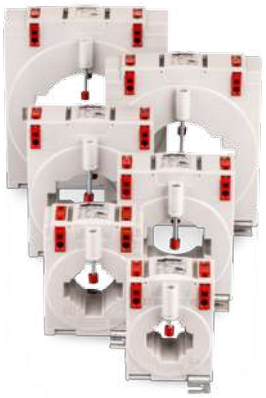


Measured Value Chart



9

Plug-In Current Transformers with CAGE CLAMP® Connection
855 Series



Primary Rated Current	Secondary Rated Current	Rated Power	Accuracy Class	Hole for Conductor/Cable	Item No.
50	1	1,25	3	Current bar 1: 30 x 10 mm Current bar 2: 25 x 12 mm Current bar 3: 20 x 20 mm Round cable: 26 mm	**855-301/050-103**
50	5	1,25	3		**855-305/050-103**
60	1	1,25	1		**855-301/060-101**
60	5	1,25	1		**855-305/060-101**
75	1	2,5	1		**855-301/075-201**
75	5	2,5	1		**855-305/075-201**
100	1	2,5	1		**855-301/100-201**
100	5	2,5	1		**855-305/100-201**
150	1	5	1		**855-301/150-501**
150	5	5	1		**855-305/150-501**
200	1	5	1		**855-301/200-501**
200	5	5	1		**855-305/200-501**
250	1	5	1		**855-301/250-501**
250	5	5	1		**855-305/250-501**
400	1	10	1		**855-301/400-1001**
400	5	10	1		**855-305/400-1001**
600	1	10	1		**855-301/600-1001**
600	5	10	1		**855-305/600-1001**
250	5	5	1	Current bar 1: 40 x 10 mm Current bar 2: 30 x 15 mm Round cable: 32 mm	**855-405/250-501**
400	1	5	1		**855-401/400-501**
400	5	5	1		**855-405/400-501**
600	1	5	1		**855-401/600-501**
400	5	10	1	Current bar 1: 50 x 12 mm Current bar 2: 40 x 30 mm Round cable: 44 mm	**855-505/400-1001**
600	5	10	1		**855-505/600-1001**
800	5	10	1		**855-505/800-1001**
1000	1	10	1		**855-501/1000-1001**
1000	5	10	1		**855-505/1000-1001**
1500	5	5	1	Current bar 1: 63 x 10 mm Current bar 2: 50 x 30 mm Round cable: 44 mm	**855-605/1500-501**
1500	1	5	1		**855-601/1500-501**
2000	5	10	1	Current bar 1: 80 x 10 mm Current bar 2: 60 x 30 mm Round cable: 55 mm	**855-805/2000-1001**
2000	1	10	1		**855-801/2000-1001**
2500	5	10	1	Current bar 1: 100 x 10 mm Current bar 2: 80 x 30 mm Round cable: 70 mm	**855-1005/2500-1001**
2500	1	10	1		**855-1001/2500-1001**

Accessories

	Description	Item No.
	Carrier Rail Adapter for Plug-In Current Transformers (855-3xx and 855-4xx)	**855-9900**
	Quick-Mount Kit (2 pieces including cable tie)	**855-9910**



Snapping the carrier rail adapter onto the plug-in current transformer.

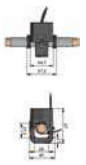


Securing the round cable via locking screw.



Inserting a conductor via operating tool.

Split-Core Current Transformers with a Connection Cable
855 Series

	Primary Rated Current	Secondary Rated Current	Rated Power	Accuracy Class	Cable Length	Hole for Conductor/Cable	Item No.
	60 A	1 A	0.2 VA	3	3 m	18 mm Ø	855-3001/060-003
	100 A	1 A	0.2 VA	3	3 m		855-3001/100-003
	200 A	1 A	0.2 VA	1	3 m		855-3001/200-001
	250 A	1 A	0.2 VA	1	3 m		855-3001/250-001
	100 A	1 A	0.2 VA	1	3 m	18 mm Ø	855-4001/100-001
	150 A	1 A	0.2 VA	1	3 m		855-4001/150-001
	150 A	5 A	1 VA	1	0.5 m		855-4005/150-101
	200 A	1 A	0.2 VA	0.5	3 m		855-4001/200-001
	200 A	1 A	0.2 VA	1	3 m	28 mm Ø	855-4101/200-001
	250 A	1 A	0.2 VA	1	3 m		855-4101/250-001
	250 A	5 A	1 VA	1	0.5 m		855-4105/250-101
	400 A	1 A	0.2 VA	1	3 m		855-4101/400-001
	400 A	5 A	1 VA	1	0.5 m		855-4105/400-101
	250 A	1 A	0.5 VA	1	5 m	42 mm Ø	855-5001/250-001
	400 A	1 A	0.5 VA	0.5	5 m		855-5001/400-000
	400 A	5 A	0.5 VA	1	3 m		855-5005/400-001
	600 A	1 A	0.5 VA	0.5	5 m		855-5001/600-000
	600 A	5 A	0.5 VA	0.5	3 m		855-5005/600-000
	1000 A	1 A	0.5 VA	0.5	5 m		855-5001/1000-000
	1000 A	5 A	0.5 VA	0.5	3 m		855-5005/1000-000
	1000 A	1 A	0.5 VA	0.5	5 m	2 x 42 mm Ø	855-5101/1000-000
	1000 A	5 A	0.5 VA	0.5	3 m		855-5105/1000-000

WAGO's compact 855 Series Split-Core Current Transformers are ideal for retrofitting existing systems. They are perfect for applications in which the current path must not be disrupted. The transformer's accuracy permits extremely precise current measurements.

The split-core current transformers are capable of supplying the specified rated power at the end of the secondary cable. All transformers are supplied with color-coded cables. Two UV-resistant cable ties are also included for secure and easy mounting.



9

Plug-In Current Transformers with a *picoMAX*® Pluggable Connector
855 Series

	Primary Rated Current	Secondary Rated Current	Rated Power	Accuracy Class	Conductor Hole	Item No.
	32 A*	0.32 A	0.01 VA (0.1 Ω)	0.5**	5.0 mm ⌀	**855-1700/032-000**
	35 A	1 A	0.2 VA	1	7.5 mm ⌀	**855-2701/035-001**
	64 A	1 A	0.2 VA	1	7.5 mm ⌀	**855-2701/064-001**

Accessories

	Description		Item No.
	Carrier Rail Adapter	for 855-2701/xxx	**855-9927**
	Operating Tool	Type 2, (3.5 x 0.5) mm blade	**210-720**

*Measurement range: 0.8 ... 32 A in combination with 750-493/494/495 3-Phase Power Measurement Modules
**Testing adheres to EN 61869-2 with a conversion ratio of 16 A/0.16 A (accuracy class: 0.5) and an extended primary current of 200 %.


Snapping a transformer onto DIN-rail.


Staggered arrangement for 17.5 mm spacing


Inserting a conductor via push-in termination.


Removing the conductor via push-button.


Low power output


1A output

Intelligent Current Sensors with Bus Connection
789 Series

WAGO's intelligent current sensors monitor solar plants or inverters for DC measurements within a large current measurement range.

	Measurement Range	Transmission Error	Power Supply	Hole	Interface	Protocol	Addressing	Max. Bus Length	Item No.
	0 ... 80 ADC	≤ 0.5 % of upper-range value	12 ... 34 V (via RJ-45)	15 mm (for power cable)	RS-485	MODBUS over serial line	1 ... 32	≤ 1,200 m	**789-620**
	0 ... 140 ADC								**789-621**
	0 ... 50 A_{rms} (AC)								**789-622**

Rogowski Coils
855 Series

	Primary Rated Current	Output Signal	Description	Item No.
	500 A	10.05 mV	RT 500, 1.5 m cable	**855-9100/500-000**
			RT 500, 3 m cable	**855-9300/500-000**
	2000 A	40.2 mV	RT 2000, 1.5 m cable	**855-9100/2000-000**
			RT 2000, 3 m cable	**855-9300/2000-000**





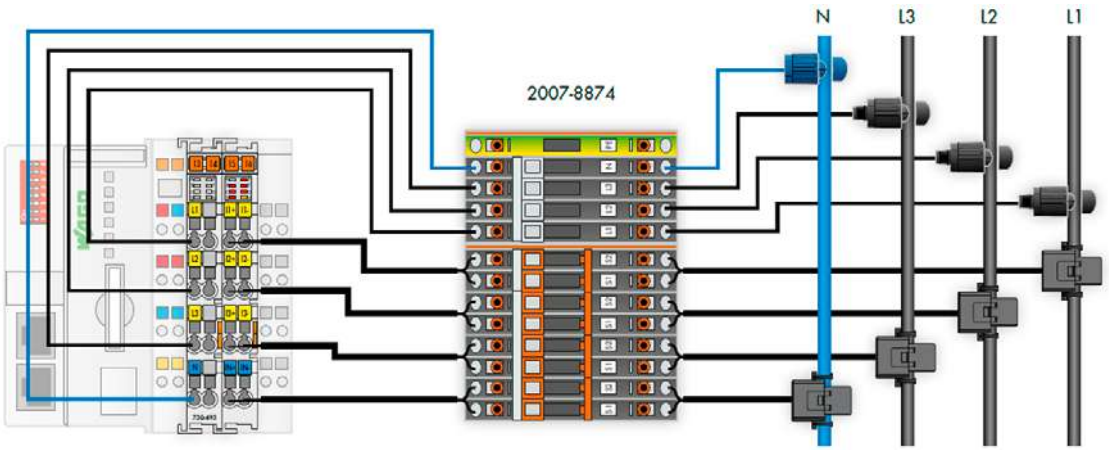
Function: The Rogowski coil is a closed-air coil with a non-magnetic split core. The coil is placed around a cable or current bar. The magnetic field produced by the AC current flowing through the conductor induces an output voltage in the coil. This measurement procedure galvanically isolates the primary circuit (power) and secondary circuit (measurement).

Accessories: Signal Conditioners for Rogowski Coils

	Input Signal	Output Signal	Overcurrent	Sensitivity	Item No.
	3 x RT 500 (500 A)	3 x 100 mAAC	750 A	10.05 mV; 50 Hz, sinusoidal	**789-652**
	3 x RT 2000 (2,000 A)		3000 A	40.2 mV; 50 Hz, sinusoidal	**789-654**

Voltage Taps

	Color	Hole for Measurement Conductor	Fuse	Item No.
	Black	3 ... 5 mm Ø	2 A, 450 V, F, 70 kA, 5 x 25 mm	**855-8001**
	Blue		–	**855-8002**
	Black	5 ... 7 mm Ø	2 A, 450 V, F, 70 kA, 5 x 25 mm	**855-8003**
	Blue		–	**855-8004**



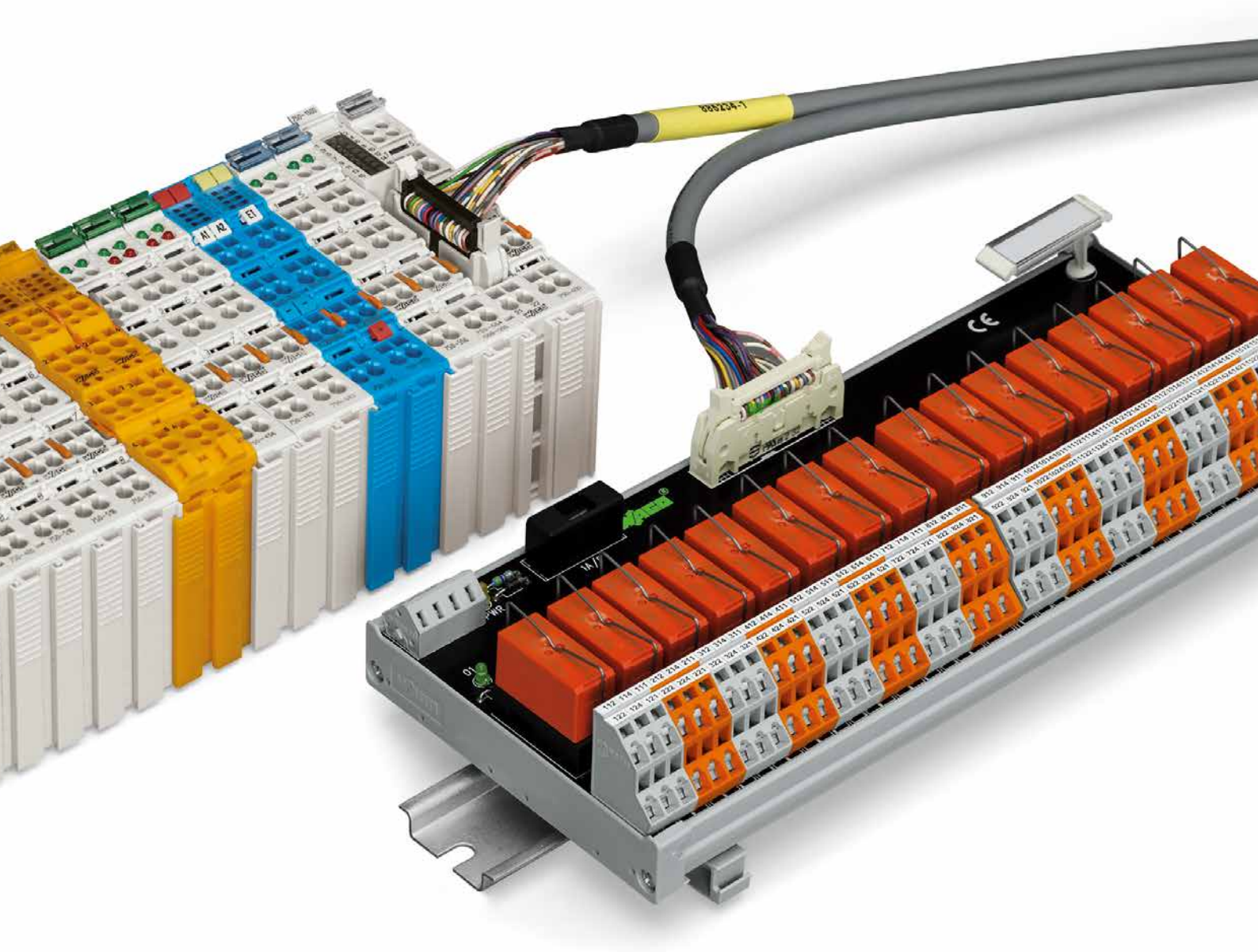
WAGO System Wiring and Interface Modules
– Overview and Application Examples –

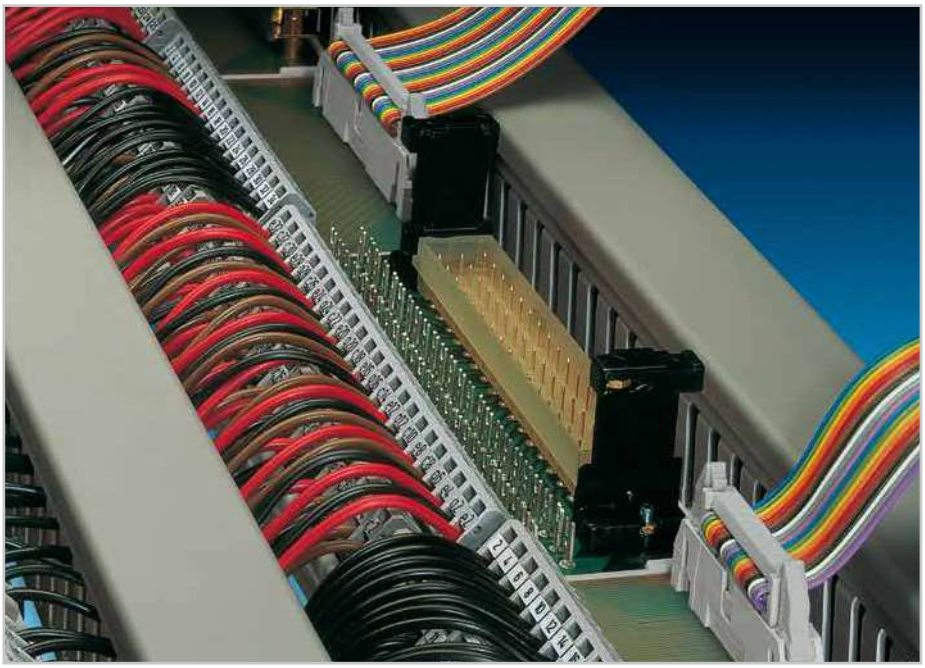
16-Channel Module with Interface Module

The new 750-14xx and 750-15xx Series Bus Modules with a pluggable connector per DIN 41 651 offer 16 digital channels in a module less than 1/2 inch (12 mm) wide. Offering quick connections and a space-efficient design, the DIN-rail-mount interface modules simplify installation in confined areas and conveniently relocate the termination point. When combined with WAGO interface modules (e.g., item no. 289-614, 289-611), a switch cabinet can be pre-wired before installation to minimize wiring time and errors. This is beneficial as wiring can be performed independently of construction.

Pre-wired electronics can be installed right before start, saving valuable time during the final stages of project completion. The modules are also ideal for connecting series machines or relay modules tasked with the higher loads common to buildings and industrial applications. The interface module also combines the advantages of relays (e.g., manual operation or rapid replacement via socket-mounted versions) with the benefits of a modern I/O system. Another ideal application would be the integration of pneumatic controllers into a fieldbus network.

Most pneumatic modules have an appropriate connector and can be controlled by the WAGO-I/O-SYSTEM. Five variants are available: two 16-channel input or output modules (one high-side and one low-side switching variant), as well as a version combining 8 inputs and 8 outputs.





288/289 Series DIN-Rail-Mount Relay Modules

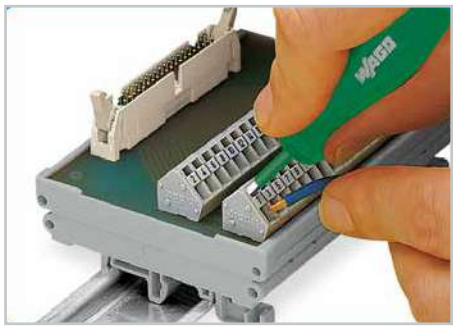


WAGO Interface Cable,
706-7753/302-100

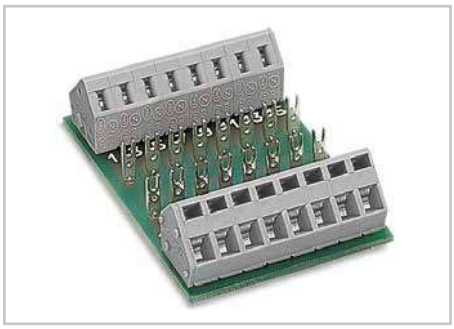


WAGO Interface Cable,
706-7753/300-100

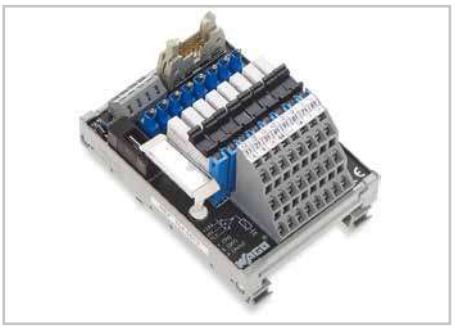
Examples:



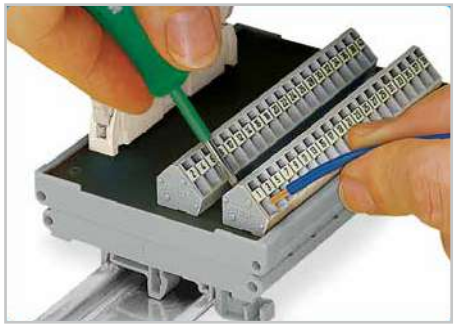
"Front-entry" conductor termination



Solder pins for self-assembly



Relay module, 8 channels



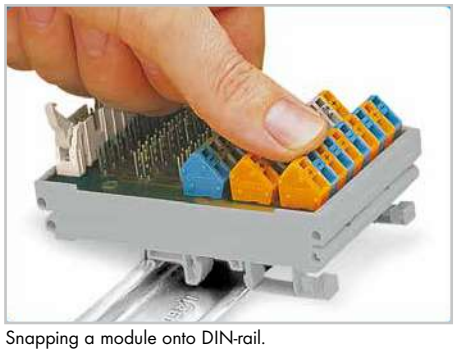
"Side-entry" conductor termination



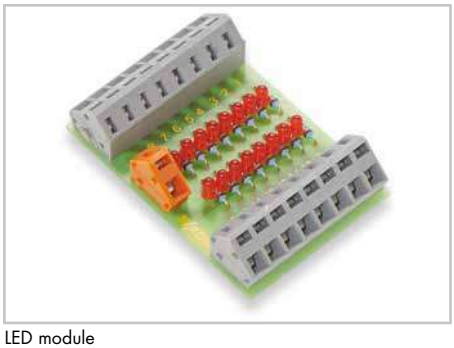
Diode module



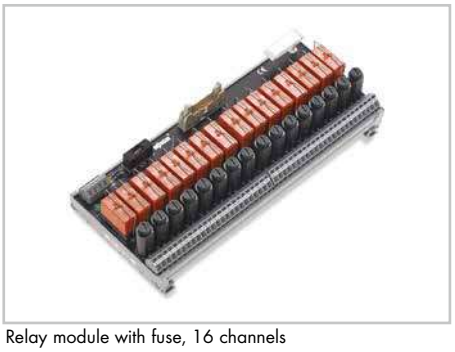
Relay module, 16 channels



Snapping a module onto DIN-rail.



LED module



Relay module with fuse, 16 channels

10

WAGO System Wiring
– Overview and Application Examples –

SIEMENS S7-300			WAGO Interface Cables		WAGO Interface Modules	
			Item No.	Qty.	Type	Qty.
CPU	6ES7 313-5BE01-0AB0	16 DI/16 DO	706-2300/301-XXX	1	T16ES/T16S	1/1
	6ES7 313-5BF03-0AB0	16 DI/16 DO	706-2300/301-XXX	1	T16ES/T16S	1/1
	6ES7 313-6BE01-0AB0	16 DI/16 DO	706-2300/301-XXX	1	T16ES/T16S	1/1
	6ES7 313-6BF03-0AB0	16 DI/16 DO	706-2300/301-XXX	1	T16ES/T16S	1/1
	6ES7 313-6CE01-0AB0	16 DI/16 DO	706-2300/301-XXX	1	T16ES/T16S	1/1
	6ES7 313-6CF03-0AB0	16 DI/16 DO	706-2300/301-XXX	1	T16ES/T16S	1/1
	6ES7 314-6BF01-0AB0	16 DI/16 DO	706-2300/301-XXX	1	T16ES/T16S	1/1
	6ES7 314-6BG03-0AB0	16 DI/16 DO	706-2300/301-XXX	1	T16ES/T16S	1/1
	6ES7 314-6CF01-0AB0	16 DI/16 DO	706-2300/301-XXX	1	T16ES/T16S	1/1
	6ES7 314-6CG03-0AB0	16 DI/16 DO	706-2300/301-XXX	1	T16ES/T16S	1/1
DI	6ES7 321-1BH02-0AA0	16 DI	706-2300/300-XXX	1	T16ES	1
	6ES7 321-1BH10-0AA0	16 DI	706-2300/300-XXX	1	T16ES	1
	6ES7 321-1BH80-0AA0	16 DI	706-2300/300-XXX	1	T16ES	1
	6ES7 321-1BL00-0AA0	32 DI	706-2300/301-XXX	1	T16ES	2
	6ES7 321-1BL80-0AA0	32 DI	706-2300/301-XXX	1	T16ES	2
	6ES7 321-1BP00-0AA0	64 DI	706-2300/100-XXX	2	T16ES	4
	6ES7 321-7BH01-0AA0	16 DI	706-2300/101-XXX	1	T16ES	1
	6ES7 321-7BH80-0AA0	16 DI	706-2300/101-XXX	1	T16ES	1
DO	6ES7 322-1BH01-0AA0	16 DO	706-2300/300-XXX	1	T16ES /T16S	1
	6ES7 322-1BH10-0AA0	16 DO	706-2300/300-XXX	1	T16ES /T16S	1
	6ES7 322-1BH80-0AA0	16 DO	706-2300/300-XXX	1	T16ES /T16S	1
	6ES7 322-1BL00-0AA0	32 DO	706-2300/301-XXX	1	T16ES /T16S	2
	6ES7 322-1BP00-0AA0	64 DO	706-2300/200-XXX	2	T16ES /T16S	4
	6ES7 322-1EH01-0AA0	16 D0	706-2300/300-XXX	1	T16ES /T16S	1
	6ES7 322-8BF00-0AB0	8 DO	706-2300/201-XXX	1	T8ES /T8S	1
AI	6ES7 331-7HF01-0AB0	8 AI	706-2300/400-XXX	1	A8ES	1
	6ES7 331-7KF02-0AB0	8 AI	706-2300/400-XXX	1	A8ES	1
	6ES7 331-7NF00-0AB0	8 AI	706-2300/404-XXX	1	A8ES	1
	6ES7 331-7NF10-0AB0	8 AI	706-2300/406-XXX	1	A8ES	1
	6ES7 331-7SF00-0AB0	8 AI	706-2300/400-XXX	1	A8ES	1
	6ES7 331-7TF00-0AB0	8 AI	706-2300/400-XXX	1	A8ES	1
AO	6ES7 332-5HB01-0AB0	2 AO	706-2300/400-XXX	1	A4ES	1
	6ES7 332-5HB81-0AB0	2 AO	706-2300/400-XXX	1	A4ES	1
	6ES7 332-5HD01-0AB0	4 AO	706-2300/404-XXX	1	A4ES	1
	6ES7 332-5HF00-0AB0	8 AO	706-2300/406-XXX	1	A8ES	1
	6ES7 332-7ND02-0AB0	4 AO	706-2300/400-XXX	1	A4ES	1
	6ES7 332-8TF00-0AB0	8 AO	706-2300/400-XXX	1	A8ES	1

WAGO-I/O-SYSTEM 753			WAGO Interface Cables		WAGO Interface Modules	
	I/O Modules		Item No.	Qty.	Type	Qty.
DI	753-430 (x1)	8 DI	706-7753/300-XXX	1	T8ES	1
	753-430 (x2)	16 DI	706-7753/301-XXX	1	T16ES	1
	753-431 (x1)	8 DI	706-7753/300-XXX	1	T8ES	1
	753-431 (x2)	16 DI	706-7753/301-XXX	1	T16ES	1
DO	753-530 (x1)	8 DO	706-7753/300-XXX	1	T8ES/T8S	1
	753-530 (x2)	16 DO	706-7753/301-XXX	1	T16ES/T16S	1

For an overview of interface modules, see page 234.

WAGO-I/O-SYSTEM 750			WAGO Interface Cables		WAGO Interface Modules	
	I/O Modules		Item No.	Qty.	Type	Qty.
DI	750-1400	16 DI	706-3057/300-XXX	1	T16ES	1
DO	750-1500	16 DO	706-3057/300-XXX	1	T16ES	1
DI/DO	750-1502	8 DI/8 DO	706-7753/302-XXX	1	T8ES/T8S	1/1
	750-1502	8 DI/8 DO	706-3057/300-XXX	1	T16ES	1

For an overview of interface modules, see page 234.

WAGO Interface Modules

	Type	Short Description	Dimensions (mm) W x H x D	Item No.
DI/DO	T8ES	10-pole, without supply	35 x 48 x 85	289-611
		10-pole, with LEDs, 3 conductors	56 x 63 x 85	704-2003
	T8S	10-pole, with LEDs, 5 A relay	70 x 65 x 105	704-5003
		10-pole, with LEDs, 5 A relay, manual operation	75 x 65 x 105	704-5013
	T16ES	20-pole, without supply	47 x 62 x 85	289-614
		20-pole, with LEDs, 1 conductor	55 x 50 x 85	704-2004
		20-pole, with LEDs, 2 conductors	85 x 50 x 85	704-2024
		20-pole, with LEDs, 2 conductors, disconnection	99 x 50 x 85	704-2044
		20-pole, with LEDs, 3 conductors	85 x 63 x 85	704-2054
	T16S	20-pole, with LEDs, 5 A relay	180 x 50 x 105	704-5004
		20-pole, with LEDs, relay socket without relay	180 x 50 x 105	704-5014
		20-pole, with LEDs, 5 A relay	111 x 65 x 105	704-5024
		20-pole, with LEDs, 5 A relay, fuse	247 x 55 x 105	704-5034
		20-pole, with LEDs, 5 A relay, manual operation	121 x 65 x 105	704-5044
		20-pole, with LEDs, 5 A relay, disconnection, fuse	240 x 55 x 105	704-5054
		20-pole, with LEDs, 5 A (2 u) relay	247 x 50 x 105	704-5064
		20-pole, with LEDs, 5 A (1 a) relay, disconnection, fuse	240 x 55 x 105	704-5074
AI/AO	A4ES	15-pole D-sub, 2/4 conductors, disconnection	66 x 50 x 105	704-8012
	A8ES	25-pole D-sub, 2/4 conductors, disconnection	92 x 50 x 105	704-8013

WAGO Interface Cables

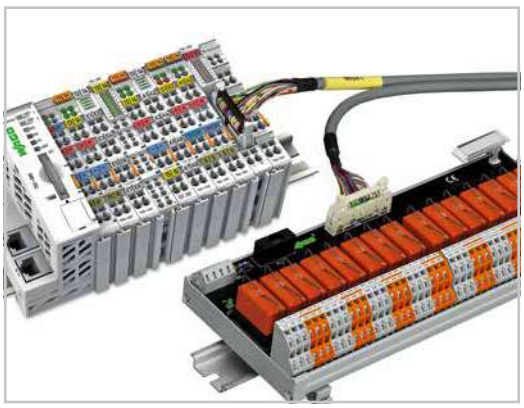
	Type	Item No.	
DI/DO	WAGO-753 T8ES	706-7753/300-XXX	See www.wago.com
	WAGO-753 T16ES	706-7753/301-XXX	See www.wago.com
	WAGO-750 HE T8E8S	706-7753/302-XXX	
	TSX T16ES	706-3057/300-XXX	
	S7-300 T16E	706-2300/101-XXX	
	S7-300 2 x T16E	706-2300/100-XXX	
	S7-300 T8S	706-2300/201-XXX	
	S7-300 2 x T16S	706-2300/200-XXX	
	S7-300 T16ES	706-2300/300-XXX	
	S7-300 2 x T16ES	706-2300/301-XXX	
AI/AO	S7-300 A8E	706-2300/400-XXX	
	S7-300 A8EI1	706-2300/404-XXX	
	S7-300 A8EI2	706-2300/406-XXX	
	S7-300 A4SI	706-2300/500-XXX	
	S7-300 A8SI	706-2300/502-XXX	

Cable Length Overview

Item No.	-XXX	Length	Example
706-2300/201-XXX	-100	1 m	706-2300/201-100
	-200	2 m	706-2300/201-200
	-300	3 m	706-2300/201-300

System cables upon request:

- SCHNEIDER M340
- SCHNEIDER QUANTUM
- SCHNEIDER TSX 37 (Micro)
- SCHNEIDER TSX 57 (Premium)
- GEFANUC 90-30 / ALSPA 80-35
- ROCKWELL COMPACT LOGIX (1769)
- ROCKWELL CONTROL LOGIX (1756)



DIN-Rail-Mount Potential Multiplication Modules, Interface Modules

288/289 Series

CAGE CLAMP®

DIN-rail-mount potential multiplication modules

Interface modules Terminal strips with CAGE CLAMP® (236 Series) Mounting carrier for DIN-35 rail

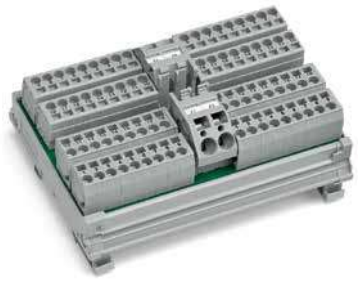
0.08 … 2.5 mm² 28 … 12 AWG

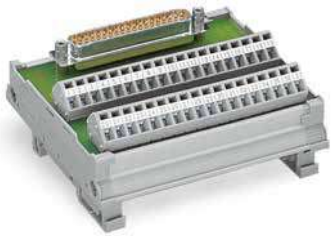
5 … 6 mm / 0.22 in.

Interface modules Terminal strips with CAGE CLAMP® (736/737 Series) Mounting carrier for DIN-35 rail

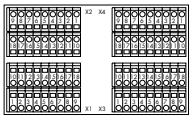
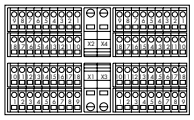
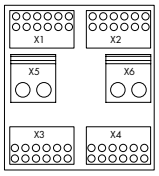
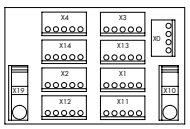
0.08 … 2.5 mm² 28 … 12 AWG

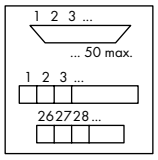
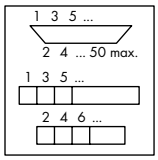
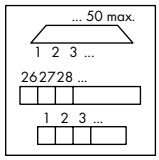
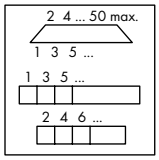
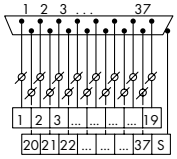
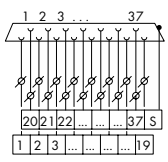
5 … 6 mm / 0.22 in.

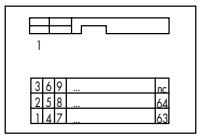
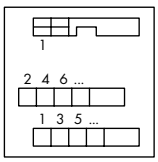






	Item No.	Pack. Unit
	**Potential multiplication module,** 4 potentials, each with 18 connection points	
	288-825	1
	250 VAC/DC / 12 A	
	**Potential multiplication module,** 4 potentials, each with one supply and 18 connection points	
	288-837	1
	250 VAC/DC / 12 A	
	**Potential multiplication module,** 4 potential groups, each with 6 connection points for positive and negative potentials	
	288-867	1
	24 VDC / 10 A	
	**Potential multiplication module,** 4 potentials, each with 24 VDC with 5 connection points of 24 V and 5 connection points of 0 V	
	288-870/000-030	1
	24 VDC / 10 A	
	**Potential multiplication module,** 8 potentials, each with 24 VDC with 5 connection points of 24 V and 5 connection points of 0 V	
	288-870/000-040	1
	24 VDC / 10 A	

	Item No.	Pack. Unit
	**Interface modules with D-subminiature male connector,** for mating connectors with solder connection	
	9-pole **289-545**	1
	15-pole **289-546**	1
	25-pole **289-547**	1
	37-pole **289-548**	1
	50-pole **289-549**	1
	for mating connectors with IDC	
	9-pole **289-540**	1
	15-pole **289-541**	1
	25-pole **289-542**	1
	37-pole **289-543**	1
	50-pole **289-544**	1
	**Interface modules with D-subminiature female connector,** for mating connectors with solder connection	
	9-pole **289-555**	1
	15-pole **289-556**	1
	25-pole **289-557**	1
	37-pole **289-558**	1
	50-pole **289-559**	1
	for mating connectors with IDC	
	9-pole **289-550**	1
	15-pole **289-551**	1
	25-pole **289-552**	1
	37-pole **289-553**	1
	50-pole **289-554**	1
	**Interface modules with D-subminiature male connector**	
	9-pole **289-720**	1
	15-pole **289-721**	1
	25-pole **289-722**	1
	37-pole **289-723**	1
	**Interface modules with D-subminiature female connector**	
	289-725 9-pole	1
	289-726 15-pole	1
	289-727 25-pole	1
	289-728 37-pole	1

	Item No.	Pack. Unit
	**Interface modules with male connector per DIN 41651 and multilevel PCB terminal strip**	
	10-pole **289-611**	1
	14-pole **289-612**	1
	16-pole **289-613**	1
	20-pole **289-614**	1
	26-pole **289-615**	1
	34-pole **289-616**	1
	40-pole **289-617**	1
	50-pole **289-618**	1
	64-pole **289-619**	1
	**Interface modules with male connector per DIN 41651 and single-deck PCB terminal strips**	
	10-pole **289-501**	1
	14-pole **289-502**	1
	16-pole **289-503**	1
	20-pole **289-504**	1
	26-pole **289-505**	1
	34-pole **289-506**	1
	40-pole **289-507**	1
	50-pole **289-508**	1
	64-pole **289-509**	1
	Also available for connectors complying with: DIN 41612 (types E, F) and DIN 41651	
	**RJ-45 interface modules Cat. 5**	
	RJ to 4-pole + S **289-174**	
	RJ to 4-pole + S + P **289-178**	
	RJ to 8-pole + S **289-175**	
	RJ to 8-pole + S + P **289-179**	
	RJ + S to RJ + S **289-172**	
	RJ + S + P to RJ + S + P **289-176**	
	RJ + S + P x RJ + S + P cross-over **289-177**	
	**RJ-45 interface module Cat. 6**	
	RJ to 8-pole + S **289-195**	

Please find the entire product range in our Full Line Catalog. For additional information, visit www.wago.com.

S: Shield; P: Power jumper contacts

DIN-Rail-Mount PCB Carriers

288 Series

Mounting carrier, size 1, 85 mm wide, for DIN-rail mounting of 71.2 mm wide PCBs



	Item No.	Pack. Unit
Lateral cover, size 1,		
low-profile, 6.35 mm thick	**288-601**	1
Mounting foot for DIN-35 rail	**288-602**	1
Carrier base, size 2, 1 m long	**288-600**	1
Phillips screw, 2.9 x 13	**210-533**	25
2 pcs per lateral cover; for a module length of 39 mm or higher; lateral covers must be riveted for smaller modules.		
Rivet length depends on module length; rivets are not offered by WAGO.		

Mounting carrier, size 2, 106 mm wide, for DIN-rail mounting of 100 mm wide PCBs



	Item No.	Pack. Unit
Lateral cover, size 2,		
low-profile, 8.75 mm thick	**288-621**	1
Mounting foot for DIN-35 rail	**288-622**	1
Carrier base, size 2, 1 m long	**288-620**	1
Lateral cover, size 2,		
high-profile, 8.75 mm thick	**288-626**	1
Cover, size 2, 1 mm long	**288-627**	1
Phillips screw, 2.9 x 13	**210-533**	25
2 pcs per lateral cover; for a module length of 39 mm or higher; lateral covers must be riveted for smaller modules.		
Rivet length depends on module length; rivets are not offered by WAGO.		

Accessories, 288 Series

PCB length: L1
Base length: L2 = L1 − 11 mm
Mounting carrier length: L3 = L1 + 2 mm

Lateral cover, type 1: 6.35 mm thick

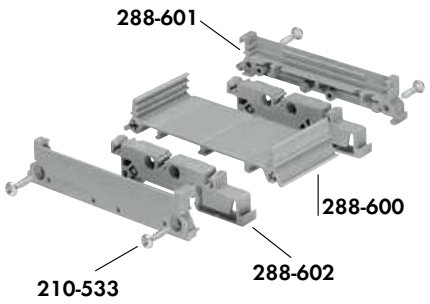
Free space between profile and PCB: 5 mm (when using upper groove)

PCB length: L1
Base length: L2 = L1 − 15.8 mm
Mounting carrier length: L3 = L1 + 2 mm
Cover length: L4 = L1

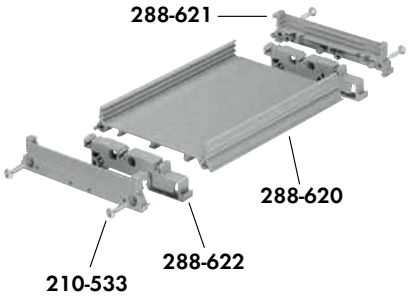
Lateral cover, size 2: 8.75 mm thick

Free space between profile and PCB: 5 mm

Mounting Carrier, Size 1, Low-Profile



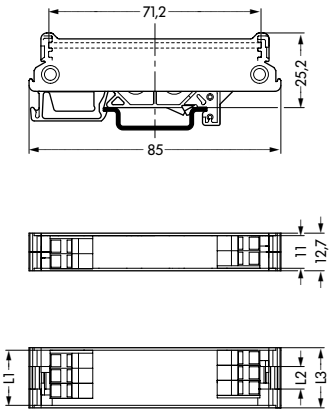
Mounting Carrier, Size 2, Low-Profile



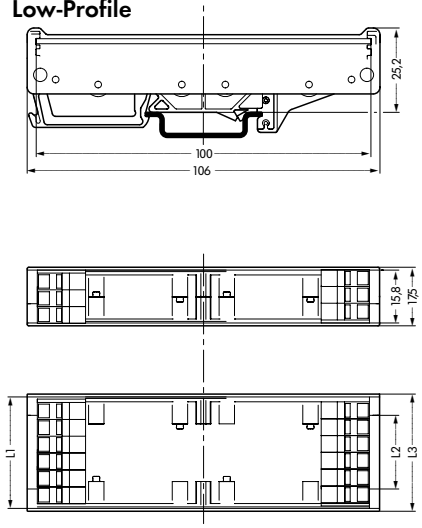
Mounting Carrier, Size 2, High-Profile, with Cover



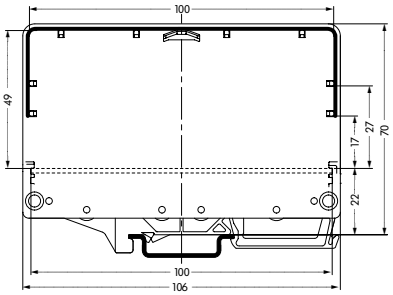
Mounting Carrier, Size 1, Low-Profile



Mounting Carrier, Size 2, Low-Profile



Mounting Carrier, Size 2, High-Profile



For technical explanations and abbreviations, see technical section.

10

Empty Component Plug Housings for Building Custom Circuits

280/286/2002 Series

Plug width: 5.2 mm/0.205 in.
10.4 mm/0.409 in.



Type 1 2

Plug width: 5 mm/0.197 in.
10 mm/0.394 in.

250 V/4 kV/3
6 A (max.)



Type 6 5 4 3

Plug width: 10 mm/0.394 in.
15 mm/0.591 in.
20 mm/0.787 in.
25 mm/0.984 in.

250 V/4 kV/3
6 A (max.)



Type 10 9 8 7

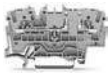
Type	Item No.	Pack. Unit
Empty component plugs for carrier terminal blocks, 2002 Series		
Type 1	**2002-800**	100
2-pole, 5.2 mm/0.205 in. wide		
Type 1	**2002-810**	50
2-pole, 10.4 mm/0.409 in. wide		
Type 1	**2002-820**	50
4-pole, 10.4 mm/0.409 in. wide		
Empty component plug for through terminal blocks, 2001, 2002, 2004 and 2006 Series		
Type 2	**2002-880**	50
2-pole, 10.4 mm/0.409 in. wide		

Type	Item No.	Pack. Unit
Empty component plugs for carrier terminal blocks		
Type 3	**280-801**	100
2-pole, 5 mm/0.197 in. wide, Plug inside dimensions: W/H/D (3.2/15/15) mm		
Type 4	**280-802**	50
2-pole, 10 mm/0.394 in. wide, Plug inside dimensions: W/H/D (8.2/15/15) mm		
Type 5	**280-804**	50
4-pole, 10 mm/0.394 in. wide, Plug inside dimensions: W/H/D (8.2/15/15) mm		
Empty component plug for through terminal blocks		
Type 6	**280-803**	50
2-pole, 10 mm/0.394 in. wide, Plug inside dimensions: W/H/D (8.2/15/15) mm		

Type	Item No.	Pack. Unit
Empty component plug housings for terminal blocks for pluggable modules		
Type 7	**286-110**	1
4-pole, 10 mm/0.394 in. wide		
Type 8	**286-111**	1
6-pole, 15 mm/0.591 in. wide		
Type 9	**286-112**	1
8-pole, 20 mm/0.787 in. wide		
Type 10	**286-113**	1
10-pole, 25 mm/0.984 in. wide		

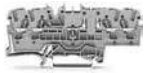
Accessories, 280, 286 and 2002 Series

2-cond. carrier terminal block, 5.2 mm wide



0.25 ... 2.5 (4) mm²/22 ... 12 AWG
10 ... 12 mm / 0.43 in.
gray **2002-1661** 50

4-cond. carrier terminal block, 5.2 mm wide



0.25 ... 2.5 (4) mm²/22 ... 12 AWG
10 ... 12 mm / 0.43 in.
gray **2002-1861** 50

2-cond. through terminal block, 5.2 mm wide



0.25 ... 2.5 (4) mm²/22 ... 12 AWG
10 ... 12 mm / 0.43 in.
gray **2002-1201** 100

3-cond. through terminal block, 5.2 mm wide



0.25 ... 2.5 (4) mm²/22 ... 12 AWG
10 ... 12 mm / 0.43 in.
gray **2002-1301** 100

4-cond. through terminal block, 5.2 mm wide



0.25 ... 2.5 (4) mm²/22 ... 12 AWG
10 ... 12 mm / 0.43 in.
gray **2002-1401** 100

2-cond. through terminal block, 6.2 mm wide



0.5 ... 4 (6) mm²/20 ... 10 AWG
11 ... 13 mm / 0.47 in.
gray **2004-1201** 50

2-cond. through terminal block, 7.5 mm wide



0.5 ... 6 (10) mm²/20 ... 8 AWG
13 ... 15 mm / 0.55 in.
gray **2006-1201** 50

Multi-purpose operating tool,



for component plugs
2002-116 5

2-cond. carrier terminal block, 5 mm wide



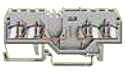
0.08 ... 2.5 mm²/28 ... 14 AWG
8 ... 9 mm / 0.33 in.
gray **280-916** 100

3-cond. carrier terminal block, 5 mm wide



0.08 ... 2.5 mm²/28 ... 14 AWG
8 ... 9 mm / 0.33 in.
gray **280-610** 100

4-cond. carrier terminal block, 5 mm wide



0.08 ... 2.5 mm²/28 ... 14 AWG
8 ... 9 mm / 0.33 in.
gray **280-686** 100

2-cond. through terminal block, 5 mm wide



0.08 ... 2.5 mm²/28 ... 14 AWG
8 ... 9 mm / 0.33 in.
gray **280-901** 100

3-cond. through terminal block, 5 mm wide



0.08 ... 2.5 mm²/28 ... 14 AWG
8 ... 9 mm / 0.33 in.
gray **280-681** 100

4-cond. through terminal block, 5 mm wide



0.08 ... 2.5 mm²/28 ... 14 AWG
8 ... 9 mm / 0.33 in.
gray **280-833** 100

2-cond. through terminal block, 5 mm wide



side-entry wiring,
0.08 ... 2.5 mm²/28 ... 14 AWG
8 ... 9 mm / 0.33 in.
gray **280-101** 100

Terminal blocks for pluggable modules,



with 2-cond. blocks,
polarized,
with orange separator
0.08 ... 2.5 mm²/28 ... 14 AWG
8 ... 9 mm/0.33 in.

4-pole, 12 mm/0.472 in. wide	**280-618**	1
6-pole, 17 mm/0.669 in. wide	**280-619**	1
8-pole, 22 mm/0.866 in. wide	**280-638**	1
10-pole, 27 mm/1.063 in. wide	**280-639**	1

Terminal blocks for pluggable modules,



with 4-cond. blocks,
polarized,
with orange separator
0.08 ... 2.5 mm²/28 ... 14 AWG
8 ... 9 mm/0.33 in.

4-pole, 12 mm/0.472 in. wide	**280-608**	1
6-pole, 17 mm/0.669 in. wide	**280-609**	1
8-pole, 22 mm/0.866 in. wide	**280-628**	1
10-pole, 27 mm/1.063 in. wide	**280-629**	1

1-cond./1-cond. terminal blocks for pluggable modules,



with orange separator
0.08 ... 4 mm²/28 ... 12 AWG
8 ... 9 mm/0.33 in.

4-pole, 11.1 mm/0.437 in. wide	**769-192/769-319**	10
6-pole, 16.1 mm/0.634 in. wide	**769-193/769-319**	5
8-pole, 21.1 mm/0.831 in. wide	**769-194/769-319**	5
10-pole, 26.1 mm/1.028 in. wide	**769-195/769-319**	5

Unlocking pliers, for removing empty component plug housing covers

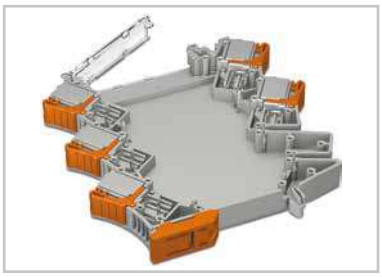


210-492 1

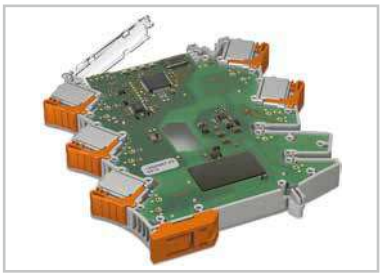
Please find the entire product range in our Full Line Catalog. For additional information, visit www.wago.com.

Modular Empty Housings
2857 Series
– Overview and Configuration –

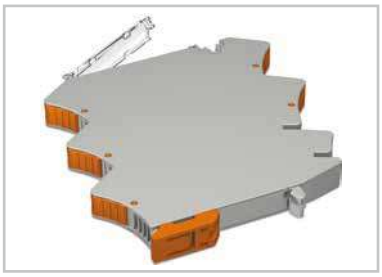
Supplied as a pre-assembled unit



1. Pre-assembled unit



2. Inserting and soldering the PCB



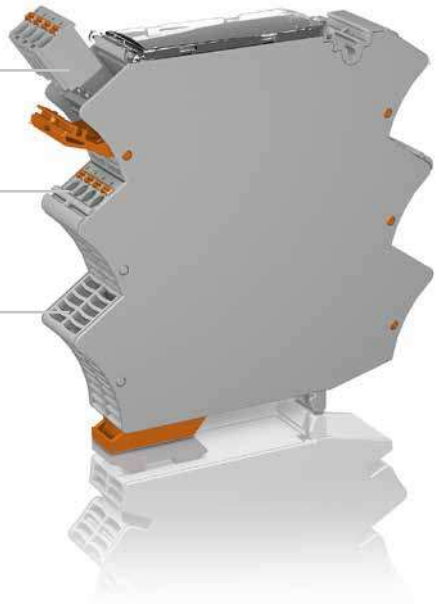
3. Snapping on side wall

Pluggable *picoMAX*® connections

Fixed *picoMAX*® connections

Empty slot

... freely selectable for each connection point

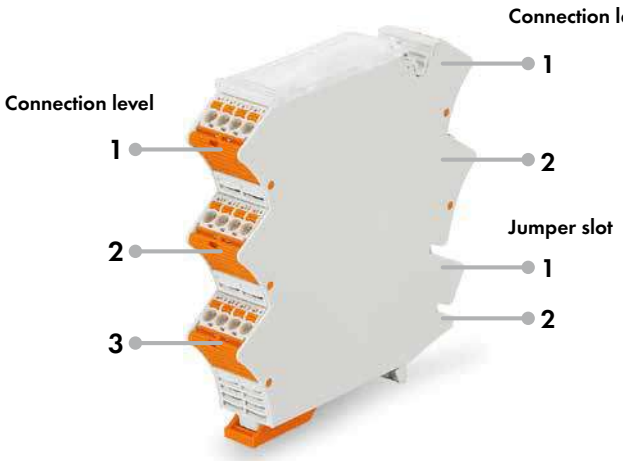


Housing configuration:

Housing width: 12.5 mm/0.49 in.	 **2857-101**	 **2857-102**	 **2857-103**	–
Housing width: 22.5 mm/0.89 in.	 **2857-121**	 **2857-122**	 **2857-123**	 **2857-124**
Connection levels	2-2	3-2	3-3	1-1
Jumper slots	2-2	0-2	0-0	2-2

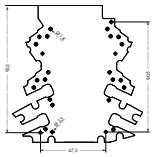
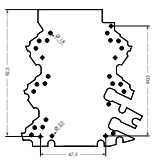
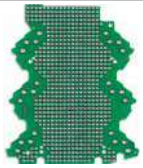
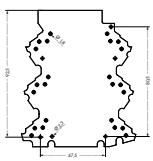
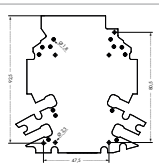
Mixed configuration (fixed/removable/empty slot) upon request.

Example of connection level and jumper slot assignment:



Connection levels	3-2
Jumper slots	0-2

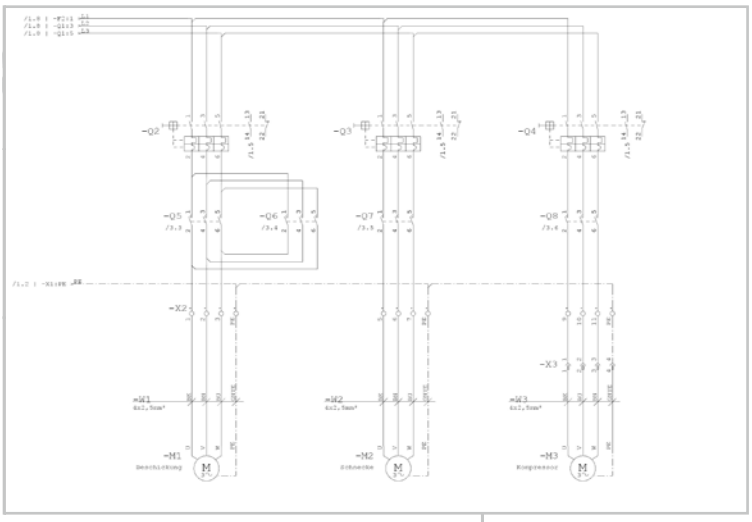
Stripboards for installation in 12.5 mm and 22.5 mm empty housings:

		2-2 connection levels, 2-2 jumper slots **2857-191/3140-000**
		3-2 connection levels, 0-2 jumper slots **2857-192/3140-000**
		3-3 connection levels, 0-0 jumper slots **2857-193/3140-000**
		1-1 connection levels, 2-2 jumper slots **2857-194/3140-000**

10

Smart Data Engineering

Supports Workflow from Control Cabinet Planning to Installation



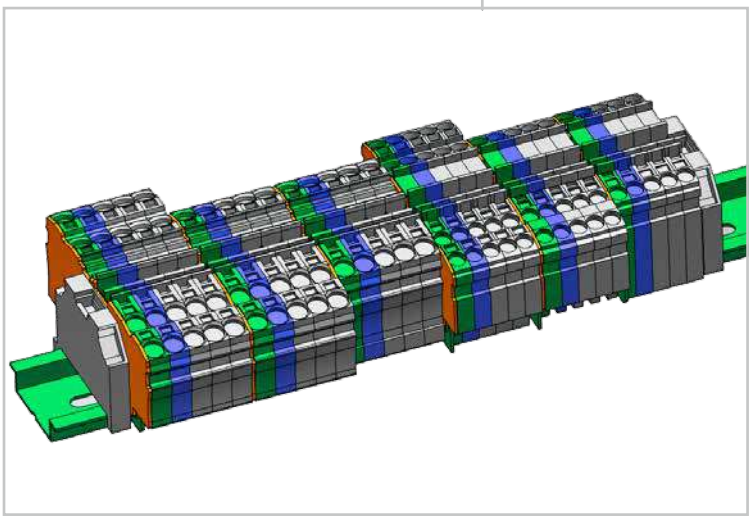
Electrical Engineering

Directly import data from the CAE circuit diagram into the ***smart***DESIGNER engineering software



Technical and Commercial Item Data:

Classified by ETIM and ecl@ss – also in Advanced Format

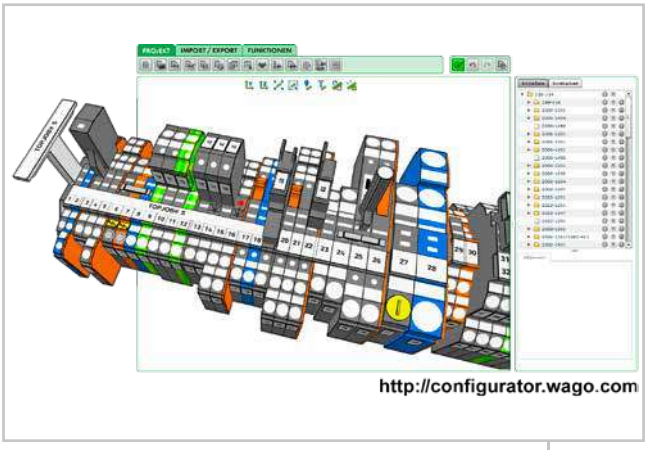


Mechanical Engineering

CAD export into all standard CAD formats and in different granularities

smartDESIGNER

- Free online configuration and ordering software for all electrical interconnect and automation components
- No installation
- Available worldwide 24 hours a day
- Current item data
- Edit via WAGO expert knowledge
- Design in full 3D





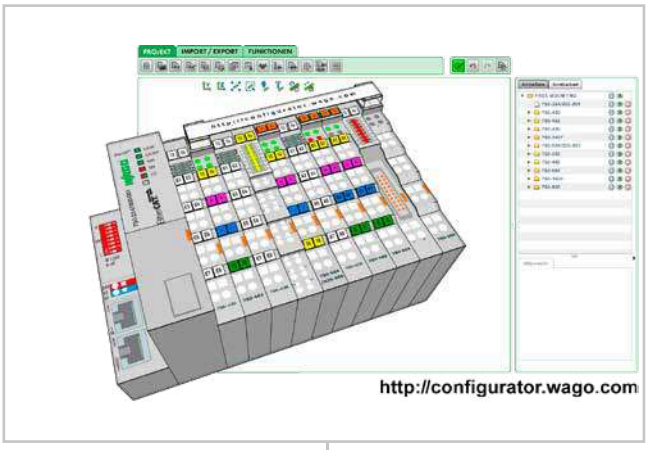
smartSCRIPT

- XML-based software for all WAGO marking materials
- Data import from CAE systems
- Font size check
- Material selection wizard



Configuration made easy – http://configurator.wago.com

Smart Data Engineering
Fast and Easy Control Cabinet Marking

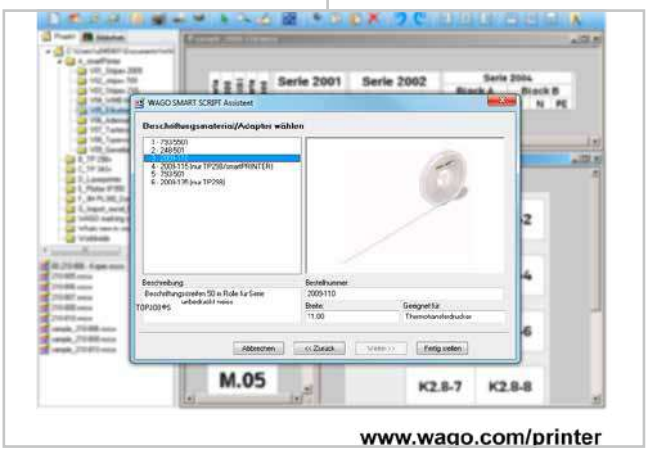


smartDESIGNER
After designing, print labeling materials directly out of the project via ***smart***PRINTER

smartPRINTER
Thermal transfer printer quickly and easily labels the entire control cabinet:

- WAGO marking strips and markers
- Type plates
- Push-button markers
- Labels
- Cable and wire markers

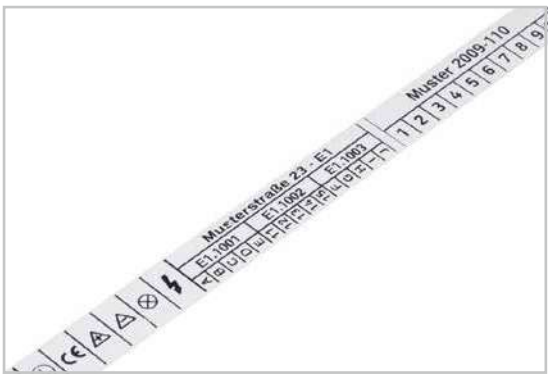


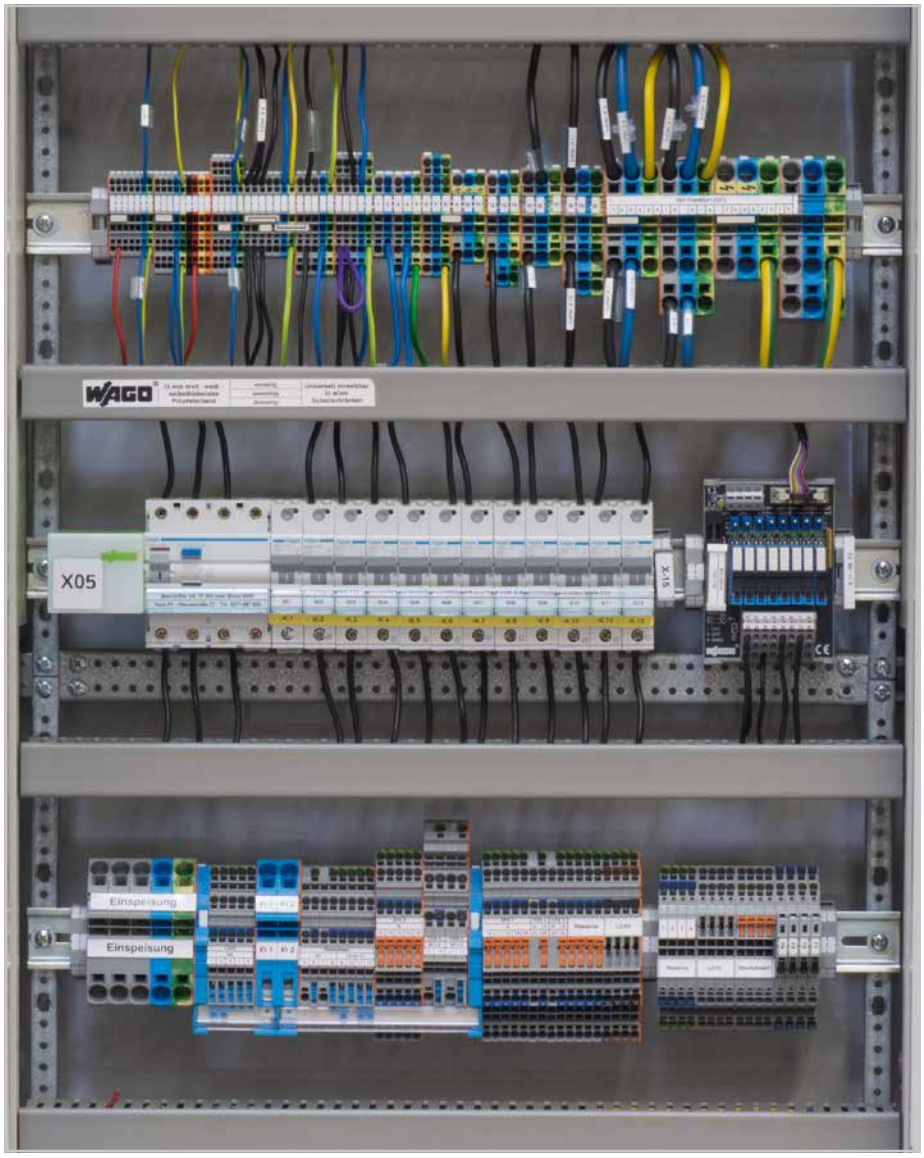


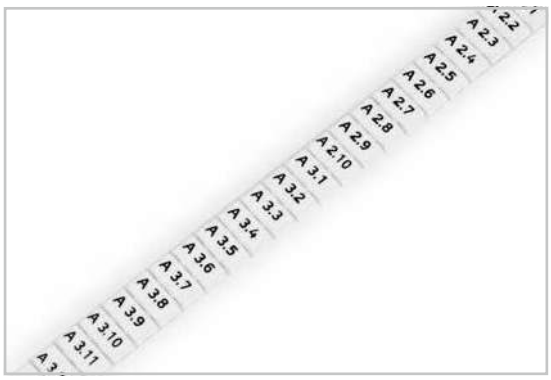
smartSCRIPT

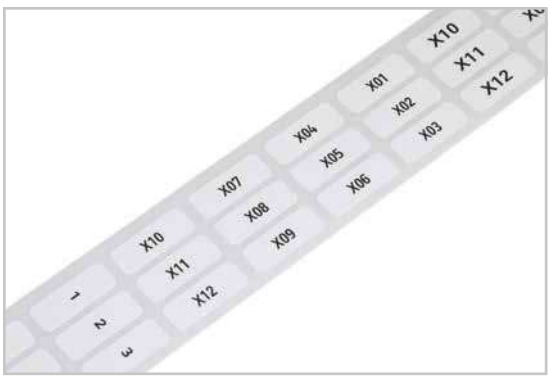
- Import from CAE systems or create customized marking
- Print directly on ***smart***PRINTER











For more information, visit www.wago.com/smartprinter

*smart*PRINTER
– Installation –



Printer upon delivery



Accessories for material unwinding



Open the printer.



Insert the ink ribbon.



Prepare the marking material.



Printing 2009-110 ***marking***STRIP on TOPJOB® S Terminal Blocks via **smart**PRINTER.



Insert and secure the suitable roller into the printer.



Printer has several interfaces:
USB, ETHERNET, serial COM port



Fast, cost-effective and easy to use – printing WMB Inline markers via ***smart***PRINTER

Also visit www.wago.com/smartprinter

Thermal Transfer Printer, Plotter, Engraver
258 Series

smartPRINTER **300 dpi resolution** **Dimensions (W x H x D):** **135 x 175 x 245 mm**	**IP 200 Plotter,** **including software** **Dimensions (W x H x D):** **125 x 660 x 440 mm**	**EG 450 Engraver** **Dimensions (W x H x D):** **240 x 290 x 315 mm (control unit + vacuum cleaner on top of each other)**







Description	Item No.
smartPRINTER	**258-5000**
includes power supply unit and cable, USB cable, 1 x marking strip roll and WMB Inline markers, 2 x roller, 1 x roll holder, 1 x ink ribbon, ***smart***SCRIPT marking software and driver	
Printing method	Thermal transfer
Print head	Glass layer, spring-mounted
Print resolution	300 dpi
Print speed	127 mm/s (max.) (recommended: 50.8 mm/s)
Print width	47 mm (max.)
Print length	762 mm (max.)
Operating display	Color TFT-LCD with navigation button
Memory	8 MB Flash, 16 MB SDRAM
Interfaces	ETHERNET 10/100, USB, RS-232
Sensors	Transmissive/reflective sensor (centrally mounted)
Operating voltage	100 ... 240 VAC 50 ... 60 Hz
Dimensions (W x H x D)	135 x 175 x 245 mm
Weight	2,000 g (without printing material)
Operating temperature	5 °C ... 40 °C (41 °F ... 104 °F)
Storage temperature	-20 °C ... 50 °C (-4 °F ... 122 °F)
Safety approvals	CE (EMC)
Ink ribbon	Reel diameter: 40 mm; Internal core diameter: 0.5" (12.7 mm); Length (max.): 110 m; Width (max.): 58 mm

Ink ribbon for *smart*PRINTER	**258-5005**
Roller for *marking*STRIP	**258-5006**
Roller for WMB Inline	**258-5007**
Roller for Miniature WSB Inline	**258-5008**
Roller for Phoenix products	**258-5009**
Roller for Weidmüller products	**258-5010**

Carrying case for *smart*PRINTER	
Light gray, with foam padding for printer	
Dimensions (W x H x D): 50 x 26 x 33 cm	
	258-5015

For additional information, visit www.wago.com/smartprinter

Description	Item No.
IP 200 Plotter, A4	**258-200**
Maximum plot area	440 x 305 mm (A3) 220 x 305 mm (A4)
Interfaces	Parallel Centronics (LPT), USB 1.1
Control language	Based on HP-GL 7475A
Data buffer	16 MB
Speed	400 mm/s (max.)
Drive system	Two-phase stepper motor
Pen storage unit	Max. 4 pens (optimum seal)
Plotter pen	Special plotter pens with HP receptacle
Addressable resolution	0.01 mm
Repeat accuracy	0.05 mm
Power supply	Via separate desktop power supply unit, equipped with exchangeable supply line
Operating voltage	120 ... 240 VAC, 50 ... 60 Hz
Voltage range	90 ... 264 VAC
Current consumption (internal)	0.3 A (max.) at 220 VAC
Weight	approx. 8,000 g

WAGO disposable plotter pen	
0.18 mm line width	**258-326**
0.25 mm line width	**258-327**
0.35 mm line width	**258-328**

Carrier plate for:	
WSB 5 mm	**258-361**
WSB 4 mm	**258-362**
Miniature WSB	**258-363**
Group marker carrier (209-112)	**258-364**
WMB (3.5 mm/4 mm /5 mm)	**258-368**
Marker tags (210-199/200)	**258-369**
WAGO marker cards (210-110/120)	**258-370**

Other receptacles available upon request

Software for Printer and Plotter

WAGO ***smart***DESIGNER
WAGO ***smart***SCRIPT
VarioSign

Visit www.wago.com/printer

Description	Item No.
EG 450 Engraver	**258-450**
Technical data (engraving spindle):	
Rotational speed	min. 5000 rpm, max. 50000 rpm
Torque	6 Ncm
Frequency	83 ... 830 Hz
Power consumption	60 W (max.)
Collets	Shaft diameter: 3 mm
Clamping mechanism	Head clamping
Run-out with collet	0.03 mm
Housing	Aluminum
Clamping diameter	25 mm
Ball bearing type	Steel, lifetime lubricated, 2-times
Cooling	Automatic via built-in fan
Application area	Engraving only
Guaranteed bearing operation	Min. 1,000 hours if used properly
Technical data (VEB 500 Control Unit)	
Operating voltage	100 ... 240 VAC / 50 ... 60 Hz
Weight	Engraving spindle + control unit + vacuum cleaner + accessories: 8,000 g

Engraver set (sizes: 0.2/0.3/0.4/0.5/0.7/1 mm)	**258-452**

Engraver	
Engraver size: 0.2 mm	**258-452/000-002**
Engraver size: 0.3 mm	**258-452/000-003**
Engraver size: 0.4 mm	**258-452/000-004**
Engraver size: 0.5 mm	**258-452/000-005**
Engraver size: 0.7 mm	**258-452/000-007**
Engraver size: 1 mm	**258-452/000-010**
Engraver (stainless steel)	
Engraver size: 0.2 mm	**258-458/000-002**
Engraver size: 0.4 mm	**258-458/000-004**

Vacuum cleaner bag (type Y98)	**258-457**

Engraver carrier plates	
90 mm x 100 mm x 3	**258-454**
60 mm x 100 mm x 4	**258-455**
30 mm x 100 mm x 9	**258-456**
DIN A4	**258-383**

11

Marking Strips, Marking Cards
Computer Marking
2009 / 709 / 210 Series

Thermal Transfer Printer
Plotter

Accessories

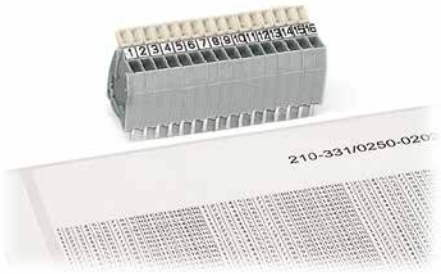
WAGO marking cards
for 260/261/262 Series,
computer marked,
40 self-adhesive strips per card

Strip height: 6 mm

WAGO marking cards,
computer marked,
for 2.5 mm, 2.54 mm, 3.5 mm,
3.81 mm, 5 mm, 5.08 mm, 7.5 mm,
7.62 mm, 10 mm and 10.16 mm pin spacing,
100/80 self-adhesive strips per card







Description	Item No.
Marking strip, for TOPJOB® S,	
white, plain, 11 mm wide,	
50 m coil	**2009-110**
Marking strip,	
for 870, 869, 862, 270, 750-103 Series	
white, plain, 7.5 mm wide,	
50 m coil	**709-178**
translucent, plain, 7.5 mm wide,	
50 m coil	**709-177**
for 767 Series *SPEEDWAY*	
white, plain, 10 mm wide,	
50 m coil	**757-901/000-050**
WMB Inline, white (other colors, see page 245)	
3.5 mm, 2,300 markers	**2009-113**
4.2 mm, 2,000 markers	**2009-114**
5 mm, 1,500 markers	**2009-115**
5 mm, 8,000 markers	**2009-135**
for Phoenix terminal blocks, plain,	
900 WMB markers per roll	
	2009-515
for Weidmüller terminal blocks, plain,	
1,200 WMB markers per roll	
	2009-615
Miniature WSB Inline, white (other colors, see page 245)	
5 mm, 1,700 markers	**2009-145**



Marking	Item No.	Pack. Unit
for 2-conductor terminal strips (260 Series)		
1 ... 10 (120x)	**210-333/500-002**	1 card
11 ... 20 (120x)	**210-333/500-003**	1 card
21 ... 30 (120x)	**210-333/500-004**	1 card
31 ... 40 (120x)	**210-333/500-005**	1 card
41 ... 50 (120x)	**210-333/500-006**	1 card
for 4-conductor terminal strips (260 Series)		
1 ... 10 (80x)	**210-333/800-002**	1 card
11 ... 20 (80x)	**210-333/800-003**	1 card
21 ... 30 (80x)	**210-333/800-004**	1 card
31 ... 40 (80x)	**210-333/800-005**	1 card
41 ... 50 (80x)	**210-333/800-006**	1 card
for 2-conductor terminal strips (261 Series)		
1 ... 12 (80x)	**210-333/600-103**	1 card
13 ... 24 (80x)	**210-333/600-104**	1 card
25 ... 36 (80x)	**210-333/600-105**	1 card
37 ... 48 (80x)	**210-333/600-106**	1 card
for 4-conductor terminal strips (261 Series)		
1 ... 16 (40x)	**210-333/1000-202**	1 card
17 ... 32 (40x)	**210-333/1000-204**	1 card
33 ... 48 (40x)	**210-333/1000-206**	1 card
for 2-conductor terminal strips (262 Series)		
1 ... 20 (40x)	**210-333/700-020**	1 card
21 ... 40 (40x)	**210-333/700-108**	1 card
41 ... 60 (40x)	**210-333/700-109**	1 card
for 4-conductor terminal strips (262 Series)		
1 ... 12 (40x)	**210-333/1200-103**	1 card
13 ... 24 (40x)	**210-333/1200-104**	1 card
25 ... 36 (40x)	**210-333/1200-105**	1 card
37 ... 48 (40x)	**210-333/1200-106**	1 card

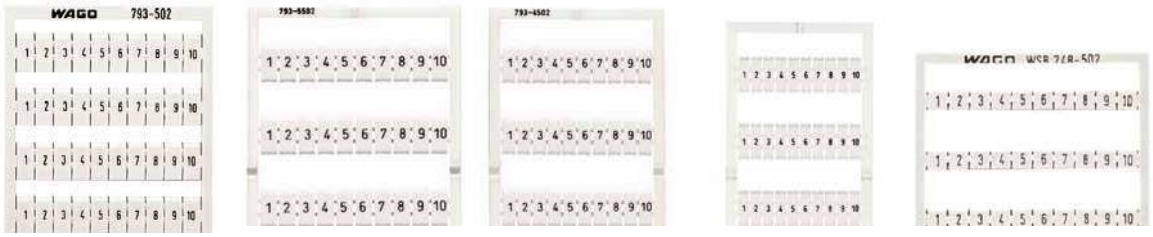
Self-adhesive marking strips
on DIN A4 cards,
plain, 182 mm long,
selectable pin spacing

Strip height: 2.3 mm/	100 strips	**210-331**
Strip height: 3 mm/	80 strips	**210-332**
Strip height: 5 mm/	48 strips	**210-334**
Strip height: 6 mm/	40 strips	**210-333**
Strip height: 9 mm/	40 strips	**210-335**

Marking	Item No.	Pack. Unit
for terminal strips with		
2.5 mm pin spacing, 2.3 mm high strip/100 strips		
1 ... 16 (400x)	**210-331/250-202**	1 card
17 ... 32 (400x)	**210-331/250-204**	1 card
33 ... 48 (400x)	**210-331/250-206**	1 card
2.54 mm pin spacing, 2.3 mm high strip/100 strips		
1 ... 16 (400x)	**210-331/254-202**	1 card
17 ... 32 (400x)	**210-331/254-204**	1 card
33 ... 48 (400x)	**210-331/254-206**	1 card
3.5 mm pin spacing, 3 mm high strip/80 strips		
1 ... 16 (240x)	**210-332/350-202**	1 card
17 ... 32 (240x)	**210-332/350-204**	1 card
33 ... 48 (240x)	**210-332/350-206**	1 card
3.81 mm pin spacing, 3 mm high strip/80 strips		
1 ... 16 (160x)	**210-332/381-202**	1 card
17 ... 32 (160x)	**210-332/381-204**	1 card
33 ... 48 (160x)	**210-332/381-206**	1 card
5 mm pin spacing, 3 mm high strip/80 strips		
1 ... 16 (160x)	**210-332/500-202**	1 card
17 ... 32 (160x)	**210-332/500-204**	1 card
33 ... 48 (160x)	**210-332/500-206**	1 card
5.08 mm pin spacing, 3 mm high strip/80 strips		
1 ... 16 (160x)	**210-332/508-202**	1 card
17 ... 32 (160x)	**210-332/508-204**	1 card
33 ... 48 (160x)	**210-332/508-206**	1 card
7.5 mm pin spacing, 3 mm high strip/80 strips		
1 ... 20 (80x)	**210-332/750-020**	1 card
7.62 mm pin spacing, 3 mm high strip/80 strips		
1 ... 20 (80x)	**210-332/762-020**	1 card
10 mm pin spacing, 3 mm high strip/80 strips		
1 ... 16 (80x)	**210-332/1000-202**	1 card
17 ... 32 (80x)	**210-332/1000-204**	1 card
33 ... 48 (80x)	**210-332/1000-206**	1 card
10.16 mm pin spacing, 3 mm high strip/80 strips		
1 ... 16 (80x)	**210-332/1016-202**	1 card
17 ... 32 (80x)	**210-332/1016-204**	1 card
33 ... 48 (80x)	**210-332/1016-206**	1 card

Marker Cards
WMB Multi Marking System
793 / 794 / 248 Series

WAGO WMB Multi Marking System	WAGO WMB Multi Marking System	WAGO WMB Multi Marking System and WAGO Miniature WSB Quick Marking System
for terminal blocks featuring Miniature WSB and WSB marker slots,	for terminal blocks featuring Miniature WSB and WSB marker slots,	
10 strips with 10 markers for each card, 5 cards per packing unit	10 strips with 10 markers for each card, 5 cards per packing unit	10 strips with 10 markers for each card, 5 cards per packing unit



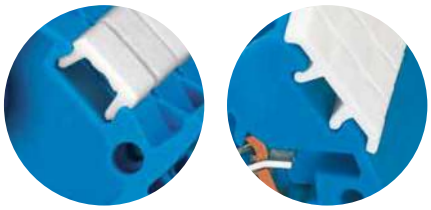
Marking	Item No.	Item No.	Item No.	Item No.	Item No.
		WMB Multi Marking System			Miniature WSB
		for terminal block width:			for 264, 750, 769 Series
	5 mm	5 ... 5.2 mm stretchable	4 ... 4.2 mm stretchable	3.5 mm	
plain	793-501	793-5501	793-4501	793-3501	248-501
1 ... 10 (10x)	793-502	793-5502	793-4502	793-3502	248-502
11 ... 20 (10x)	793-503	793-5503	793-4503	793-3503	248-503
21 ... 30 (10x)	793-504	793-5504	793-4504	793-3504	248-504
31 ... 40 (10x)	793-505	793-5505	793-4505	793-3505	248-505
41 ... 50 (10x)	793-506	793-5506	793-4506	793-3506	248-506
1 ... 9 (10x)	793-565	793-5565	793-4565	793-3565	248-565
1 ... 50 (2x)	793-566	793-5566	793-4566	793-3566	248-566
51 ... 100 (2x)	793-507	793-5507	793-4507	793-3507	248-507
101 ... 150 (2x)	793-508	793-5508	793-4508	793-3508	248-508
151 ... 200 (2x)	793-509	793-5509	793-4509	793-3509	248-509
R, S, T, U, V, W, X, Y, Z, MP	793-544	793-5544	793-4544	793-3544	248-544
A, B, P, N, PE, PEN, L1, L2, L3, ⏚	793-545	793-5545	793-4545	793-3545	248-545
(in strips with 10 identical letters)					
				All listed markings are also available on colored marker cards (black printing).	
for double-deck terminal blocks					
1, 3, 5, ... , 99 and 2, 4, 6, ... , 100 (1x)	793-599	793-5599	793-4599	Item no. suffixes for colored marker cards:	
				yellow	.../000-002
				red	.../000-005
for triple-deck terminal blocks				blue	.../000-006
				gray	.../000-007
1, 4, 7, ... , 88 and	794-557	794-5557	–	orange	.../000-012
2, 5, 8, ... , 89 and				olive	.../000-017
3, 6, 9, ... , 90 and				green	.../000-023
91, 94, 97, ... , 99 (1x)				violet	.../000-024

WMB marker slot



WMB

Miniature WSB marker slot



Miniature WSB WMB



11

Marking Conductors from 0.25 … 16 mm²

211 Series

Marking sleeve, halogen-free for one marker, to be fitted prior to conductor termination



Description	Item No.	Pack. Unit
Marking sleeve,		
12 mm long		
for 1.6 … 3.2 mm conductor diameter		
or 0.25 … 1.5 mm² cross-section		
	211-112	2000
for 2.2 … 4.5 mm conductor diameter		
or 0.5 … 4 mm² cross-section		
	211-113	2000
for 3.7 … 5.9 mm conductor diameter		
or 2.5 … 6 mm² cross-section		
	211-114	1000
for 5.5 … 10 mm conductor diameter		
or 10 … 25 mm² cross-section		
	211-115	1000

Marking sleeve, halogen-free for one marker, to be fitted prior to conductor termination



Description	Item No.	Pack. Unit
Marking sleeve,		
23 mm long		
for 1.6 … 3.2 mm conductor diameter		
or 0.25 … 1.5 mm² cross-section		
	211-122	2000
for 2.2 … 4.5 mm conductor diameter		
or 0.5 … 4 mm² cross-section		
	211-123	2000
for 3.7 … 5.9 mm conductor diameter		
or 2.5 … 6 mm² cross-section		
	211-124	1000
for 5.5 … 10 mm conductor diameter		
or 10 … 25 mm² cross-section		
	211-125	1000

Marking sleeve, halogen-free, for cable tie, for one marker, can also be fitted after install



Description	Item No.	Pack. Unit
Marking sleeve,		
23 mm long		
for 10 mm² conductors and larger		
for 6 mm Ø cables and larger		
	211-129	1000
Note: Only use with markers for plotter.		
Cable tie set		
2.5 x 100 mm, 25 cable ties per set		
	807-090/101-100	1

Accessories, 211 Series

Markers, for thermal transfer printer,		
	3,000 markers per roll; 12 mm long	
○	**211-111**	1
Markers, for plotter,		
	57 markers per card, 12 mm long	
○	**211-110**	1
Carrier plate for marker cards (IP 350 Plotter)		
	**258-370**	1

Markers, for thermal transfer printer,		
	3,000 cards per roll; 23 mm long	
○	**211-121**	1
Markers, for plotter,		
	34 markers per card, 23 mm long	
○	**211-120**	1
Carrier plate for marker cards (IP 350 Plotter)		
	**258-370**	1

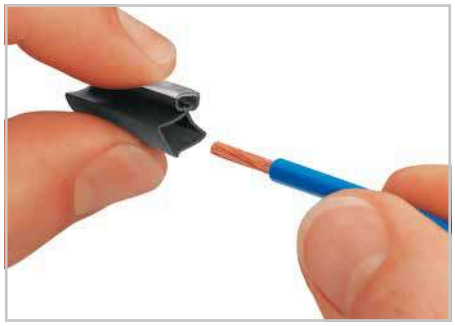


Slide the plotted or printed marker into the marking sleeve receptacle.
Exchanging the marker is also possible after the conductor has been terminated.

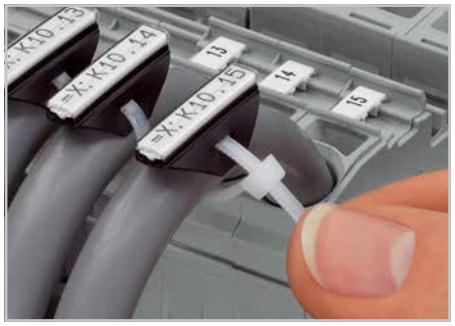
Applications



Marking conductors via marking sleeves.



Compress the sleeve and slide it onto the conductor to be marked.



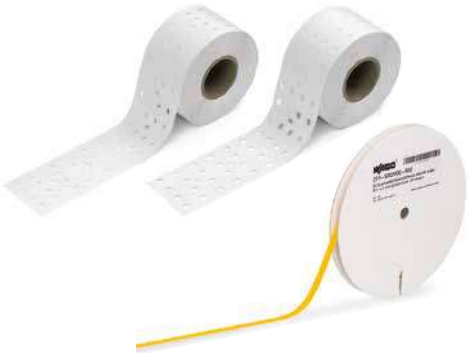
Attach the marking sleeve (211-129) to individual cables or conductors via cable ties (807-090/101-100).

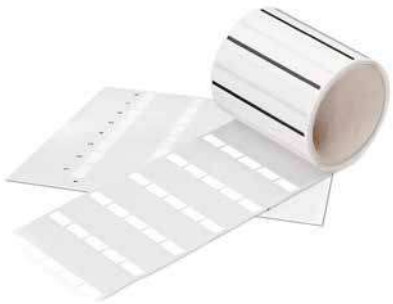
Conductor Markers for Thread-On Mounting
Self-Laminating Labels for Cable Marking
211 Series

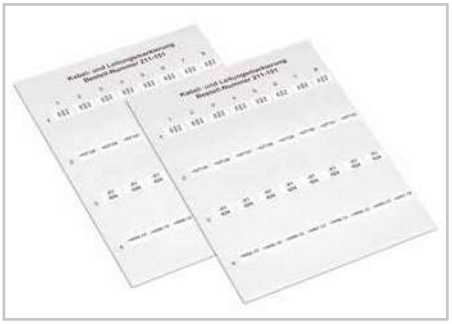
Conductor markers for thread-on mounting
Shrink tubes for conductor marking

Self-laminating labels
for cable marking
on DIN A4 sheets or roll
Cable diameter: approx. 3 ... 14 mm

Conductor markers







Self-laminating labels are available on A4 sheets for laser printers (plotters) or are supplied on roll for thermal transfer printers.

Description	Item No.	Pack. Unit
Conductor markers for thread-on mounting,		
1,000 markers/roll, for 0.75 ... 1.5 mm² conductors		
	211-861	1
1,000 markers/roll, for 2.5 ... 6 mm² conductors		
	211-862	1
1,000 markers/roll, for 6 ... 16 mm² conductors		
	211-863	1
Shrink tubes for conductor marking,		
halogen-free, 2:1 shrink ratio		
20 m/roll		
◯ 2.4 mm ø, 0.25 ... 0.75 mm²	**211-500**	1
● 2.4 mm ø, 0.25 ... 0.75 mm²	**211-500/000-002**	1
◯ 3.2 mm ø, 0.75 ... 1 mm²	**211-501**	1
● 3.2 mm ø, 0.75 ... 1 mm²	**211-501/000-002**	1
◯ 4.8 mm ø, 1 ... 2.5 mm²	**211-502**	1
● 4.8 mm ø, 1 ... 2.5 mm²	**211-502/000-002**	1
◯ 6.4 mm ø, 4 ... 6 mm²	**211-503**	1
● 6.4 mm ø, 4 ... 6 mm²	**211-503/000-002**	1
15 m/roll		
◯ 9.5 mm ø, 10 ... 16 mm²	**211-504**	1
● 9.5 mm ø, 10 ... 16 mm²	**211-504/000-002**	1
◯ 12.7 mm ø, 25 ... 35 mm²	**211-505**	1
● 12.7 mm ø, 25 ... 35 mm²	**211-505/000-002**	1
◯ 19.0 mm ø, 35 ... 50 mm²	**211-506**	1
● 19.0 mm ø, 35 ... 50 mm²	**211-506/000-002**	1

Description	Item No.	Pack. Unit
Labels on DIN A4 sheets,		
for laser printer		
Marking surface: "S" = 9 mm x "B" = 17 mm		
"L" = 35 mm		
for max. 8 mm cable diameter		
70 labels per sheet		
	211-150	20
Marking surface: "S" = 13 mm x "B" = 21 mm		
"L" = 56 mm		
for max. 14 mm cable diameter		
32 labels per sheet		
	211-151	25
Conductor markers, plain		
Marking surface: 9 x 18 mm, 1,000 markers per roll		
	211-855	1
Marking surface: 15 x 22 mm, 1000 markers per roll		
	211-856	1
Marking surface: 18 x 44 mm, 500 markers per roll		
	211-857	1



Remove the printed label from the sheet or roll.

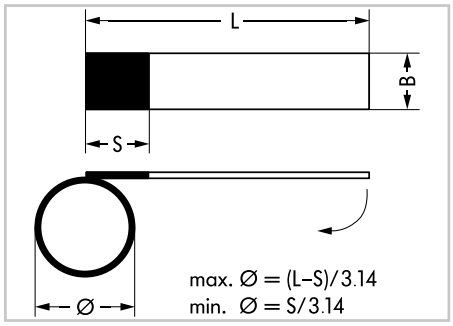


Wrap the label around the conductor or cable. The transparent laminate protects the marking.

Application and Dimensions



Conductor Markers for Thread-On Mounting



Dimensions of self-laminating label (in mm)



Compress the shrink tube and slide it onto the conductor to be marked.

11

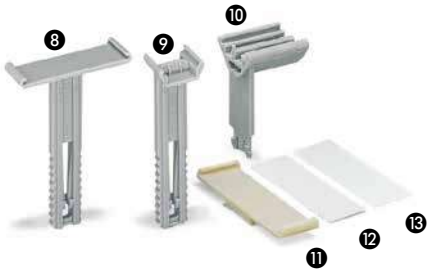
I/O Marking, Labels and Push-Button Markers
210 / 211 Series

	Description	Technical Data	Color/Item No.
	Markers for I/O components (requires 258-371 Carrier Plate for plotting)	Plotter, 12 x 7 mm	○ **211-211**
	Label roll, polyester, self-adhesive	15 x 6 mm, 3,000 labels/roll	○ **210-805**
		15 x 6 mm, 3,000 labels/roll	● **210-805/000-002**
		15 x 9 mm, 3,000 labels/roll	○ **210-806**
		15 x 9 mm, 3,000 labels/roll	● **210-806/000-002**
		20 x 8 mm, 3,000 labels/roll	○ **210-807**
		20 x 8 mm, 3,000 labels/roll	● **210-807/000-002**
		9.5 x 25 mm, 1,500 labels/roll	○ **210-808**
		5 x 35 mm, 3,000 labels/roll	● **210-810**
	Label roll, fabric, self-adhesive	20 x 7 mm, 3,000 labels/roll	○ **210-811**
		20 x 7 mm, 3,000 labels/roll	● **210-811/000-002**
	Type plates, polyester	70 x 33 mm, 500 plates/roll	○ **210-801**
		70 x 33 mm, 500 plates/roll	○ **210-802**
		44 x 99 mm, 500 plates/roll	○ **210-803**
		44 x 99 mm, 500 plates/roll	○ **210-804**
	Continuous labels, polyester, self-adhesive for PCB and MCS	2.3 mm wide, 9 lines at 25 m	○ **210-831**
		3 mm wide, 9 lines at 25 m	○ **210-832**
		5 mm wide, 5 lines at 25 m	○ **210-834**
		6 mm wide, 5 lines at 25 m	○ **210-833**
	Push-button markers, semi-permanent adhesive	26.5 x 18 mm, 1,000 markers/roll	○ **210-850**
		27.5 x 17.5 mm, 1,000 markers/roll	○ **210-856**
		22 x 22 mm, 1,000 markers/roll	○ **210-858**
		27 x 27 mm, 1,000 markers/roll	○ **210-860**
		27 x 12.5 mm, 1,000 markers/roll	○ **210-862**
	Plastic covers for push-button markers	26.5 x 18 mm, transparent, 100 covers	○ **210-851**
		27.5 x 17.5 mm, transparent, 100 covers	○ **210-857**
		22 x 22 mm, transparent, 100 covers	○ **210-859**
		27 x 27 mm, transparent, 100 covers	○ **210-861**
		27 x 12.5 mm, transparent, 100 covers	○ **210-863**
	Push-button markers, permanent adhesive	27 x 19 mm, 350 markers/roll	○ **210-852**
		27 x 18 mm, 350 markers/roll	○ **210-855**
	Universal push-button frame for 210-852	27 x 19 mm, transparent, 100 frames	○ **210-853**
	Label roll DD (device designation), polyester	28 x 28 mm, 175 µm thick, 500 labels/roll	○ **210-854**
	Marking strip	15 mm, 50 m roll	○ **210-701**

Group Marker Carriers
End Stops
209 / 210 / 249 / 709 / 2002 / 2009 Series

TOPJOB® S group marker carriers	Group marker carriers	Screwless end stops for DIN-35 rail



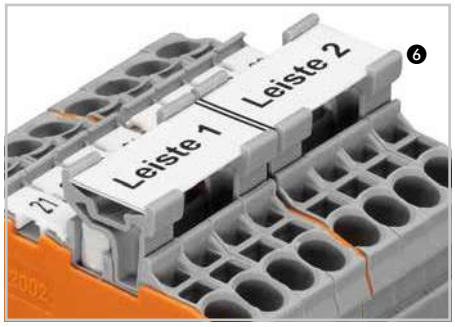


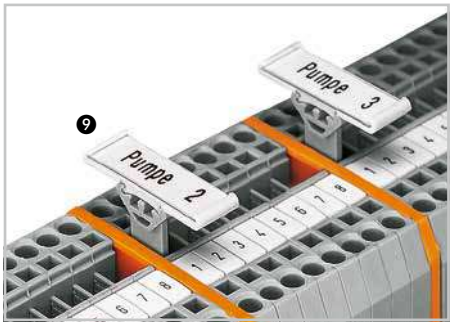


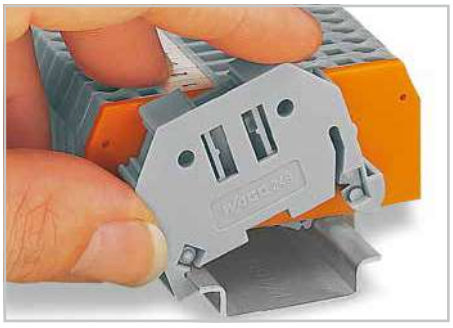
	Item No.	Pack. Unit
TOPJOB® S group marker carriers,		
snap-on type for jumper slot,		
for WMB Multi Marking System,		
WMB Inline and marking strips		
5 mm wide	**2009-191** ❶	50 (2x25)
10 mm wide	**2009-192** ❷	50 (2x25)
15 mm wide	**2009-193** ❸	50 (2x25)
TOPJOB® S group marker carrier		
snap-on type for jumper slot,		
for marking strips		
10 mm wide	**2009-196** ❹	50 (2x25)
TOPJOB® S group marker carrier,		
snap-on type for end stops (249-116 and 249-117),		
adjustable in height from 45 to 61 mm		
for 9 WMB markers or marking strips		
12.2 mm wide	**2009-163** ❺	50 (2x25)
Marker carrier,		
for lateral marker slots		
5 mm wide	**2009-198** ❻	200 (8x25)
Marker carrier,		
for jumper slots (2002 Series)		
5 mm wide	**2002-161** ❼	100 (4x25)

	Item No.	Pack. Unit
Height-adjustable group marker carriers,		
for 249-116 and 249-117 end stops,		
for 1 marker or self-adhesive label		
and transparent protection covers		
10 mm wide	**249-119** ❽	50 (2x25)
6 mm wide	**249-120** ❽	50 (2x25)
for 2 WSB Quick markers each or		
1 x marking strip (2009-110)		
	249-118 ❾	100 (4x25)
Group marker carrier, fits into jumper slot of rail-mounted terminal blocks, for up to 3 WMB markers		
15 mm wide	**209-140** ❿	50
Group marker carrier, snaps into plastic end stop		
10 mm wide	**209-112** ⓫	50
Markers, from white cardboard,		
for self-marking, 100 markers per sheet		
	209-113 ⓬	1 sheet
Stickers,		
for self-marking, 100 stickers per sheet		
	210-345	1 sheet
Protection cover, transparent		
	209-114 ⓭	50
Carrier-through element, height-adjustable		
	709-118	25
Carrier-end element, height-adjustable		
	709-119	25

	Item No.	Pack. Unit
Screwless end stop, for DIN-35 rail		
6 mm wide	**249-116**	100 (4 x 25)
Screwless end stop, for DIN-35 rail		
10 mm wide	**249-117**	50 (2 x 25)
Screwless end stop, for DIN-35 rail		
14 mm wide	**249-197**	10

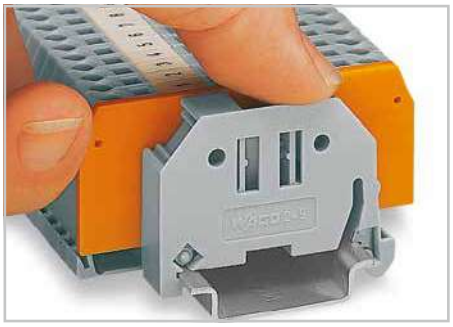












11

Sealable, Transparent Covers for Rail-Mounted Terminal Blocks
Collective Carriers for Jumpers
209 / 282 / 709 / 2009 Series

Cover and cover carrier, type 1, suitable for:
279 ... 282 Series Rail-Mounted Terminal Blocks
264 Series Miniature Rail-Mounted Terminal Blocks

Cover and cover carrier, type 2, suitable for:
283 ... 285 Series Rail-Mounted Terminal Blocks
280/281 Series Double-/Triple-Deck Terminal Blocks
280 Series Sensor/Actuator Terminal Blocks
282 Series Disconnet/Test Terminal Blocks for Transformer Circuits

Switchgear cabinet drawer
Collective carrier for adjacent jumpers
Collective carriers for jumpers







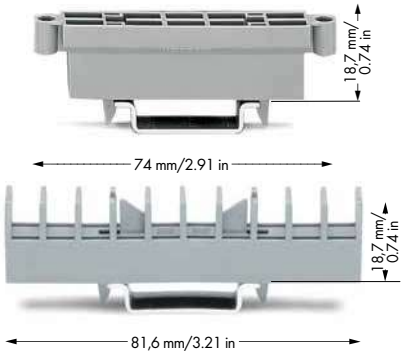
Color	Item No.	Pack. Unit
Cover, type 1,		
1 m long, for cover carrier (type 1),		
transparent	**709-153**	10

Color	Item No.	Pack. Unit
Cover, type 2,		
1 m long, for cover carrier (type 2),		
transparent	**709-154**	1

Item No.	Pack. Unit
Switchgear cabinet drawer,	
DIN-35 rail mount drawer	
709-591	1







Color	Item No.	Pack. Unit
Cover carrier, type 1,		
incl. mounting/securing screws		
and knurled nuts		
◯	**709-167**	10

Color	Item No.	Pack. Unit
Cover carrier, type 2,		
incl. mounting/securing screws		
and knurled nuts		
◯	**709-168**	10

Color	Item No.	Pack. Unit
Collective carrier for adjacent jumpers, 10.7 mm wide		
◯	**209-100**	50 (2x25)
Suitable for 279, 280, 281, 282 and 284 Series		
Adjacent Jumpers and 215 Series Banana Plugs		
Collective carrier for TOPJOB® S Jumpers, 16.9 mm wide		
◯	**2009-180**	25
Suitable for 2000 ... 2016 Series Jumpers		
Collective carrier for jumpers, 15.8 mm wide		
◯	**282-369**	25
Suitable for jumpers for:		
transverse switching terminal blocks (282-811) and		
longitudinal switching disconnect terminal blocks (282-821)		

Accessories, 709 Series

Spare mounting/securing screws		
	209-196	200 (8x25)



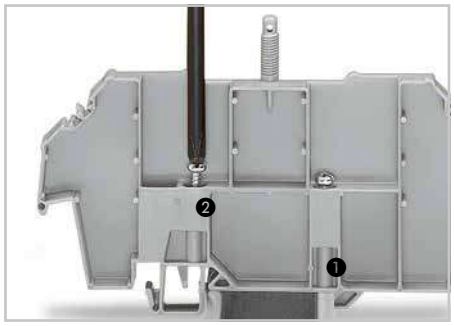
Spare knurled nuts		
	210-549	100 (4x25)



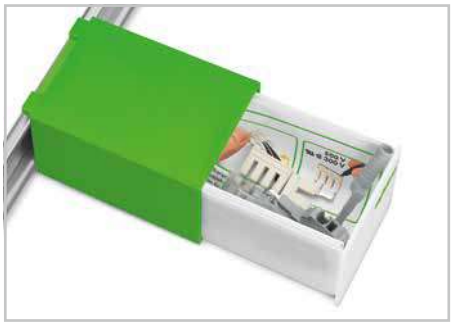
Marking card with 6 marking strips,		
plain		
	709-183	1



Applicaton example:
Cover (type 1) with safety warning and lead seals.



❶ Mounting screw – prevents the cover carrier from being moved on the rail.
❷ Securing screw – prevents lifting off from rail.



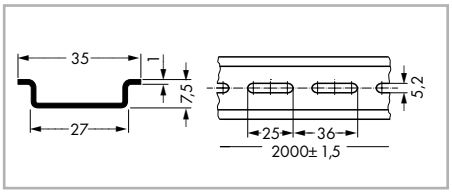
The switchgear cabinet drawer is the ideal place to store small parts that are not routinely used (e.g., instructions, test plug adapters, jumpers, spare fuses).

Carrier Rails
Angled Support Brackets
210 Series

Carrier rail, 35 x 7.5 mm,
1 mm thick,
per IEC 60715,
steel, zinc-plated,
I_N 76 A (reference length of 1 m)



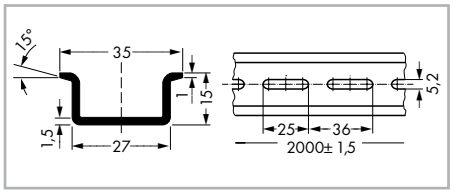
Length	Item No.	Pack. Unit
Steel carrier rail, 35 x 7.5 mm, 1 mm thick, unslotted,		
2 m long	**210-113**	10
Steel carrier rail, 35 x 7.5 mm, 1 mm thick, slotted,		
2 m long	**210-112**	10



Carrier rail, 35 x 15 mm,
1.5 / 2.3 mm thick,
per IEC 60715,
steel, zinc-plated,
I_N 125 A (reference length of 1 m)



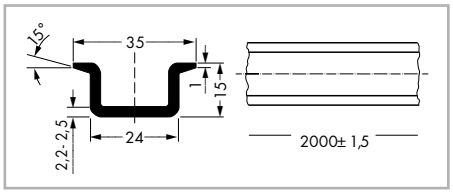
Length	Item No.	Pack. Unit
Steel carrier rail, 35 x 15 mm, 1.5 mm thick, unslotted,		
2 m long	**210-114**	10
Steel carrier rail, 35 x 15 mm, 1.5 mm thick, slotted,		
2 m long	**210-197**	10
Steel carrier rail, 35 x 15 mm, 2.3 mm thick, unslotted,		
2 m long	**210-118**	10



Carrier rail, 35 x 15 mm,
2.3 mm thick,
per IEC 60715,
copper, unplated
I_N 309 A (reference length of 1 m)



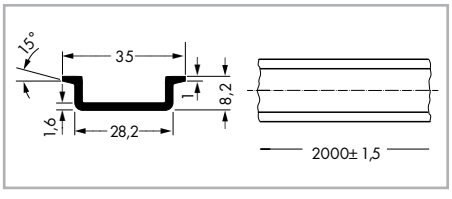
Length	Item No.	Pack. Unit
Copper carrier rail, 35 x 15 mm,		
2.3 mm thick, unslotted,		
2 m long	**210-198**	10



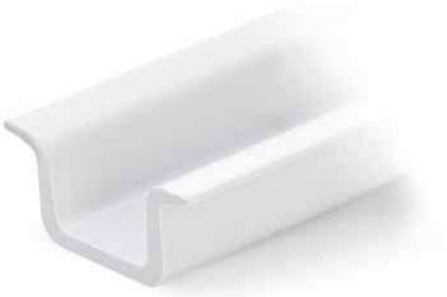
Carrier rail, 35 x 7.5 mm,
1.5 mm thick,
per IEC 60715,
aluminum, unplated,
I_N 76 A (reference length of 1 m)



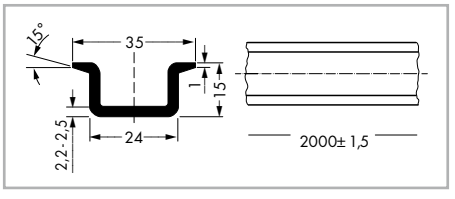
Length	Item No.	Pack. Unit
Aluminum carrier rail, 35 x 7.5 mm, 1.5 mm thick, unslotted,		
2 m long	**210-196**	10



Carrier rail, 35 x 15 mm,
2.3 mm thick,
per EN 60715,
PA6-GV30-V0 plastic

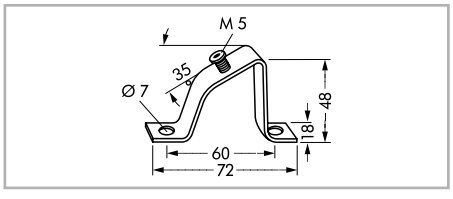


Length	Item No.	Pack. Unit
Plastic carrier rail, 35 x 15 mm,		
2.3 mm thick, unslotted,		
2 m long	**210-509**	1
Not suited for use with ground terminal blocks!		



Accessories

	Item No.	Pack. Unit
Angled support bracket, without screw		
	**210-148**	10
Screw M 5 x 8, for angled support bracket		
	**210-149**	100 (5x20)
Rail end cap, for DIN-35 rail (7.5 mm high)		
 gray	**210-109**	50 (2x25)



11

Operating Tools
209 / 210 / 279 / 280 / 282 Series

Operating tools, per DIN 5264, with a partially insulated shaft, ideal for operating WAGO terminal blocks



Item No.	Pack. Unit
Operating tool with a partially insulated shaft,	
type 1, (2.5 x 0.4) mm blade,	
suitable for 218, 233, 234, 235, 250, 253, 279, 726,	
727, 733, 734, 735, 750, 752, 753, 770, 2000, 2001,	
2020 Series	
210-719	1
Operating tool with a partially insulated shaft,	
type 2, (3.5 x 0.5) mm blade,	
suitable for 231, 232, 236, 255, 256, 257, 260, 261,	
262, 264, 270, 280, 281, 290, 721, 722, 736, 737,	
738, 742, 745, 775, 776, 777, 769, 780, 781, 804,	
869, 870, 880, 2002, 2003, 2004, 2005, 2022 Series	
210-720	1
Operating tool with a partially insulated shaft,	
type 3, (5.5 x 0.8) mm blade,	
suitable for 282, 283, 284, 285, 745, 782, 783, 784,	
785, 2006, 2010, 2016 Series	
210-721	1
Set of operating tools with a partially insulated shaft,	
type 1, (2.5 x 0.4) mm blade,	
type 2, (3.5 x 0.5) mm blade,	
type 3, (5.5 x 0.8) mm blade	
210-722	1

Insulated multipole operating tools for front-entry terminal blocks



Item No.		Pack. Unit
Operating tool, insulated,		
suitable for 279 Series		
1-pole	**209-129**	1
2-pole	**279-432**	1
3-pole	**279-433**	1
10-pole	**279-440**	1
suitable for 264*, 280, 281** Series		
1-pole	**209-130**	1
2-pole	**280-432**	1
3-pole	**280-433**	1
4-pole	**280-434**	1
5-pole	**280-435**	1
6-pole	**280-436**	1
7-pole	**280-437**	1
8-pole	**280-438**	1
9-pole	**280-439**	1
10-pole	**280-440**	1
suitable for 281 Series		
5-pole	**281-440**	1
*only 1- and 2-pole		
**only up to 3-pole		

Short operating tools, per DIN 5264, with a partially insulated shaft, ideal for operating WAGO terminal blocks

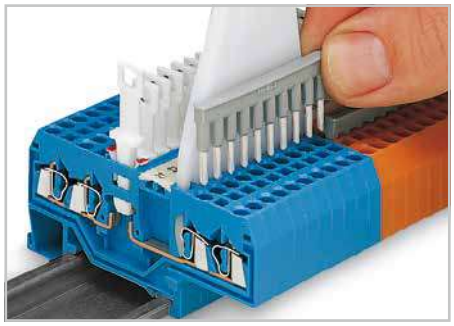


Item No.	Pack. Unit
Operating tool, (2.5 x 0.4) mm blade,	
suitable for 218, 233, 234, 235, 250, 253, 279, 726,	
727, 733, 734, 735, 750, 752, 753, 770, 2000,	
2001, 2020, 2734 Series	
210-647	1
Operating tool, angled, (2.5 x 0.4) mm blade,	
suitable for 279, 2000, 2001, 2020 Series	
210-648	1
Operating tool, (3.5 x 0.5) mm blade,	
suitable for 231, 232, 236, 255, 256, 257, 264, 280,	
281, 721, 722, 736, 737, 738, 742, 745, 804, 869,	
2002, 2004, 2022 Series	
210-657	1
Operating tool, angled, (3.5 x 0.5) mm blade,	
suitable for 231, 232, 236, 255, 256, 257, 260, 261,	
262, 264, 280, 281, 721, 722, 736, 737, 738, 742,	
745, 804, 869, 870, 880, 2002, 2004, 2022 Series	
210-658	1

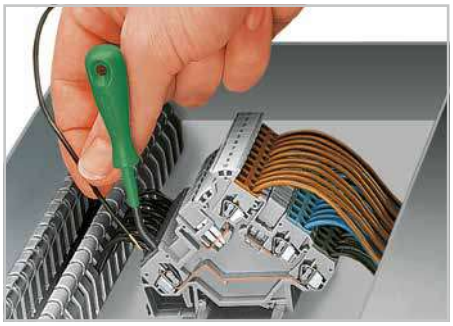
Application notes:



Set of operating tools in a box



Commoning front-entry disconnect terminal blocks via comb-style jumper bar using a 10-pole operating tool.



The operating tools with blade dimensions per DIN 5264 are ideal for operating 280 Series Front-Entry Sensor/ Actuator Terminal Blocks.

Operating Tools
210 / 285 / 2009 Series

Operating tools for TOPJOB® S Installation Terminal Blocks



Item No.	Pack. Unit
Operating tool,	
(2.5 x 0.4) mm and (3.5 x 0.5) mm blades,	
for TOPJOB® S Installation Terminal Blocks	
2009-309	1
Operating tool,	
(3.5 x 0.5) mm and (5.5 x 0.8) mm blades,	
for TOPJOB® S Installation Terminal Blocks	
2009-310	1

T-wrenches with a partially insulated shaft for POWER CAGE CLAMP



Item No.	Pack. Unit
T-wrench with a partially insulated shaft	
285-172	1
T-wrench with a partially insulated shaft and accidental rotation protection	
285-173	1

Operating pliers

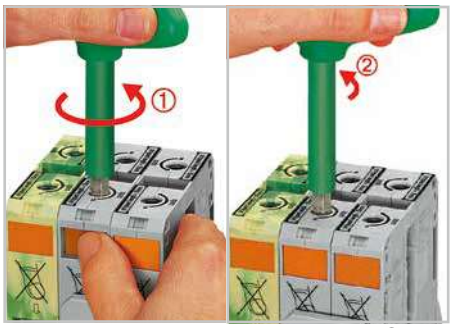


Item No.	Pack. Unit
Operating pliers,	
for side-entry rail-mounted terminal blocks	
for 279, 280 Series	
210-143	1
for 281, 282, 283, 284 Series	
210-141	1

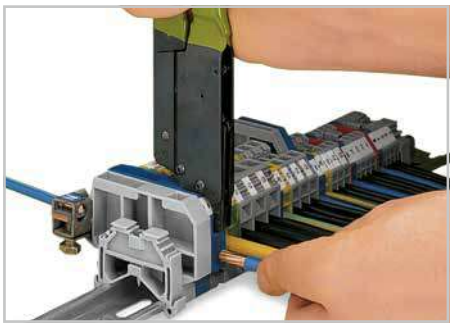
Application notes:



Open the clamping unit using an operating tool.



Rotate the T-wrench counter-clockwise to the stop ①. Next, push in the orange locking tab. The clamp is locked open for hands-free wiring. Insert stripped conductor into the clamping unit. Hold this position.
Unlock the locking tab with a short counter-clockwise turn ② of the T-wrench to securely terminate the conductor.



The operating pliers are placed into the upper operating slot of the side-entry terminal block and the clamp is hooked into the lateral operating slot. The contact is fully opened by pressing the handles together until they engage.
Insert stripped conductor until it hits backstop.

Operating Tools for *MCS* MIDI
231 / 233 / 236 / 733 / 734 / 769 Series

Operating tools	Operating levers	Operating tools
for factory wiring of PCB terminal strips	for male and female connectors equipped with CAGE CLAMP®	for male and female connectors equipped with CAGE CLAMP®

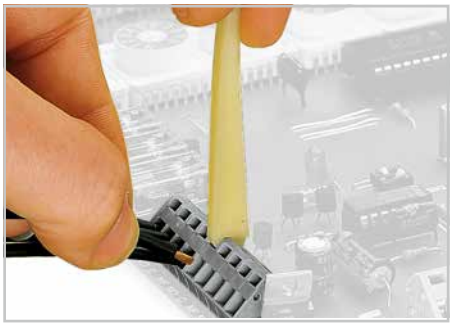


Color	Item No.	Pack. Unit
Operating tool,		
for 233, 733, 2060 Series		
metal, partially insulated	**233-335** 1	1
insulated	**233-332** 2	25
insulated	**233-331** 3	25
for 236 Series		
insulated	**236-332** 4	400
metal	**236-335** 5	1

Color	Item No.	Pack. Unit
Operating lever,		
for 231, 232, 721, 722, 723, 731, 732 Series		
	231-131 6	100
	231-291 7	100
for 734 Series		
	734-230 8	100
	734-191 9	100
for 733 Series		
	733-130 10	100
	733-191 11	100
for 769 Series		
	769-434 12	2000

Color	Item No.	Pack. Unit
Operating tool,		
for 231, 232, 721, 722, 723, 731, 732 Series		
	231-159 13	100
	231-231 14	100
for 734 Series		
	734-190 15	100
	734-231 16	100

Application notes:



Conductor termination via operating tool



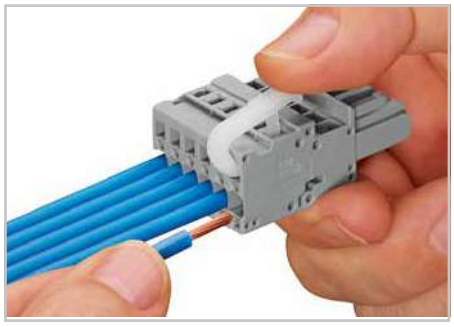
Conductor termination via operating lever



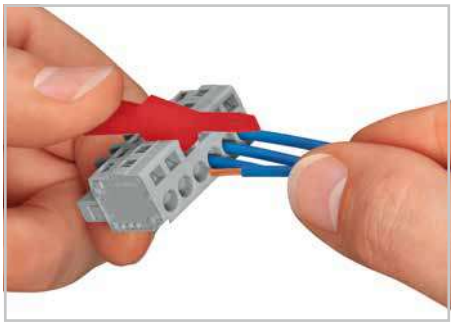
Conductor termination parallel to CAGE CLAMP® actuation



Conductor termination via operating tool



Conductor termination via operating lever

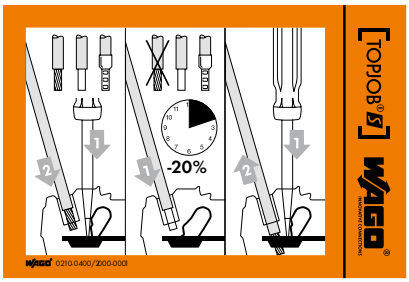


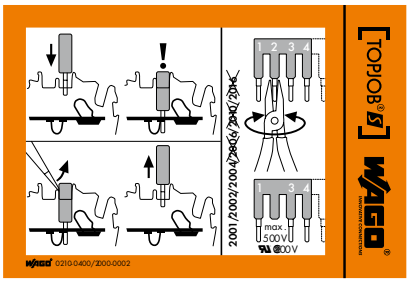
Conductor termination perpendicular to CAGE CLAMP® actuation

Operating Tools, Stickers for Operating Instructions
210 Series

Operating tools	Stickers for operating instructions	Stickers for operating instructions
for male and female connectors equipped with CAGE CLAMP®		





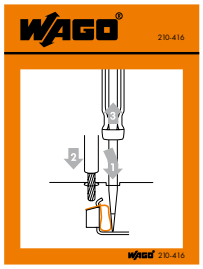


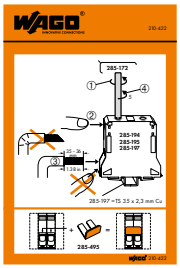
Color	Item No.	Pack. Unit
Operating tools,		
2.5/3.5 mm and 3.81 mm pin spacing,		
for MCS MICRO		
yellow	**210-251**	1
5/5.08 mm and 7.5/7.62 mm pin spacing,		
for MCS MIDI		
red	**210-250**	1

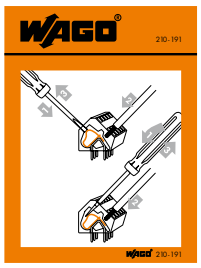
Item No.	Pack. Unit
Stickers for operating instructions,	
for TOPJOB® S Rail-Mounted Terminal Blocks	
210-400/2000-001	100

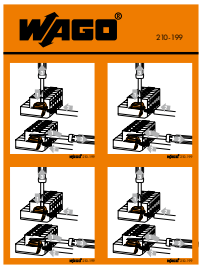
Item No.	Pack. Unit
Stickers for operating instructions,	
for TOPJOB® S Jumpers	
210-400/2000-002	100







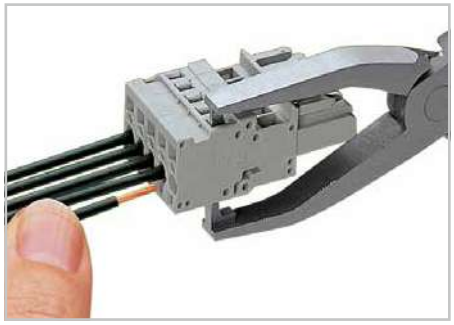




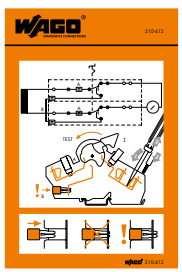
Color	Item No.	Pack. Unit
Operating tool,		
for X-COM®-SYSTEM 769 Series Male and Female Connectors		
red	**210-490**	1

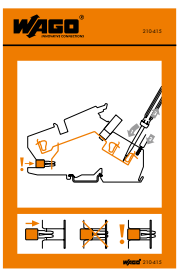
Item No.	Pack. Unit
Stickers for operating instructions,	
for CAGE CLAMP®, universal	
210-416	100
Stickers for operating instructions,	
for 95 mm² high-current terminal blocks, 285 Series	
210-422	100

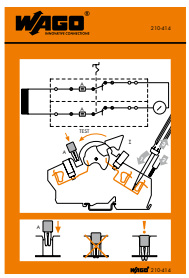
Item No.	Pack. Unit
Stickers for operating instructions,	
for PCB terminal blocks	
236 Series **210-191**	100
736/737/738 Series **210-406**	100
Stickers for operating instructions,	
for MCS with CAGE CLAMP®	
210-199	100

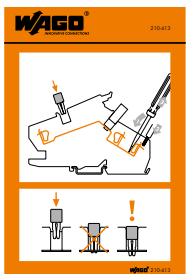


Conductor termination via operating tool









Item No.	Pack. Unit
Stickers for operating instructions,	
for 282-870 Disconnect/Test Terminal Block	
(current transformer)	
210-412	100
Stickers for operating instructions,	
for 282-865 Through Terminal Block	
(current transformer)	
210-415	100

Item No.	Pack. Unit
Stickers for operating instructions,	
for 282-860 Disconnect/Test Terminal Block	
(voltage transformer)	
210-414	100
Stickers for operating instructions,	
for 282-866 Through Terminal Block (voltage transformer)	
210-413	100

11

Cable Cutter
Cable Strippers
206 Series

Cable cutter per VDE	Cable stripper for round cables	Cable stripper for round cables
up to 35 mm²	2.5 ... 11 mm Ø	4.5 ... 45 mm Ø







Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Cable cutter, for copper or aluminum conductors up to 35 mm²		**Cable stripper,** for round cables with 2.5 ... 11 mm outer diameter		**Cable stripper,** for round cables with 4.5 ... 45 mm outer diameter	
206-118	1	**206-171**	1	**206-174**	1

Accessories, 206 Series

		Replacement blade, for 2.5 ... 11 mm Ø		**Replacement blade,** for 4.5 ... 45 mm Ø	
		 **206-170**	1	 **206-173**	1

Application notes:



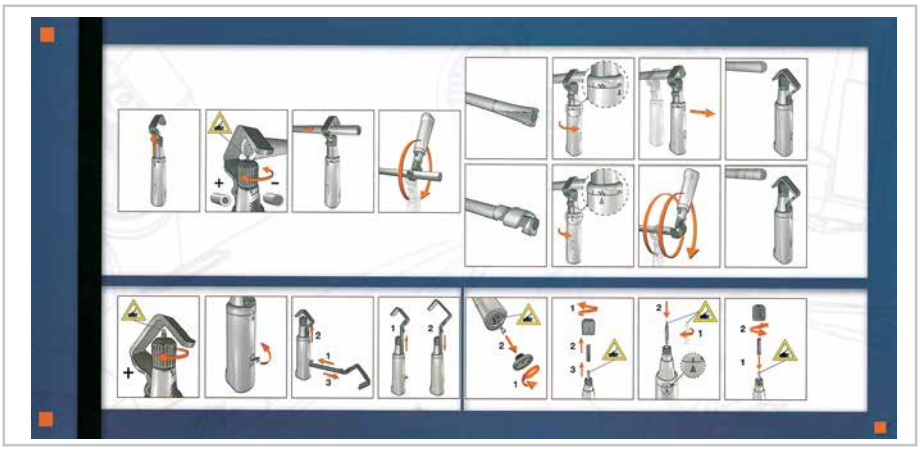
Cutting a cable.

206-171 Cable Stripper
- 10-position adjustment wheel ensures consistent stripping results
- Fine adjustability via 10-position blade cutting depth adjustment
- Strips the sheath from multi-core and fiber optic cables up to 11 mm diameter
- Safe and easy to use through closed stripping cavity

206-174 Cable Stripper
- Safe and easy to use: three locking positions for circular, longitudinal and spiral cuts
- High cable stripping capacity of up to 45 mm diameter
- Ergonomic design features rests for thumb, index and pinky fingers to ease raising of the cable retention hook
- Replacement blades can be stored within the tool's handle



Operating instructions for 206-171 Cable Stripper



Operating instructions for 206-174 Cable Stripper

Wire Strippers
206 Series

"Quickstrip 10" wire stripper	"Quickstrip 16" wire stripper
0.02 ... 10 mm² "f-st"	4 ... 16 mm²





Item No.	Pack. Unit	Item No.	Pack. Unit
"Quickstrip 10" wire stripper, 0.02 ... 10 mm² "f-st" (6 mm² "s") Cutter for conductors up to 10 mm² "f-st" (1.5 mm² "s")		**"Quickstrip 16" wire stripper,** 4 ... 16 mm² Cutter for conductors up to 10 mm² "f-st" (1.5 mm² "s")	
206-124	1	**206-125**	1



Stripping a conductor.

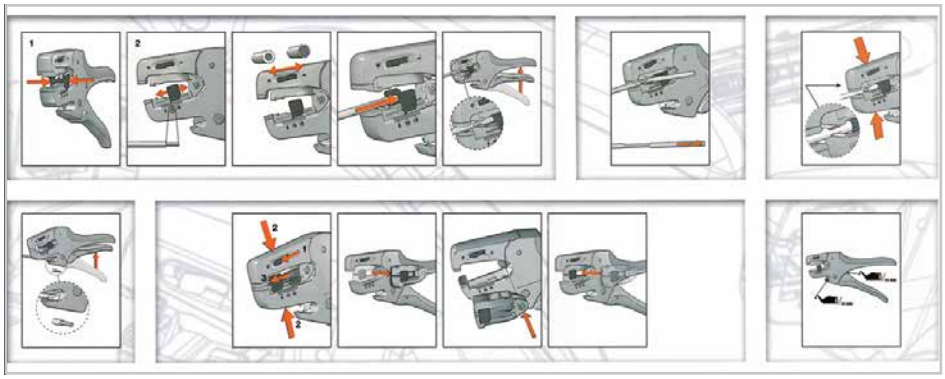
Accessories, 206 Series

"Standard" blade cassette, 0.02 ... 10 mm²		**"Standard" blade cassette,** 4 ... 16 mm²	
 **206-126**	1	 **206-128**	1
"V" blade cassette, 0.1 ... 4 mm² for PTFE			
 **206-127**	1		



Cutting a conductor.

Application notes:



Operating instructions for wire strippers

11

Crimping Tools
206 Series

"Variocrimp 4" crimping tool
0.25 … 4 mm²

"Variocrimp 16" crimping tool
6 … 16 mm²

Crimping Tool 25,
10 mm², 16 mm² and 25 mm²

Crimping Tool 50,
35 mm² and 50 mm²





Item No.	Pack. Unit
"Variocrimp 4" crimping tool,	
for insulated and uninsulated ferrules,	
crimping range: 0.25 … 4 mm²	
206-204	1
"Variocrimp 16" crimping tool,	
for insulated and uninsulated ferrules,	
crimping range: 6 … 16 mm²	
206-216	1

Item No.	Pack. Unit
Crimping Tool 25,	
for insulated and uninsulated ferrules,	
crimping range: 10 mm², 16 mm² and 25 mm²	
206-225	1
Crimping Tool 50,	
for insulated and uninsulated ferrules,	
crimping range: 35 mm² and 50 mm²	
206-250	1

What is a "gas-tight" connection?

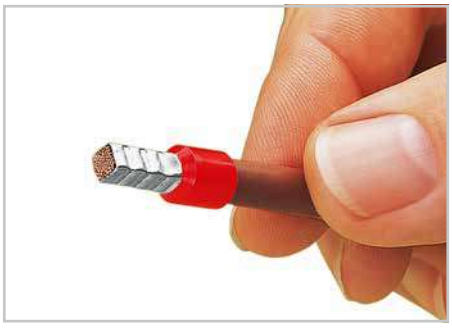
In a gas-tight connection, the conductor and the ferrule are compressed, eliminating all spaces. Under normal atmospheric conditions, neither a liquid nor gaseous medium can penetrate the crimped connection. Oxidation between crimped single conductors is prevented, virtually eliminating the possibility of any increase in the crimped connection's resistance. In some exceptional cases, minute, isolated spaces may be present. However, these instances can be considered as closed off due to the twisted conductor.
Inadequate crimping can allow the conductor to be pulled out of the connection. Hollow spaces also remain, permitting oxidation formation and leading to an increase in contact resistance.
Elevated resistance is detrimental for both signal transmission (signal flow is damped) and power transmission, resulting in power loss and contact heating (risk of fire).
Crimping tools with built-in ratchets are recommended (e.g., **WAGO Crimping Tools**). These tools only open after the crimping process has been fully completed. Space-saving crimping from all four sides is ideal for spring clamp termination.
Ferruled conductor sizes specified for WAGO products are based on this crimping method.

Application notes:



Insert ferruled conductor into crimping station.
Squeeze handles until ratchet mechanism is released.





A perfect gas-tight crimp – both electrically and mechanically reliable

- The built-in crimping pressure control of "Variocrimp 4" automatically adjusts the crimping force to the conductor cross-section. Select the wire gauge on "Variocrimp 16" before crimping.
- Only one crimping station is needed to handle the specified conductor sizes
- Uniform, compact crimping on all four sides for high conductor retention
- No need to center the conductor into the ferrule
- Conductor and ferrule insertion possible from both sides (for left- and right-handers)
- Built-in ratchet mechanism ensures gas-tight crimp connection
- Crimping tools open automatically after crimping operation is complete
- Comfortable handles for operator

Conductor Size (mm²)	Conductor Retention Force ≥ … N
0.25	30
0.5	50
0.75	60
1.0	70
1.5	80
2.5	100
4	120
6	160
10	180
16	200
25	270
35	380
50	470

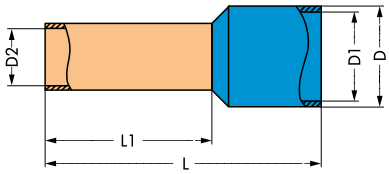
All crimping tools are factory-calibrated.
We recommend that you periodically check to see if the crimping tool functions as expected after approximately 3,000 crimps.
The accompanying table allows you to check the crimping quality.
For additional information on care and maintenance, please refer to the instruction leaflet.

Ferrules
216 Series

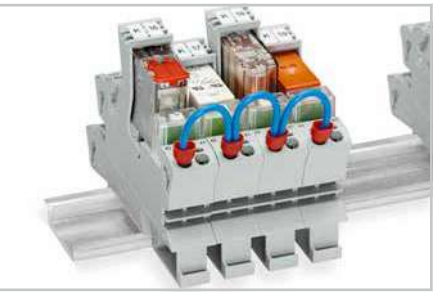
Sleeve for mm²	AWG	Color	Strip Length mm	L	L1	D mm	D1	D2	Item No.	Pack. Unit
Insulated ferrules, extra long, for TOBJOB® S Terminal Blocks										
0.5	22		12.0	16.0	10.0	3.1	2.6	1.0	**216-241**	1000
0.75	20		12.0	16.0	10.0	3.3	2.8	1.2	**216-242**	1000
0.75	20		14.0	18.0	12.0	3.3	2.8	1.2	**216-262**	1000
1.0	18		12.0	16.0	10.0	3.5	3.0	1.4	**216-243**	1000
1.0	18		14.0	18.0	12.0	3.5	3.0	1.4	**216-263**	1000
1.5	16		12.0	16.0	10.0	4.0	3.5	1.7	**216-244**	1000
1.5	16		14.0	18.0	12.0	4.0	3.5	1.7	**216-264**	1000
1.5	16		20.0	24.0	18.0	4.0	3.5	1.7	**216-284**	1000
2.5	14		12.0	17.0	10.0	4.7	4.2	2.2	**216-246**	1000
2.5	14		14.0	19.0	12.0	4.7	4.2	2.2	**216-266**	1000
2.5	14		20.0	25.0	18.0	4.7	4.2	2.2	**216-286**	1000
4.0	12		14.0	20.0	12.0	5.4	4.8	2.8	**216-267**	500
4.0	12		20.0	26.0	18.0	5.4	4.8	2.8	**216-287**	500
6.0	10		14.0	20.0	12.0	6.9	6.3	3.5	**216-208**	500
6.0	10		20.0	26.0	18.0	6.9	6.3	3.5	**216-288**	500
10.0	8		20.0	28.0	18.0	8.4	7.6	4.5	**216-289**	500
16.0	6		23.0	28.0	18.0	9.6	8.8	5.8	**216-210**	500
Insulated ferrules, in standard length										
0.25	24		7.5	10.5	6.0	2.5	2.0	0.8	**216-321**	1000
0.25	24		9.5	12.5	8.0	2.5	2.0	0.8	**216-301**	1000
0.35	24		7.5	10.5	6.0	2.5	2.0	0.8	**216-322**	1000
0.34	24		9.5	12.5	8.0	2.5	2.0	0.8	**216-302**	1000
0.5	22		7.5	11.5	6.0	3.0	2.5	1.1	**216-221**	1000
0.5	22		9.5	13.5	8.0	3.0	2.5	1.1	**216-201**	1000
0.75	20		8.0	12.0	6.0	3.3	2.8	1.3	**216-222**	1000
0.75	20		10.0	14.0	8.0	3.3	2.8	1.3	**216-202**	1000
1.0	18		8.0	12.0	6.0	3.6	3.0	1.5	**216-223**	1000
1.0	18		10.0	14.0	8.0	3.6	3.0	1.5	**216-203**	1000
1.5	16		8.0	12.0	6.0	4.0	3.4	1.8	**216-224**	1000
1.5	16		10.0	14.0	8.0	4.0	3.4	1.8	**216-204**	1000
2.08	14		10.0	14.5	8.0	4.2	3.6	2.05	**216-205**	1000
2.5	14		10.0	15.0	8.0	4.8	4.2	2.3	**216-206**	1000
4.0	12		12.0	16.8	9.5	5.4	4.8	2.9	**216-207**	1000
6.0	10		14.0	20.0	12.0	6.8	6.2	3.5	**216-208**	100
10.0	8		16.0	21.0	12.0	8.1	7.5	4.6	**216-209**	100
16.0	6		23.0	28.0	18.0	9.6	8.8	5.8	**216-210**	100
Insulated twin ferrules, extra long, for TOBJOB® S Terminal Blocks										
2 x 0.5	2 x 20		10.0	16.4	10.0	3.5x2.0	2.9x1.4	1.4	**216-530**	500
2 x 1.0	2 x 18		12.0	19.2	12.0	5.8x3.2	5.2x2.6	2.0	**216-542**	500
2 x 1.5	2 x 16		12.0	20.0	12.0	6.5x3.6	5.9x3.0	2.2	**216-543**	500
2 x 2.5	2 x 14		12.0	21.0	12.0	8.0x4.5	7.2x3.7	2.8	**216-545**	500
2 x 4.0	2 x 12		12.0	22.0	12.0	9.0x5.2	8.0x4.2	3.5	**216-546**	500
2 x 6.0	2 x 10		12.0	23.0	12.0	11.4x6.2	10.4x5.2	4.5	**216-547**	500
Uninsulated ferrules, in standard length										
0.25	24		5.0	5.0		1.7		0.75	**216-151**	1000
0.25	24		7.0	7.0		1.7		0.75	**216-131**	1000
0.34	24		5.0	5.0		1.7		0.85	**216-152**	1000
0.34	24		7.0	7.0		1.7		0.85	**216-132**	1000
0.5	22		6.0	6.0		2.1		1.0	**216-121**	1000
0.5	22		8.0	8.0		2.1		1.0	**216-101**	1000
0.75	20		6.0	6.0		2.3		1.2	**216-122**	1000
0.75	20		8.0	8.0		2.3		1.2	**216-102**	1000
1.0	18		6.0	6.0		2.5		1.4	**216-123**	1000
1.0	18		8.0	8.0		2.5		1.4	**216-103**	1000
1.5	16		6.0	6.0		2.8		1.7	**216-124**	1000
1.5	16		8.0	8.0		2.8		1.7	**216-104**	1000
2.5	14		10.0	10.0		3.4		2.2	**216-106**	1000
4.0	12		10.0	10.0		4.0		2.8	**216-107**	1000
6.0	10		12.0	12.0		4.7		3.5	**216-108**	250
10.0	8		12.0	12.0		5.8		4.5	**216-109**	250
16.0	6		12.0	15.0		7.5		5.8	**216-110**	250



Insulated ferrules



For letters with the corresponding dimensions, see table opposite.

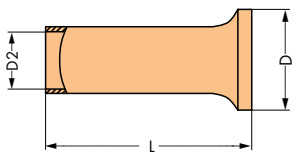


Wire bridge with twin ferrules

Uninsulated ferrules



Uninsulated ferrules



11

Test and Measurement Devices
206 Series

Voltage tester	Voltage tester	Voltage tester
Profi III LED+	Profi III LCD+	Testboy







Item No.	Pack. Unit
Profi III LED+,	
2-pole voltage tester with LED display,	
removable test probes (4 mm Ø)	
Measurement range: 6 ... 1000 VAC	
6 ... 1,400 VDC	
Protection class: IP65	
Resistance measurement: no	
Frequency measurement: no	
Data hold function: no	
206-806	1

Item No.	Pack. Unit
Profi III LCD+,	
2-pole voltage tester with LCD display,	
removable test probes (4 mm Ø)	
Measurement range: 3 ... 1,000 VAC TRMS	
4 ... 1,400 VDC	
Protection class: IP65	
Resistance measurement: 1 ... 1999 Ω	
Frequency measurement: 0 ... 1000 Hz	
Data hold function: yes	
206-807	1

Item No.	Pack. Unit
Testboy,	
non-contact voltage tester,	
with integrated flashlight	
Voltage range: 12 ... 1,000 VAC	
206-804	1

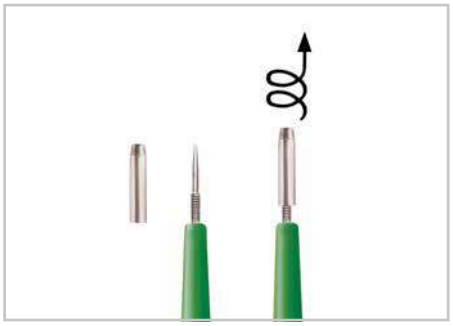
Accessories, 206 Series

Replacement test probes, 4 mm Ø (2 probes)		
	**206-808**	1

Replacement test probes, 4 mm Ø (2 probes)		
	**206-808**	1



Additional Profi III LED+ features:
- Automatic measurement range selection
- Single-pole phase testing AC >100 V
- Two-pole sequence testing (R and L)
- Continuity testing
- FI/RCD testing (30 mA) via buttons
- One-hand operation for SCHUKO® and CEE sockets
- LED torch lamp function (white)
- CAT IV 1,000 V
- TÜV/GS tested and approved
- IEC/EN 61243-3 (DIN VDE 0682-401)





Additional Profi III LCD+ features:
- Automatic measurement range selection
- Single-pole phase testing AC >100 V
- Two-pole sequence testing (R and L)
- Continuity testing
- FI/RCD testing (30 mA) via buttons
- One-hand operation for SCHUKO® and CEE sockets
- LED torch lamp function (white)
- Automatic backlight
- Auto power-off function (with countdown indicator)
- CAT IV 1,000 V
- TÜV/GS tested and approved
- IEC/EN 61243-3 (DIN VDE 0682-401)

Profi-LED+ and Profi-LCD+
- Improved socket contact via Ø 4 mm test probes
- Removable test probes for small test ports (suitable for all WAGO terminal blocks)



The device reliably detects AC voltage in cables, sockets, fuses, switches, junction boxes and other installations.
The voltage tester detects:
- Live conductors
- Cable breaks
- Blown fuses (in cartridges or holders)
- Defective switches
- Defective lamps

Test and Measurement Devices
206 Series

Digital multimeter	Digital clamp meter	Digital clamp meter
Multi-Tester	Amp-Tester	Clamp-Multi-Tester







Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Multi-Tester,		**Amp-Tester,**		**Clamp-Multi-Tester,**	
digital multimeter with contact-less voltage tester,		digital clamp meter		Digital clamp meter	
Carrying case (included)		True RMS measurement		DC and AC current up to 600 A	
Measurement range: 600 V AC/DC; 10 A AC/DC		Carrying case (included)		True RMS and min./max. value measurement	
Resistance measurement: up to 20 MΩ		Measurement range: 0.01 ... 200 A AC/DC, up to 400 Hz (sinus)		DC and AC voltage up to 600 V	
		Degree of protection: IP44		Manual or automatic measurement range selection	
206-810	1	**206-815**	1	**206-816**	1



Additional Multi-Tester features:
- Contact-less voltage test AC >100 V (optical and acoustical)
- Resistance measurement: up to 20 MΩ
- Acoustical continuity test
- Diode test
- Data hold function
- Auto power-off function
- LED torch lamp function
- CAT IV 600 V
- TÜV/GS tested and approved
- IEC/EN 61010-1 (DIN VDE 0411)



Additional Amp-Tester features:
- AC and DC current measurement
- True RMS measurement
- Data hold function
- Maximum jaw opening: 21 mm Ø
- Compact design for measuring in tight spaces
- Resolution: 0.01 A at 40 A
- Resolution: 0.1 A at 200 A
- Sampling rate: 3 times per second
- Auto power-off function
- CAT III 300 V
- TÜV/GS tested and approved
- IEC/EN 61010-1 (DIN VDE 0411)



Additional Clamp-Multi-Tester fearures:
- Resistance up to 60 MΩ
- Capacitance measurement
- Acoustical continuity test
- Diode test
- Data hold function
- Large LCD with backlight
- LED measuring point lighting
- CAT III 600 V overvoltage protection
- IEC/EN 61010-1 (DIN VDE 0411)
- Includes batteries, measurement leads and carrying bag

Test Plugs, Test Pin, Banana Plugs
210 / 215 / 735 Series

Test plugs	Test pin	Banana plugs for 4 mm Ø sockets
		0.08 … 2.5 mm² | 28 … 14 AWG 42 V I_N 20 A 9 … 11 mm / 0.39 in.



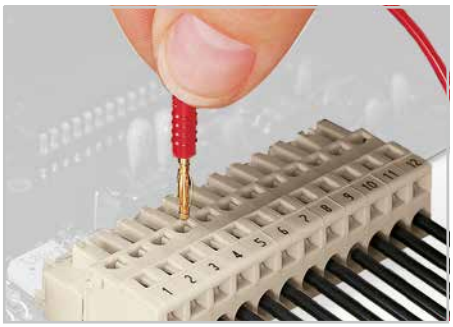




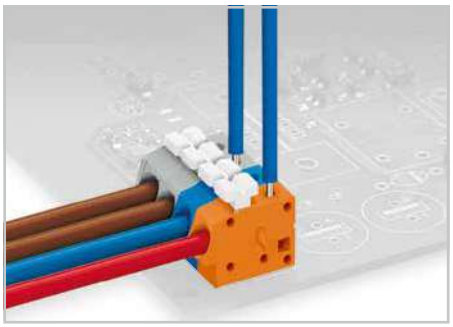
	Item No.	Pack. Unit
Test plug, 2 mm Ø, 500 mm cable length		
red	**210-136**	50
Test plug, 2.3 mm Ø, 500 mm cable length		
yellow	**210-137**	50
Step-down test plug, from 4mm socket to 2mm plug		
red	**210-297**	100

	Item No.	Pack. Unit
Test pin, 1 mm Ø, with solder connection for test cable	**735-500**	1

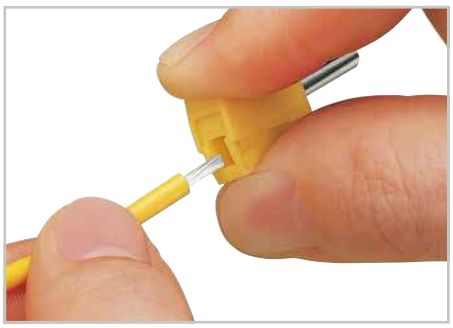
	Item No.	Pack. Unit
Banana plugs, for 4 mm Ø sockets, orange, blue, yellow, white, black, color mixed	**215-111**	50
Banana plugs, for 4 mm Ø sockets,		
orange	**215-211**	50
red	**215-212**	50
black	**215-311**	50
green	**215-411**	50
yellow	**215-511**	50
white	**215-611**	50
blue	**215-711**	50
gray	**215-811**	50
green-yellow	**215-911**	50



Testing with 2 mm Ø test plug.



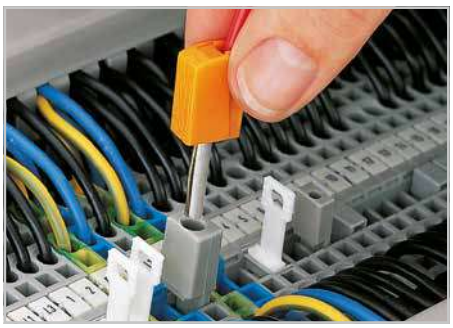
Testing with 1 mm Ø test pin – touch contact.



Conductor termination:
Press button fully and insert stripped conductor into square entry and release.



Testing with step-down test plug.



Banana plug used as test plug –
Testing via 209-170 Test Plug Adapter.

Test Plug Modules
for 236, 736, 737 and 738 Series PCB Terminal Blocks
231 Series

Pin spacing: 5 mm / 0.197 in. Pin spacing: 7.5 mm / 0.295 in.		Pin spacing: 5.08 mm / 0.2 in. Pin spacing: 7.62 mm / 0.3 in.	
0.08 … 2.5 mm² 250 V/ 2.5 kV/ 2 (II)* 0.5 A	28 … 12 AWG	**0.08 … 2.5 mm²** 250 V/ 2.5 kV/ 2 (II)* 0.5 A	28 … 12 AWG
12 … 13 mm / 0.47 … 0.51 in.		**12 … 13 mm / 0.47 … 0.51 in.**	





Color	Item No.	Pack. Unit
Test plug module, contact type A		
with 10 mm contact lug,		
for 236 Series, can be snapped together		
Pin spacing: 5 mm / 0.197 in.		
gray	**231-127**	100
Pin spacing: 7.5 mm / 0.295 in.		
gray	**231-161**	100
Test plug module, contact type A		
with 17 mm contact lug,		
for 280, 736, 737, 738 and 780 Series, can be snapped together		
Pin spacing: 5 mm / 0.197 in.		
gray	**231-126**	100
Test plug module, contact type B		
with 18 mm contact lug,		
for 280, 736, 737, 738 and 780 Series, can be snapped together		
Pin spacing: 5 mm / 0.197 in.		
gray	**231-155**	100
Test plug module, contact type B		
with 18 mm contact lug,		
for 736 and 737 Series, can be snapped together		
Pin spacing: 7.5 mm / 0.295 in.		
gray	**231-456**	100

Color	Item No.	Pack. Unit
Test plug module, contact type A		
with 10 mm contact lug,		
for 236 Series, can be snapped together		
Pin spacing: 5.08 mm / 0.2 in.		
orange	**231-128**	100
Pin spacing: 7.62 mm / 0.3 in.		
orange	**231-125**	100
Test plug module, contact type A		
with 17 mm contact lug,		
for 736, 737 and 738, can be snapped together		
Pin spacing: 5.08 mm / 0.2 in.		
orange	**231-426**	100
Test plug module, contact type B		
with 18 mm contact lug,		
for 736, 737 and 738, can be snapped together		
Pin spacing: 5.08 mm / 0.2 in.		
orange	**231-455**	100

Accessories, 231 Series

End plate		
	**231-100**	200 (2 x 100)

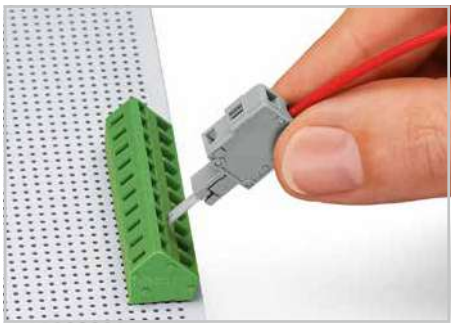
End plate		
	**231-300**	200 (2 x 100)



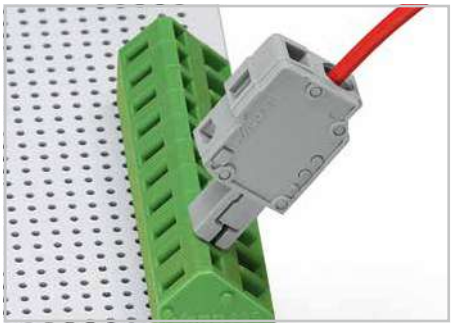
Contact type A
Testing only when unwired.



Contact type B
Testing only when wired –
0.75 … 1.5 mm² "f-st" or 0.5 mm² "sol."



Inserting a test plug module into the operating slot.



Unwired terminal strip with inserted test plug module

*Observe protection against direct contact for 42 V and higher voltages!

International Certifications – Overview

	Abbreviation for Online Search
Underwriters Laboratories USA http://www.ul.com	**UL**
Underwriters Laboratories USA http://www.ul.com	**UL**
Underwriters Laboratories USA http://www.ul.com	**cURus**
Underwriters Laboratories USA http://www.ul.com	**cULus**
Canadian Standards Association Canada http://www.csa.ca	**CSA**
VDE-Gutachten mit Fertigungsüberwachung Germany http://www.vde.de/vde/html/e/home.htm	**VDE**
VDE – Deutscher Verband für Elektrotechnik Germany http://www.vde.de	
VDE – Prüfbericht Germany	
Österreichischer Verband für Elektrotechnik Austria http://www.ove.at	**ÖVE**
Schweizerischer Elektrotechnischer Verein Switzerland http://www.sev.ch/	**SEV**
N.V. tot Keuring van Elektrotechnische Materialien Netherlands http://www.kema.nl	**KEMA**
CENELEC CERTIFICATION AGREEMENT	
N.V. tot Keuring van Elektrotechnische Materialien Netherlands http://www.cenelec.org	**CCA Appr. No. with NL**
Norges Elektriske Materialkontroll Norway http://express.nemko.com	**NEMKO**
Svenska Elektriska Materielkontrollanstalten AB Sweden http://www.semko.com	**SEMKO**

	Abbreviation for Online Search
Danmarks Elektriske Materielkontrol Denmark http://www.demko.dk	**DEMKO**
CENELEC CERTIFICATION AGREEMENT	
Danmarks Elektriske Materielkontrol Denmark http://www.cenelec.org	**CCA Appr. No. with DK**
SETI – FEMKO Sähkötarkastuskeskus Elinspecktionscentralen Finland http://www.seti.fi	
Sähkötarkastuskeskus Elinspecktionscentralen Finland http://www.fimko.com	**FIMKO**
South African Bureau of Standards South Africa http://www.sabs.co.za	**SABS**
RosTesT Russia http://www.rostest.ru	**ROSTEST**
Departamentul Moldovastandard Moldavia http://www.moldova.md/ro/government/oll/D_STAND/en/strcent2.htm	**CSM**
Certificate of Registration Great Britain http://www.astacertification.com	**ASTA**
Rheinisch-Westfälischer Technischer Überwachungsverein e.V. Germany http://www.rwtuv.de	**RWTÜV**
Elektrotechnick ý v ýskumn ý a projektov ý ústav Czech Republic http://www.ezu.cz	**EZU**
Stowarzyszenie Elektrykow Polskich Poland http://www.bbj.pl	**BBJ**
Stowarzyszenie Elektrykow Polskich Poland http://www.sep.com.pl	**SEP**

For complete, up-to-date approval information, visit www.wago.com.

	Abbreviation for Online Search
Centre National d'Etudes des Télécommunications France http://www.lannion.cnet.fr	**CNET**
Laboratoire Central des Industries Electriques France http://www.lcie.fr	LCIE
Fyzikálne Technick´y Zkusební Ustav, Ostrava-Radvanice Czech Republic http://www.ftzu.cz	**FTZU**

Marine Approvals

Germanischer Lloyd Germany http://www.gl-group.com	**GL**
Bureau Veritas France http://www.bureauveritas.fr	**BV**
Lloyd's Register of Shipping Great Britain http://www.lloydsregister.com	**LR**
NV – Det Norske Veritas Norway http://www.dnv.com	**DNV**
Russian Maritime Register of Shipping GUS http://www.rs-head.spb.ru	**RMR**
Polski Rejestr Statków Poland http://www.prs.pl	**PRS**
Korean Register of Shipping Korea http://www.krs.co.kr	**KR**
American Bureau of Shipping USA http://www.eagle.org	**ABS**

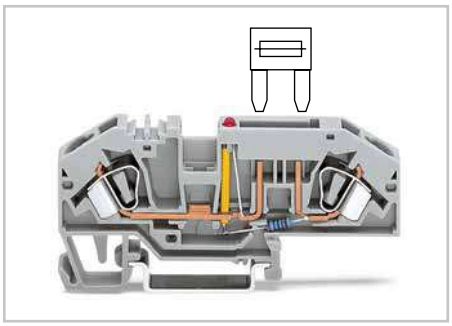
	Abbreviation for Online Search
Robbanásbiztos Villamos Berendezések Hungary http://www.bki.hu	**BKI**
CB – TEST CERTIFICATE India http://www.ul-europe.com	**CB**
CB – TEST CERTIFICATE China http://www.ul-europe.com	**CB**
UL-International Demko A/S Denmark http://www.ul-europe.com	**ENEC**

Ex Approvals

Physikalisch Technische Bundesanstalt Germany Ex e II http://www.ptb.de	**PTB**
Underwriters Laboratories USA http://www.ul.com	**cURus-EX**
N.V. tot Keuring van Elektrotechnische Materialien Netherlands http://www.kemaquality.com	**KEMA-EX**
GOSENERGO-Ex GOSENERGONADZOR Russia	**GOSENERGO-EX**
Fyzikálne Technick ý Zkusební Ústav, Ostrava-Radvanice Czech Republic http://www.ftzu.cz	**FTZU**
Robbanásbiztos Villamos Berendezések Hungary http://www.bki.hu	**BKI-EX**

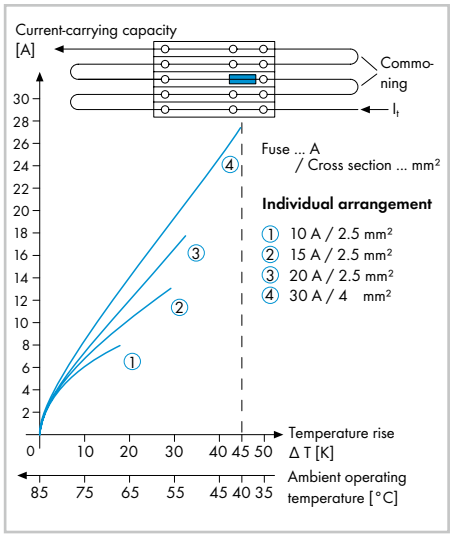
Current-Carrying Capacity Curves
Fuse Terminal Blocks for Mini-Automotive, Blade-Style Fuses

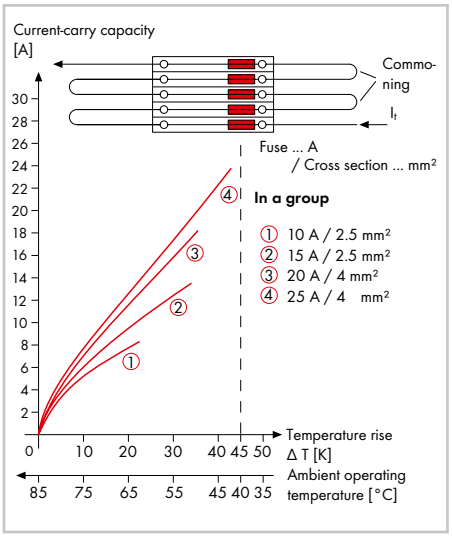
Higher ambient temperatures (T_{amb}) place additional strain on fuse cartridges. Therefore, a reduced rated current according to the following diagrams and tables (see factor F_T) should be accounted for in such applications:



Information from the mini-automotive, blade-type fuse manufacturers

Derating T_{amb} /°C	%	F_T
- 25	14	0.877
- 20	13	0.885
- 15	12	0.893
- 10	11	0.901
- 5	10	0.909
0	9	0.917
5	8	0.926
10	6	0.943
15	4	0.962
20	2	0.980
23	0	1.000
30	- 2	1.020
35	- 4	1.042
40	- 6	1.064
45	- 8	1.087
50	- 10	1.111
55	- 13	1.149
60	- 16	1.190
65	- 19	1.235
70	- 22	1.282



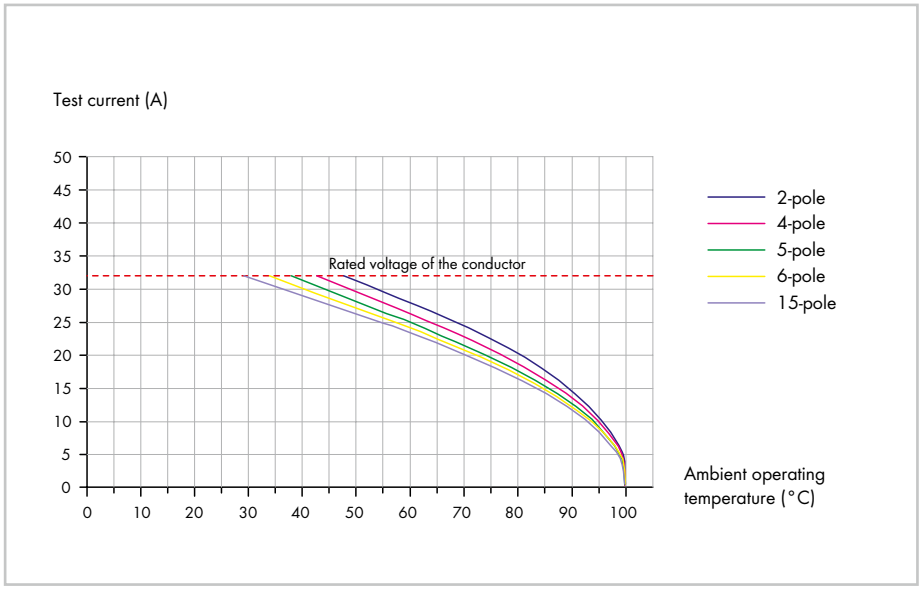


Current-Carrying Capacity Curves for
1-Conductor/1-Pin and 2-Pin Carrier Terminal Blocks and 1-Conductor Female Plugs
X-COM®-SYSTEM

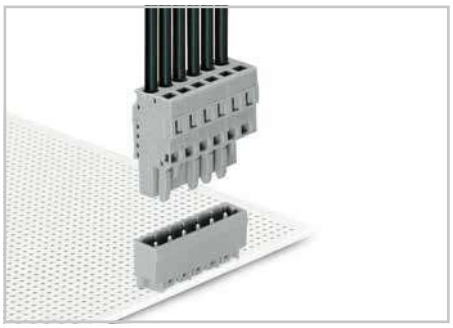


1-Conductor/1-Pin
Carrier Terminal Block: 769-176
Conductor size: 4 mm² (12 AWG)

1-Conductor Female Plugs: 769-102 ... 769-115
Conductor size: 4 mm² (12 AWG)
Conductor loop length: 1 m



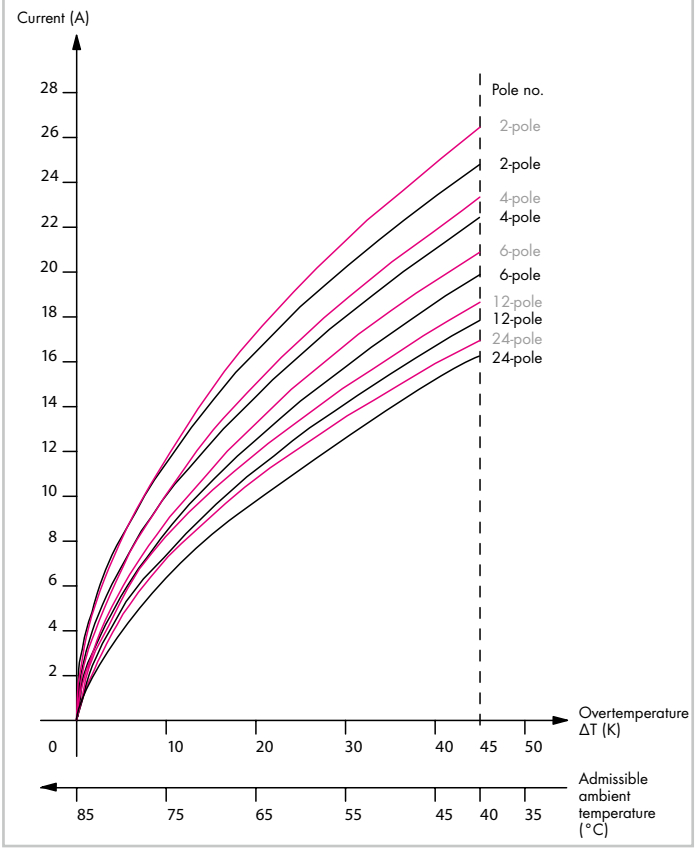
Current-Carrying Capacity Curves for Headers/Connectors with CAGE CLAMP®
MULTI CONNECTION SYSTEM (MCS) – **MIDI**



Male Headers with Solder Pins 1 mm x 1 mm:	231-132/001-000 ... 231-154/001-000
1.2 mm x 1.2 mm:	231-162/001-000 ... 231-184/001-000
Female Connectors:	231-102/026-000 ... 231-124/026-000
Conductor size (2.5 mm² "f-st"):	PCB side commoned with 2.5 mm²
Conductor loop length:	1 m

Additional current-carrying capacity curves upon request.

Male Headers with Straight Solder Pins: 1 mm x 1 mm/1.2 mm x 1.2 mm MIDI
Pin Spacing: 5 mm, 5.08 mm, 7.5 mm and 7.62 mm



Determining Maximum Load

Explanation using the following example:

What load (amps) can a 6-pole connector assembly handle when subjected to an ambient operating temperature of 55 °C?

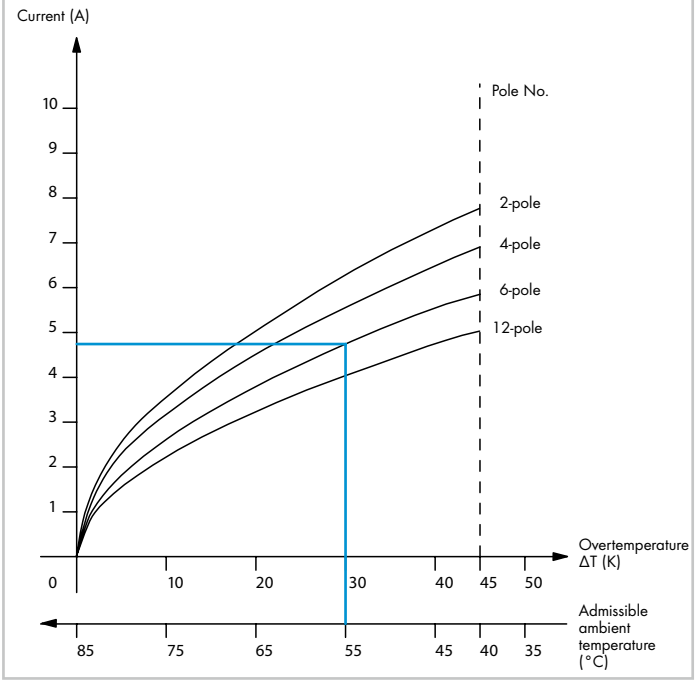
1.) On the bottom axis (x-coordinate = temperature), select the ambient operating temperature for the connector assembly (here 55 °C).

2.) For this temperature, draw a vertical line up to the curve corresponding to the number of poles (here 6-pole).

3.) From the point of intersection, draw a line horizontally to the intersection with the y-axis and read the value of the current.

In this example, all poles of the 6-pole connector assembly can be simultaneously loaded with 4.8 amps at a 55 °C ambient operating temperature.

Example



For additional technical explanations, see Full Line Catalog.

Tests and Testing Procedures per IEC/EN Standards
Electrical Tests

- Insulation Parameters per IEC/EN 60664-1

Table F.4 – Creepage Distances to Avoid Failure due to Tracking

DIN EN 60664-1/VDE 0110, Part 1

Voltage[1] rms	Minimum Creepage Distances								
	Printed Circuits		Pollution Degree						
	Pollution Degree								
	1 All Material Groups	2 All Material Groups except IIIb	1 All Material Groups	2 Material Group I	**2 Material Group II**	2 Material Group III	3 Material Group I	**3 Material Group II**	3 Material Group III[2]
V	mm	mm	mm	mm	mm	mm	mm	mm	mm
10	0.025	0.040	0.080	0.400	0.400	0.400	1.000	1.000	1.000
12.5	0.025	0.040	0.090	0.420	0.420	0.420	1.050	1.050	1.050
16	0.025	0.040	0.100	0.450	0.450	0.450	1.100	1.100	1.100
20	0.025	0.040	0.110	0.480	0.480	0.480	1.200	1.200	1.200
25	0.025	0.040	0.125	0.500	0.500	0.500	1.250	1.250	1.250
32	0.025	0.040	0.14	0.53	0.53	0.53	1.30	1.30	1.30
40	0.025	0.040	0.16	0.56	0.80	1.10	1.40	1.60	1.80
50	0.025	0.040	0.18	0.60	0.85	1.20	1.50	1.70	1.90
63	0.040	0.063	0.20	0.63	0.90	1.25	1.60	1.80	2.00
80	0.063	0.100	0.22	0.67	0.95	1.30	1.70	1.90	2.10
100	0.100	0.160	0.25	0.71	1.00	1.40	1.80	2.00	2.20
125	0.160	0.250	0.28	0.75	1.05	1.50	1.90	2.10	2.40
160	0.250	0.400	0.32	0.80	1.10	1.60	2.00	2.20	2.50
200	0.400	0.630	0.42	1.00	1.40	2.00	2.50	2.80	3.20
250	0.560	1.00	0.56	1.25	1.80	2.50	3.20	3.60	4.00
320	0.75	1.60	0.75	1.60	2.20	3.20	4.00	4.50	5.00
400	1.0	2.0	1.0	2.0	2.8	4.0	5.0	5.6	6.3
500	1.3	2.5	1.3	2.5	3.6	5.0	6.3	7.1	8.0 (7.9)[4]
630	1.8	3.2	1.8	3.2	4.5	6.3	8.0 (7.9)[4]	9.0 (8.4)[4]	10.0 (9.0)[4]
800	2.4	4.0	2.4	4.0	5.6	8.0	10.0 (9.0)[4]	11.0 (9.6)[4]	12.5 (10.2)[4]
1,000	3.2	5.0	3.2	5.0	7.1	10.0	12.5 (10.2)[4]	14.0 (11.2)[4]	16.0 (12.8)[4]
1,250			4.2	6.3	9.0	12.5	16.0 (12.8)[4]	18.0 (14.4)[4]	20.0 (16.0)[4]
1,600			5.6	8.0	11.0	16.0	20.0 (16.0)[4]	22.0 (17.6)[4]	25.0 (20.0)[4]
2,000			7.5	10.0	14.0	20.0	25.0 (20.0)[4]	28.0 (22.4)[4]	32.0 (25.6)[4]
2,500			10.0	12.5	18.0	25.0	32.0 (25.6)[4]	36.0 (28.8)[4]	40.0 (32.0)[4]
3,200			12.5	16.0	22.0	32.0	40.0 (32.0)[4]	45.0 (36.0)[4]	50.0 (40.0)[4]
4,000			16.0	20.0	28.0	40.0	50.0 (40.0)[4]	56.0 (44.8)[4]	63.0 (50.4)[4]
5,000			20.0	25.0	36.0	50.0	63.0 (50.4)[4]	71.0 (56.8)[4]	80.0 (64.0)[4]
6,300			25.0	32.0	45.0	63.0	80.0 (64.0)[4]	90.0 (72.0)[4]	100.0 (80.0)[4]
8,000			32.0	40.0	56.0	80.0	100.0 (80)[4]	110.0 (88.0)[4]	125.0 (100.0)[4]
10,000			40.0	50.0	71.0	100.0	125.0 (100.0)[4]	140.0 (112.0)[4]	160.0 (128.0)[4]
12,500			50.0[3]	63.0[3]	90.0[3]	125.0[3]			
16,000			63.0[3]	80.0[3]	110.0[3]	160.0[3]			
20,000			80.0[3]	100.0[3]	140.0[3]	200.0[3]			
25,000			100.0[3]	125.0[3]	180.0[3]	250.0[3]			
32,000			125.0[3]	160.0[3]	220.0[3]	320.0[3]			
40,000			160.0[3]	200.0[3]	280.0[3]	400.0[3]			
50,000			200.0[3]	250.0[3]	360.0[3]	500.0[3]			
63,000			250.0[3]	320.0[3]	450.[3]	600.0[3]			

[1] This voltage is for:
- functional insulation: the working voltage
- basic and supplementary insulation of the circuit energized directly from the mains (see 4.3.2.2.1): for the voltage rationalized through Table F.3a or F.3b, based on the rated voltage of the equipment, or the rated insulation voltage
- basic and supplementary insulation of systems, equipment and internal circuits not energized directly from the mains (see 4.3.2.2.2.): the highest rms voltage which can occur in the system, equipment or internal circuit when supplied at rated voltage and under the most taxing combination of operation conditions within equipment rating

[2] Material group IIIb is not recommended for applications in pollution degree 3 above 630 V.

[3] Provisional data based on extrapolation. Technical committees with other information based on experience may use their dimensions.

[4] The values in brackets shall only be applied for reducing creepage distances if a rib is used (see 5.2.5).

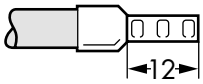
The high degree of accuracy of the creepage distances given in the table does not imply that the measuring accuracy must be of the same quality.

Technical Information and Abbreviations

0.25 … 2.5 (4) mm² ❶ | **22 … 12 AWG**
800 V/8 kV/3 | **600 V, 20 A**
I_N 24 A | **600 V, 20 A**
Terminal block width: 5.2 mm / 0.205 in.
10 … 12 mm / 0.43 in.
❷ Approvals

Pin spacing: 5 mm / 0.197 in.
0.5 … 2.5 mm² "s+f-st" | **20 … 12 AWG "s+f-st"**
250 V/4 kV/3, 16 A | **300 V, 10 A**
500 V/4 kV/2, 16 A
10 … 11 mm / 0.41 in.
❷ Approvals

❶ Conductor range: 0.25 … 4 mm² "s+f-st";
Push-in termination: 0.75 … 4 mm² "s" and 0.75 … 2.5 mm² "insulated ferrule, 12 mm"
(Length of ferrule is only related to the metallic part.)



Pin spacing 5 mm / 0.197 in.: Pin spacing of the terminal block/connector (e.g., PCB terminal blocks and *MULTI CONNECTION SYSTEM*)

0.25 … 2.5 (4) mm² / 22 … 12 AWG: Conductor range (min. … max.), ferrules reduce cross-section to 2.5 mm² (see ❶)

800 V/250 V/500 V: Rated voltage (see Full Line Catalog)

8 kV/4 kV: Rated impulse voltage (see Full Line Catalog)

3/2: Degree of pollution (see Full Line Catalog)

I_N 24 A/16 A: Maximum current

600 V, 20 A : Voltage and current values per UL approval

600 V, 20 A : Voltage and current values per CSA approval

300 V, 10 A: Voltage and current values per applied UL and CSA approvals

Terminal block width 5.2 mm/0.205 in.: Width of modular terminal blocks (e.g., rail-mounted terminal blocks)

10 … 12 mm / 0.43 in.: Strip length (fine-stranded conductor)

10 … 11 mm / 0.41 in.: Strip length (solid conductor)

❷ **Approvals** (Current approvals are available online at: www.wago.com)

Abbreviations

"s": Solid conductor
"st": Stranded conductor
"f-st": Fine-stranded conductor
"s+f-st": Solid and fine-stranded conductors
"sol.": Solid conductor
"f-st": Fine-stranded conductor

AWG: American Wire Gauge
I_N 32 A: Nominal current of 32 A (e.g., for jumpers)
WCB: WAGO Combi Marking System
WMB: WAGO Multi Marking System
WSB: WAGO Quick Marking System

Material Specifications

Insulating Materials:
WAGO primarily uses polyamide (PA 6.6 and PA 4.6) as carriers of current-conducting parts and polycarbonate (PC) as insulating material.
For more than 40 years, these materials have proven themselves in WAGO products and all are approved by certified, third-party agencies.

Contact Materials:
Hard and extra-hard electrolytic copper (ECu), as well as extra-hard copper alloys are the standard materials used for the current-carrying parts of all WAGO products. This material combines excellent conductivity and good chemical resistance without the risk of stress-induced cracking.

Contact Plating:
The special tin layer, which is the standard layer for all current-carrying parts in WAGO products, ensures perfect long-term protection against corrosive substances. Furthermore, these layers provide a gas-tight contact that ensures a durable transition resistance.

Clamping Spring Material:
Every WAGO clamping spring is made of high-quality, accurately tested austenitic chrome nickel steel (CrNi) with high tensile strength, which boasts proven corrosion resistance through long-term usage.
It is resistant to sea spray, city pollutants and industrial emissions (e.g., sulfur dioxide, hydrogen sulfide).

For more technical data, see our Full Line Catalog.

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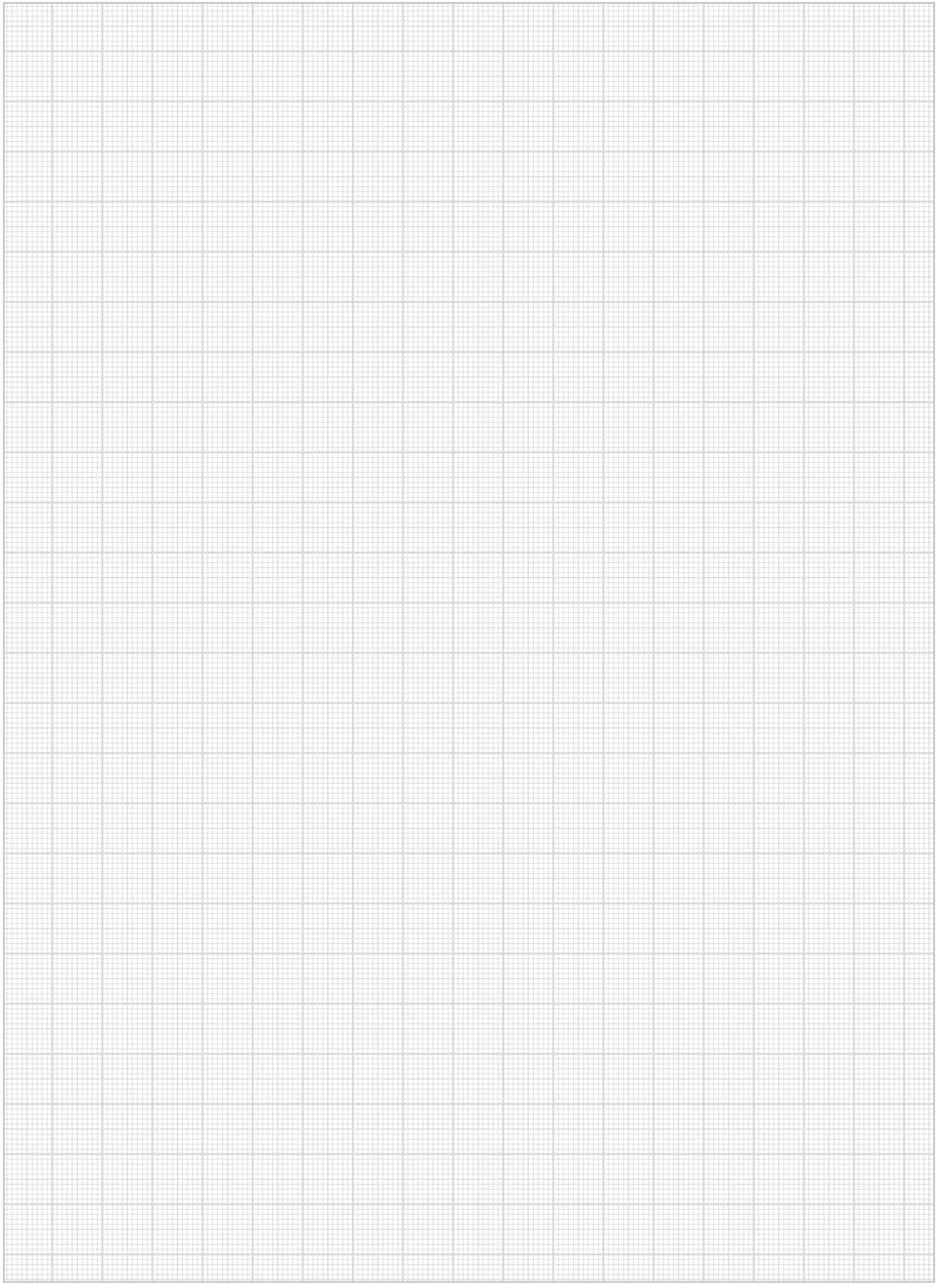
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