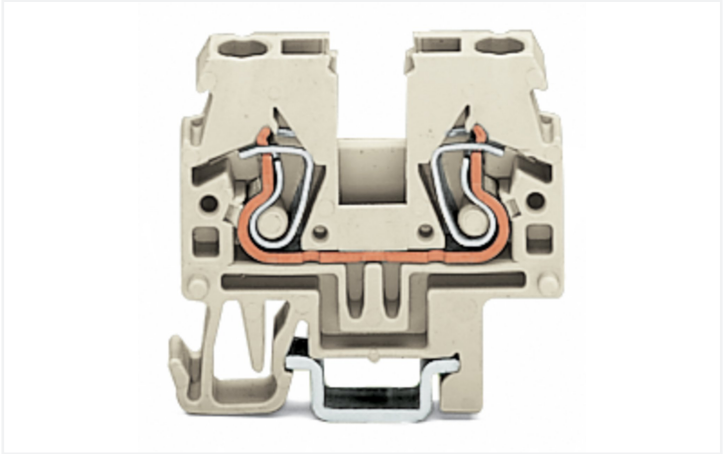
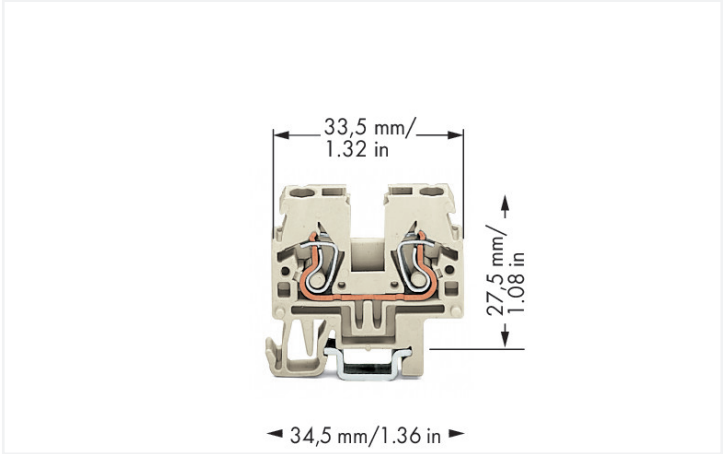


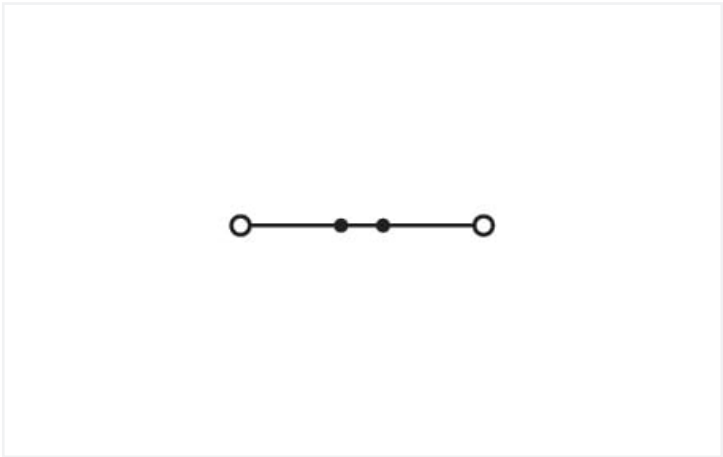
**Data Sheet | Item Number: 870-919**

2-conductor through terminal block; 2.5 mm<sup>2</sup>; suitable for Ex e II applications; side and center marking; for DIN-15 rail; CAGE CLAMP®; 2,50 mm<sup>2</sup>; light gray

<https://www.wago.com/870-919>



Color: ■ light gray



Similar to illustration

**Through terminal block, 870 Series, light gray**

This through terminal block (item number 870-919) is designed to connect conductors quickly and easily. Whether in industrial or building applications, our rail-mount through terminal blocks are the perfect solution to quickly and securely connect electrical conductors. Depending on the version, you can use them for either typical through-wiring or potential distribution. Conductors should only be connected to this through terminal block if their strip length is between 6 mm and 7 mm. This product features conductor terminals and utilizes CAGE CLAMP®. Our CAGE CLAMP® connection provides a convenient and maintenance-free way to connect all types of conductors. You do not need to prepare the conductor in any way, such as crimping ferules. This through terminal block is suitable for conductor cross sections ranging from 0.08 mm<sup>2</sup> to 2.5 mm<sup>2</sup>. It has one level. You can connect a single potential using the two clamping points. The light gray housing is made of polyamide (PA66) for insulation. An operating tool is used to operate this mini rail-mount terminal block. These mini rail-mount terminal blocks are mounted using DIN-15 rails.. Conductors made of copper can be connected via front-entry wiring.

| Notes              |                                  |
|--------------------|----------------------------------|
| Safety Information | Max. insulation diameter: 4.4 mm |

| Electrical data      |  |                  |     |    | Ex information             |   |
|----------------------|--|------------------|-----|----|----------------------------|---|
| Ratings per          |  | IEC/EN 60947-7-1 |     |    | Ex information             |   |
| Overvoltage category |  | III              | III | II | Reference hazardous areas  | See application instructions in section "Knowledge and Downloads – Documentation – Additional Information: Technical Section; Technical Explanations" |
| Pollution degree     |  | 3                | 2   | 2  |                            |   |
| Nominal voltage      |  | -                | -   | -  |                            |   |
| Rated surge voltage  |  | -                | -   | -  |                            |   |
| Rated current        |  | -                | -   | -  | Rated voltage EN (Ex e II) | 440 V   |



| Power Loss   |           |
|--|-----------|
| Power loss, per pole (potential)                             | 0.6437 W  |
| Rated current I <sub>N</sub> for specified power loss        | 22 A      |
| Resistance value for specified, current-dependent power loss | 0.00133 Ω |

| Connection data            |   |   |                                   |
|----------------------------|---|---|-----------------------------------|
| Clamping units             | 2 | Connection 1                                    |                                   |
| Total number of potentials | 1 | Connection technology                           | CAGE CLAMP®                       |
| Number of levels           | 1 | Actuation type                                  | Operating tool                    |
|                            |   | Connectable conductor materials                 | Copper                            |
|                            |   | Solid conductor                                 | 0.08 ... 2.5 mm² / 28 ... 12 AWG  |
|                            |   | Fine-stranded conductor                         | 0.08 ... 4 mm² / 28 ... 12 AWG    |
|                            |   | Fine-stranded conductor; with insulated ferrule | 0.08 ... 1.5 mm² / 28 ... 14 AWG  |
|                            |   | Strip length                                    | 6 ... 7 mm / 0.24 ... 0.28 inches |
|                            |   | Wiring direction                                | Front-entry wiring                |

| Physical data                     |                        |
|-----------------------------------|------------------------|
| Width                             | 5 mm / 0.197 inches    |
| Height                            | 34.5 mm / 1.358 inches |
| Depth from upper-edge of DIN-rail | 26.5 mm / 1.043 inches |

| Mechanical data |                 |
|-----------------|-----------------|
| Design          | horizontal type |
| Mounting type   | DIN-15 rail     |
| Marking level   | Side marking    |

| Material data                      |  |
|------------------------------------|--|
| Note (material data)               | <a href="#">Information on material specifications can be found here</a> |
| Color                              | light gray   |
| Material group                     | I  |
| Insulation material (main housing) | Polyamide (PA66)   |
| Flammability class per UL94        | V0   |
| Fire load                          | 0.069 MJ   |
| Weight                             | 3.9 g  |

| Environmental requirements       |                 |
|----------------------------------|-----------------|
| Processing temperature           | -35 ... +85 °C  |
| Continuous operating temperature | -60 ... +105 °C |



| Commercial data       |  |  |
|-----------------------|--|--|
| Product Group         | 16 (Rail Mounted Terminal Blocks with CCC) |  |
| eCl@ss 10.0           | 27-14-11-20                                |  |
| eCl@ss 9.0            | 27-14-11-20                                |  |
| ETIM 9.0              | EC000897                                   |  |
| ETIM 8.0              | EC000897                                   |  |
| PU (SPU)              | 100 pcs                                    |  |
| Packaging type        | Box  |  |
| Country of origin     | DE   |  |
| GTIN                  | 4044918852395                              |  |
| Customs tariff number | 85369010000                                |  |

| Environmental Product Compliance |                        |  |
|----------------------------------|------------------------|--|
| RoHS Compliance Status           | Compliant,No Exemption |  |

| Approvals / Certificates |  |  |
|--------------------------|--|--|
| General approvals        |  | Declarations of conformity and manufacturer's declarations |



| Approval                                  | Standard | Certificate Name |
|---|----------|------------------|
| cURus<br>UL International Germany<br>GmbH | UL 1059  | E45172           |

| Approval  | Standard | Certificate Name |
|---|----------|------------------|
| ATEX-Attestation of Con-<br>formity<br>WAGO GmbH & Co. KG | -        | -                |

| Approvals for hazardous areas |  |  |
|-------------------------------|--|--|
|-------------------------------|--|--|



| Approval   | Standard    | Certificate Name   |
|--|-------------|--|
| AEx<br>UL International Germany<br>GmbH c/o Physikalisch<br>Technische Bundesanstalt | UL 60079    | E185892 (AEx eb II C resp.<br>Ex eb II C)                            |
| ATEX<br>Physikalisch Technische<br>Bundesanstalt (PTB)                               | EN 60079    | PTB 03 ATEX 1188 U (II 2<br>G Ex eb IIC Gb bzw. I M 2<br>Ex eb I Mb) |
| CCC<br>CNEX  | GB/T 3836.3 | 2020312313000179 (Ex<br>eb IIC Gb, Ex eb I Mb)                       |
| IECEX<br>Physikalisch Technische<br>Bundesanstalt                                    | IEC 60079   | IECEX PTB 04.0018 U (Ex<br>eb IIC Gb resp. Ex eb I Mb)               |
| INMETRO<br>TÜV Rheinland do Brasil<br>Ltda.  | IEC 60079   | TÜV 12.1312 U  |



Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 870-919

Download icon

Documentation

Additional Information

Technical Section

pdf

2246.92 KB

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Bid Text

870-919

19.02.2019

xml

3.62 KB

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31.05.2017

doc

24.50 KB

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CAD/CAE-Data

CAD data

2D/3D Models 870-919

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CAE data

EPLAN Data Portal 870-919

Download icon

WSCAD Universe 870-919

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ZUKEN Portal 870-919


Download icon

1 Compatible Products


1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate



Item No.: 870-925  
End and intermediate plate; 2 mm thick; light gray




Item No.: 870-929  
Separator plate; 2 mm thick; oversized; orange


1.2 Optional Accessories

1.2.1 DIN-rail

1.2.1.1 Mounting accessories



Item No.: 210-111  
Steel carrier rail; 15 x 5.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; silver-colored



Item No.: 210-295  
Steel carrier rail; 15 x 5.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored



1.2.2 Ferrule

1.2.2.1 Ferrule



**Item No.: 216-321**  
Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow



**Item No.: 216-131**  
Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-322**  
Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise



**Item No.: 216-132**  
Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated



**Item No.: 216-221**  
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white



**Item No.: 216-121**  
Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-222**  
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray



**Item No.: 216-122**  
Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-223**  
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red



**Item No.: 216-123**  
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-224**  
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black



**Item No.: 216-124**  
Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated

1.2.3 Installation

1.2.3.1 Mounting accessories



**Item No.: 209-106**  
Mounting carrier; for isolated mounting on DIN 35 rails; gray



**Item No.: 249-101**  
Screwless end stop; 6 mm wide; for WMB markers; gray

1.2.4 Insulation stop

1.2.4.1 Insulation stop



**Item No.: 280-470**  
Insulation stop; 0.08 - 0.2 mm² "s" (0.14 mm² "f-st"); 5 pieces/strip; white



**Item No.: 280-471**  
Insulation stop; 0.25 - 0.5 mm²; 5 pieces/strip; light gray



**Item No.: 280-472**  
Insulation stop; 0.75 - 1 mm²; 5 pieces/strip; black

1.2.5 Jumper

1.2.5.1 Jumper



**Item No.: 870-405/011-000**



**Item No.: 870-407/011-000**



**Item No.: 870-409/011-000**



**Item No.: 870-406/020-000**  
Delta jumper; insulated; light gray



**Item No.: 870-410**  
Jumper; 10-way; insulated; light gray



**Item No.: 870-402**  
Jumper; 2-way; insulated; light gray



**Item No.: 870-403**  
Jumper; 3-way; insulated; light gray



**Item No.: 870-404**  
Jumper; 4-way; insulated; light gray



**Item No.: 870-405**  
Jumper; 5-way; insulated; light gray



**Item No.: 870-406**  
Jumper; 6-way; insulated; light gray



**Item No.: 870-407**  
Jumper; 7-way; insulated; light gray



**Item No.: 870-408**  
Jumper; 8-way; insulated; light gray



**Item No.: 870-409**  
Jumper; 9-way; insulated; light gray



**Item No.: 870-440**  
Jumper; from 1 to 10; insulated; light gray



**Item No.: 870-433**  
Jumper; from 1 to 3; insulated; light gray



**Item No.: 870-434**  
Jumper; from 1 to 4; insulated; light gray



1.2.5.1 Jumper



[Item No.: 870-435](#)  
Jumper; from 1 to 5; insulated; light gray



[Item No.: 870-436](#)  
Jumper; from 1 to 6; insulated; light gray



[Item No.: 870-437](#)  
Jumper; from 1 to 7; insulated; light gray



[Item No.: 870-438](#)  
Jumper; from 1 to 8; insulated; light gray



[Item No.: 870-439](#)  
Jumper; from 1 to 9; insulated; light gray

1.2.6 Marking

1.2.6.1 Group marker carrier



[Item No.: 870-182](#)  
Adaptor; gray



[Item No.: 870-183](#)  
Adaptor; gray



[Item No.: 870-184](#)  
Adaptor; gray

1.2.6.2 Marker



[Item No.: 2009-145/000-006](#)  
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue



[Item No.: 2009-145/000-007](#)  
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray



[Item No.: 2009-145/000-023](#)  
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green



[Item No.: 2009-145/000-012](#)  
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange



[Item No.: 2009-145/000-005](#)  
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red



[Item No.: 2009-145/000-024](#)  
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet



[Item No.: 2009-145](#)  
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white



[Item No.: 2009-145/000-002](#)  
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow



[Item No.: 248-501/000-006](#)  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue



[Item No.: 248-501/000-007](#)  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray



[Item No.: 248-501/000-023](#)  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green



[Item No.: 248-501/000-017](#)  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green



[Item No.: 248-501/000-012](#)  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange



[Item No.: 248-501/000-005](#)  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red



[Item No.: 248-501/000-024](#)  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet



[Item No.: 248-501](#)  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white



[Item No.: 248-501/000-002](#)  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow



[Item No.: 793-5501/000-006](#)  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; blue



[Item No.: 793-5501/000-007](#)  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; gray



[Item No.: 793-5501/000-023](#)  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; green



[Item No.: 793-5501/000-017](#)  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; light green



[Item No.: 793-5501/000-012](#)  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; orange



[Item No.: 793-5501/000-005](#)  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; red



[Item No.: 793-5501/000-024](#)  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; violet



[Item No.: 793-5501](#)  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white



[Item No.: 793-5501/000-002](#)  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; yellow



[Item No.: 793-501/000-006](#)  
WMB marking card; as card; not stretchable; plain; snap-on type; blue



[Item No.: 793-501/000-007](#)  
WMB marking card; as card; not stretchable; plain; snap-on type; gray



[Item No.: 793-501/000-023](#)  
WMB marking card; as card; not stretchable; plain; snap-on type; green



[Item No.: 793-501/000-017](#)  
WMB marking card; as card; not stretchable; plain; snap-on type; light green



[Item No.: 793-501/000-012](#)  
WMB marking card; as card; not stretchable; plain; snap-on type; orange



[Item No.: 793-501/000-005](#)  
WMB marking card; as card; not stretchable; plain; snap-on type; red

1.2.6.2 Marker



**Item No.: 793-501/000-024**  
WMB marking card; as card; not stretchable; plain; snap-on type; violet



**Item No.: 793-501**  
WMB marking card; as card; not stretchable; plain; snap-on type; white



**Item No.: 793-501/000-002**  
WMB marking card; as card; not stretchable; plain; snap-on type; yellow



**Item No.: 2009-115/000-006**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue



**Item No.: 2009-115/000-007**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray



**Item No.: 2009-115/000-023**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green



**Item No.: 2009-115/000-017**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green



**Item No.: 2009-115/000-012**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange



**Item No.: 2009-115/000-024**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet



**Item No.: 2009-115**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white



**Item No.: 2009-115/000-002**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

1.2.6.3 Marking strip



**Item No.: 709-196**  
Marking strips; for laser printer; translucent



**Item No.: 709-177**  
Marking strips; on reel; 7.5 mm wide; not stretchable; plain; snap-on type; translucent



**Item No.: 709-178**  
Marking strips; on reel; 7.5 mm wide; not stretchable; plain; snap-on type; white

1.2.7 Protective warning marker

1.2.7.1 Cover



**Item No.: 280-405**  
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

1.2.8 Test and measurement

1.2.8.1 Testing accessories



**Item No.: 870-427**  
Spacer module; modular; bridging commoned terminal blocks; gray



**Item No.: 870-426**  
Tap-off module; modular; suitable for 870 Series terminal blocks with jumper slots in the current bar; gray



**Item No.: 870-425**  
Tap-off module; with anti-rotation protection; modular; suitable for 870 Series terminal blocks with jumper slots in the current bar; gray

1.2.9 Tool

1.2.9.1 Operating tool



**Item No.: 210-658**  
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured

**Item No.: 210-720**  
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

**Item No.: 210-657**  
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

Installation Notes

Installation



**Mounting on DIN-15 rail:**  
Snap individual terminal blocks onto the DIN-15 rail and slide together.  
**Removal from DIN-15 rail:**  
Open assembly by laterally sliding terminal blocks with an operating tool and remove them from the rail.

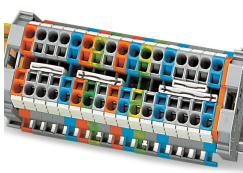
Conductor termination



**CAGE CLAMP® connection**  
Inserting a conductor via operating tool (0.08 ... 4 mm² "f-st").  
With ferruled conductors, it is necessary to use a terminal block one size smaller than the conductor's nominal cross-section.

Inserting insulation stops into conductor entry holes of terminal strip.

Commoning

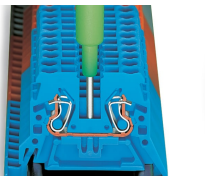


Push jumper bars down firmly until fully inserted. When using multipole bars, push alternately on the right and then left side until installed.  
Push-in type jumper bars 1 – 3 – 5 – 7 or 1 – – 4 – – 7 upon request

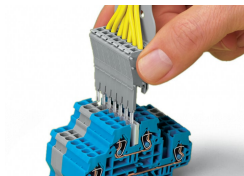
Commoning with push-in type jumper bars:  
Two parallel jumper slots are accommodated in one terminal block.



Testing

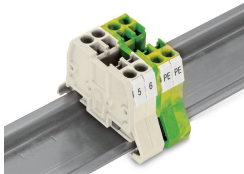


Testing with phase testing device, also possible with single-pole voltage tester.



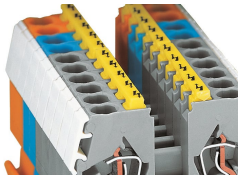
Testing is also possible using a pre-wired tap-off module assembly in the very same way as test plugs.

Ex application



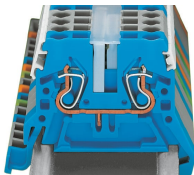
In order to meet creepage and clearance requirements for Ex e applications, it is necessary to insert an end or intermediate plate between a through and a ground conductor terminal block. End plates 870-923 (gray), 870-924 (orange) and 870-925 (light gray), as well as separator plates 870-928 (gray) and 870-929 (orange) cannot be assembled to 2-conductor ground Ex terminal blocks (870-907/999-950).

Cover

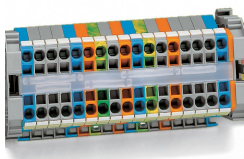


Protective warning markers (280-405), with a black high-voltage symbol

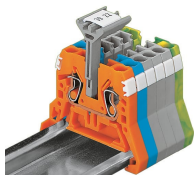
Marking



WMB markers in Mini-WSB marker slots  
Translucent marking strip  
Mini-WSB markers



Translucent marking strip (709-196) – jumpers below may be visible.



In addition to the plastic marker strips, group marker carriers are now available for the WMB and WSB marking systems. They can be mounted in parallel to a push-in type jumper bar via the open jumper contact slot. It is also very useful if the marker slots on the side of the terminal block are hidden. The carriers are available in the following widths: 5 mm (0.197 inch), 10 mm (0.394 inch) and 15 mm (0.591 inch).  
**Notice:**  
Group marker carriers are not suitable for ground conductor terminal blocks and double potential terminal blocks as they have no jumper contact slots.

