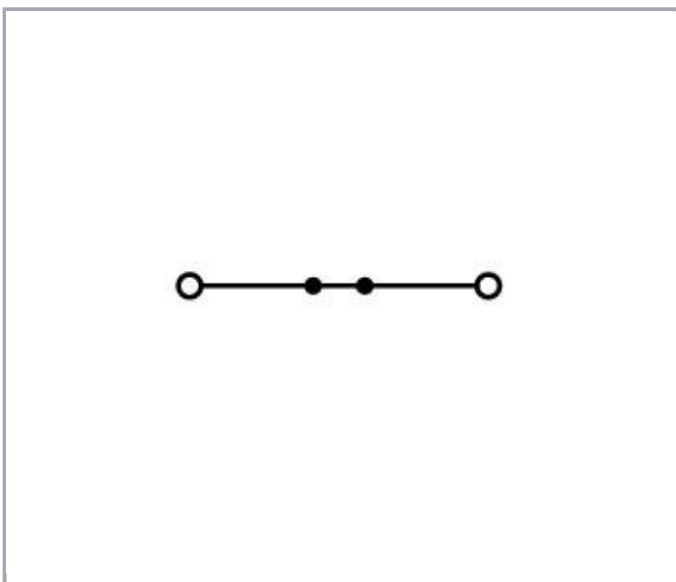
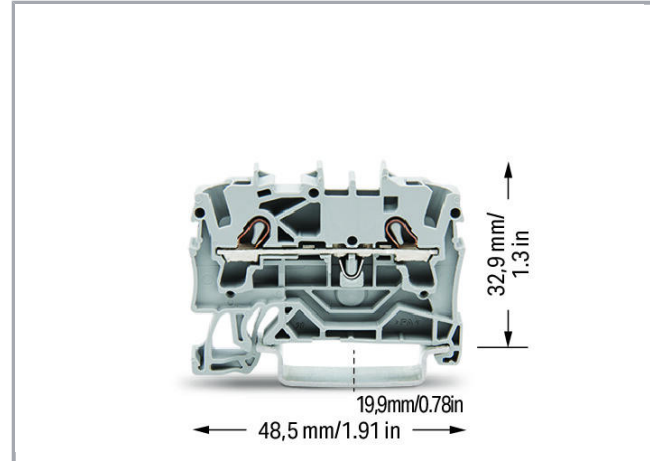
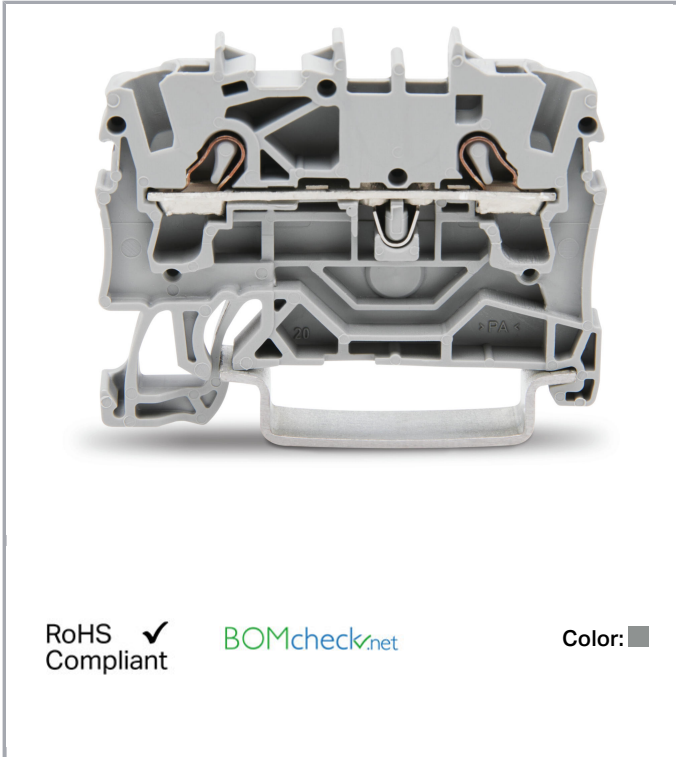


Data sheet | Item number: 2002-1201

2-conductor through terminal block; 2.5 mm²; suitable for Ex e II applications; side and center marking; for DIN-rail 35 x 15 and 35 x 7.5; Push-in CAGE CLAMP®; 2,50 mm²; gray

www.wago.com/2002-1201



Subject to changes.

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Data

Electrical data

Ratings per IEC/EN 60664-1

| | |
|---------------------------------|---|
| Rated voltage (III / 3) | 800 V |
| Rated impulse voltage (III / 3) | 8 kV |
| Rated current | 24 A |
| Rated current (2) | 32 A |
| Legend (ratings) | (III / 3) $\hat{=}$ Overvoltage category III / Pollution degree 3 |

Approvals per UL 1059

| | |
|--------------------------------|-------|
| Rated voltage UL (Use Group B) | 600 V |
| Rated current UL (Use Group B) | 20 A |
| Rated voltage UL (Use Group C) | 600 V |
| Rated current UL (Use Group C) | 20 A |

Approvals per CSA

| | |
|---------------------------------|-------|
| Rated voltage CSA (Use Group B) | 600 V |
| Rated current CSA (Use Group B) | 20 A |
| Rated voltage CSA (Use Group C) | 600 V |
| Rated current CSA (Use Group C) | 20 A |

Approvals Ex

| | |
|-------------------------------------|-------|
| Rated voltage EN (Ex e II) | 550 V |
| Rated current (Ex e II) | 22 A |
| Rated current (Ex e II) with jumper | 20 A |

Connection data

| | |
|--------------------------------------|--|
| Connection technology | Push-in CAGE CLAMP [®] |
| Actuation type | Push-in Open Tool Slot |
| Connectable conductor materials | Copper |
| Nominal cross section | 2.5 mm ² |
| Solid conductor | 0.25 ... 4 mm ² / 22 ... 12 AWG |
| Solid conductor, push-in termination | 1 ... 4 mm ² / 18 ... 12 AWG |
| Fine-stranded conductor | 0.25 ... 4 mm ² / 22 ... 12 AWG |

Subject to changes.



| | |
|---|---|
| Fine-stranded conductor with ferrule with plastic collar | 1 ... 2.5 mm ² / 18 ... 12 AWG |
| Fine-stranded conductor with ferrule, push-in termination, from | 1 ... 2.5 mm ² / 18 ... 12 AWG |
| Strip length | 10 ... 12 mm / 0.39 ... 0.47 inch |
| Total number of connection points | 2 |
| Total number of potentials | 1 |
| Number of levels | 1 |
| Type of wiring | Front-entry wiring |
| Note (conductor cross-section) | Depending on the conductor characteristic, a conductor with a smaller cross section can also be inserted via push-in termination. |
| Number of jumper slots | 2 |

Geometrical Data

| | |
|---------------------------------------|----------------------|
| Width | 5.2 mm / 0.205 inch |
| Height from upper-edge of DIN-35 rail | 32.9 mm / 1.295 inch |
| Depth | 48.5 mm / 1.909 inch |

Mechanical data

| | |
|------------------|---------------------|
| Design | horizontal |
| Type of mounting | DIN-35 rail |
| Marking level | Center/side marking |

Material Data

| | |
|---------------------|----------------------|
| Color | gray |
| Insulating material | Polyamide 66 (PA 66) |
| Fire load | 0.109 MJ |
| Weight | 5.1 g |

Commercial data

| | |
|--------------------|---------------|
| Product Group | 22 (TOPJOB S) |
| Packaging type | BOX |
| Country of origin | DE |
| GTIN | 4017332999168 |
| Customs Tariff No. | 85369010000 |

Approvals / Certificates

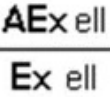


Ex-Approvals

Certificate




Subject to changes.

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| Logo | Approval | Additional Approval Text | name |
|--|---|--------------------------|--|
|  | AEx Underwriters Laboratories Inc. | UL 60079 | 20190704- E185892 |
|  | ATEX Physikalisch Technische Bundesanstalt (PTB) | EN 60079 | PTB 03 ATEX 1162 U (II 2 G/D Ex e II bzw. I M 2 Ex e I) |
|  | IECEX Physikalisch Technische Bundesanstalt | IEC 60079 | IECEX PTB 03.0004U (Ex eb IIC Gb or Ex eb I Mb) |

Country specific Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|--|---------------------------------------|--------------------------|------------------|
|  | CCA DEKRA Certification B.V. | EN 60947 | NTR NL 7730 |
|  | CSA DEKRA Certification B.V. | C22.2 No. 158 | 1536069 |
|  | KEMA/KEUR DEKRA Certification B.V. | EN 60947 | 71- 107687 |

Ship Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|--|------------------------------------|--------------------------|--------------------------|
|  | ABS American Bureau of Shipping | EN 60947 | 14- HG1293677- PDA |
|  | BV Bureau Veritas S.A. | EN 60947 | 38586/A0 BV |

Subject to changes.

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DNV GL
Det Norske Veritas, Germanischer Lloyd

TAE00001V2



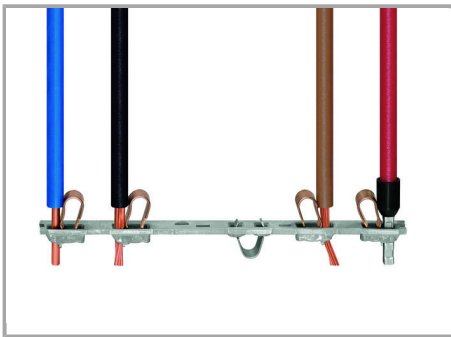
LR
Lloyds Register

EN 60947

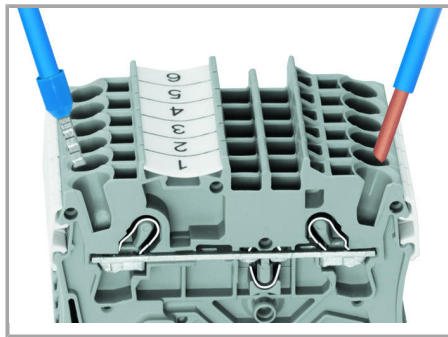
91/20112
(E9)

Installation Notes

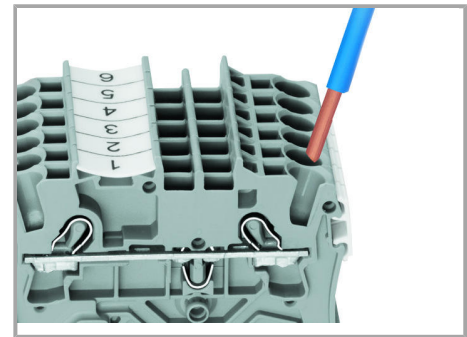
Inserting a conductor



All conductor types at a glance



Terminating solid and ferruled conductors via push-in connection.



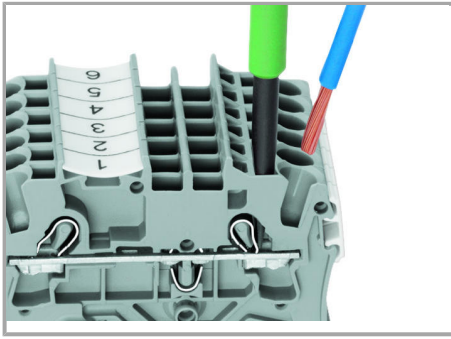
Inserting conductors via push-in termination.

Solid conductors with cross-sections from either one size above, or up to two sizes below, the rated cross-section can be simply pushed in – no tools needed.

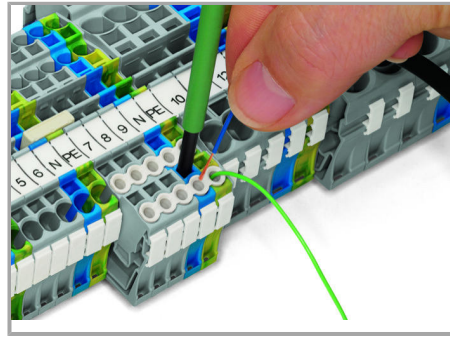
Subject to changes.

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Inserting a conductor via operating tool.



Conductor termination – Insulation stop.

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 an operating tool.

The smart feature:

To open the clamp, the operating tool is inserted vertically. The conductor entry is less than 15 degrees for easier wiring.

Jumpered

Subject to changes.



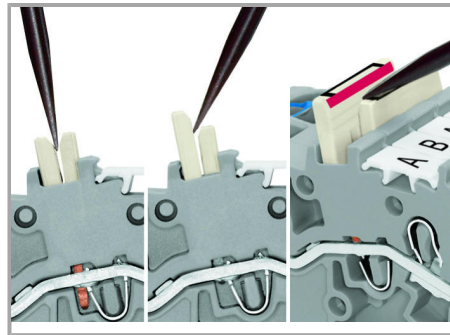
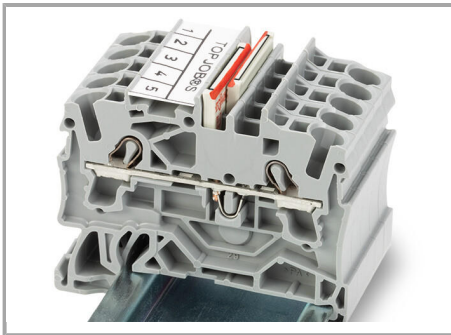
The push-in type jumper bar system is based on the common plug and socket principle. Each terminal block is spring-loaded with a double socket and a resilient CrNi steel spring. The jumper contact material is pure electrolytic copper, which allows for an extremely small design capable of carrying the full-rated current of the terminal block. Ground terminal blocks can also be commoned using the same jumper system. Custom jumpers are created by breaking and removing jumper contacts (2000, 2001, 2002, 2004 Series).

Removing a push-in type jumper bar.

Insert the operating tool between the jumper and and partition wall of the dual jumper slots, then lift up the jumper.

Place the operating tool in the center of jumpers up to five contacts (see above), or alternately on both sides for jumpers with more than five contacts.

Jumpered



Locate red stripes of the staggered jumpers on the inside.

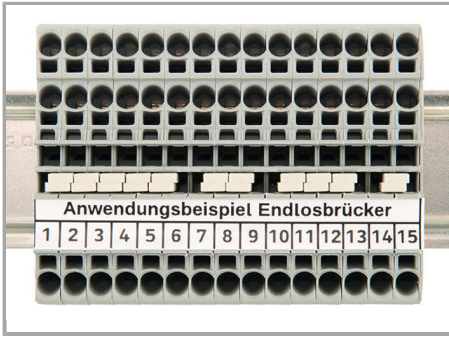
Removing a staggered jumper:

Insert staggered jumper and push down until it hits backstop.

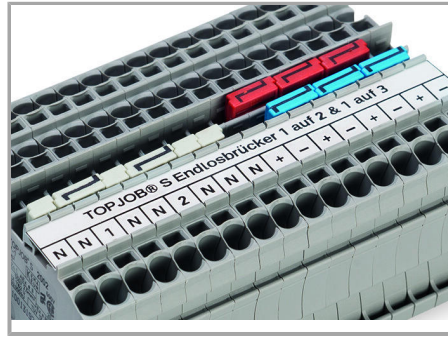
Insert the operating tool between the staggered jumpers, then lift up the jumper.

Jumpered

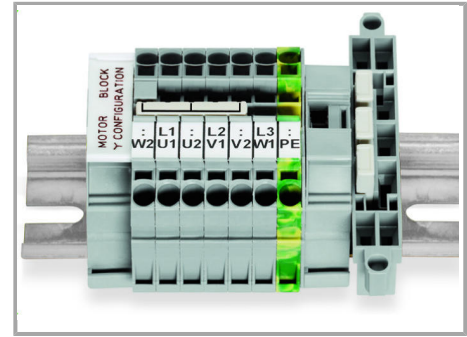
Subject to changes.



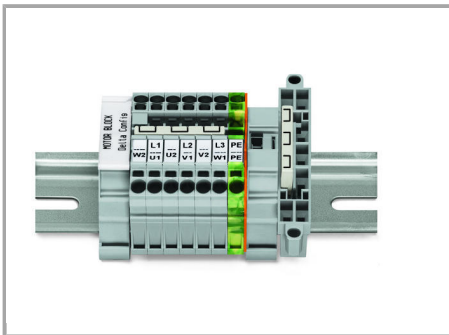
Continuous jumpers (2002 Series) readily connect an endless number of terminal blocks to each other via a single jumper slot. Use the second jumper slot for additional commoning or testing.



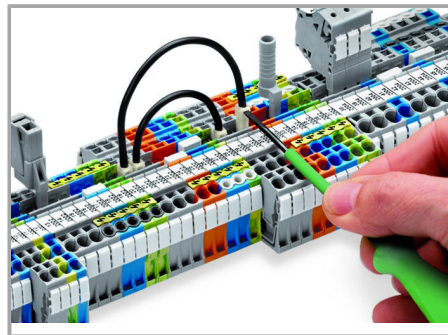
The 1-to-3 adjacent jumper for continuous commoning enables every other terminal block to be commoned. For example, positive and negative potentials can be accommodated alongside each other.



This star point jumper has been specially developed to create a "star point" and is used on motor terminal boards equipped with TOPJOB® S rail-mount terminal blocks.



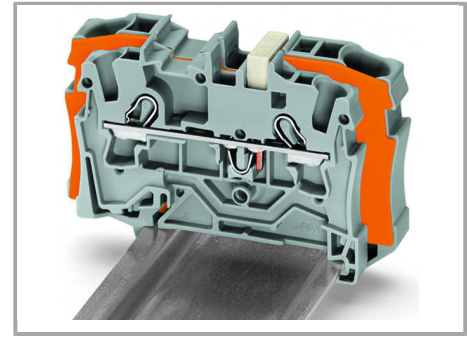
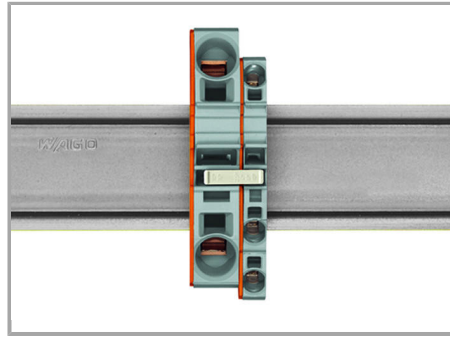
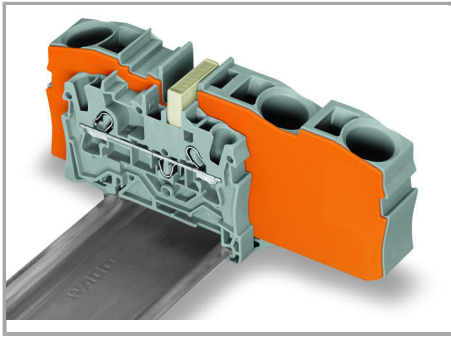
This delta jumper has been specially developed to create a delta configuration and is used on motor terminal boards equipped with TOPJOB® S rail-mount terminal blocks.



Push down the wire jumper until fully inserted. Lift the jumper with an operating tool for rewiring.

Jumpered

Subject to changes.



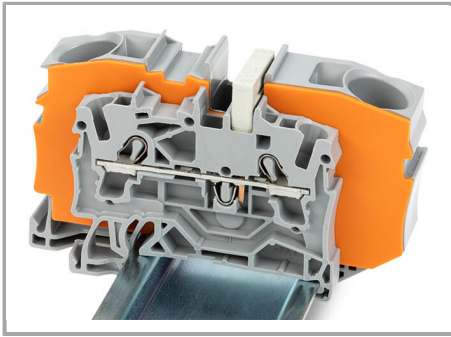
Step-down jumpers may common terminal blocks of different sizes, without losing a conductor clamping point. This can be beneficial on long conductor runs where voltage drops may be problematic. A large conductor can be easily connected to smaller conductors at the distribution point.

Using step-down jumpers, an end plate must be inserted between the terminal blocks to be commoned.

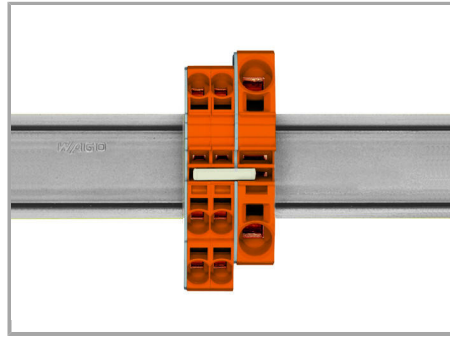
Step-down jumper (2006-499) commons 6 /4 mm² (10/12 AWG) terminal blocks (2006 /2004 Series) with 4/2.5/1.5 mm² (12/14/16 AWG) terminal blocks (2004/2002/2001 Series).

Commoning may be made in either direction using the special thin end plate to cover the open side. Additional through terminal blocks having a smaller cross-section may be commoned using push-in type jumper bars.

Subject to changes.

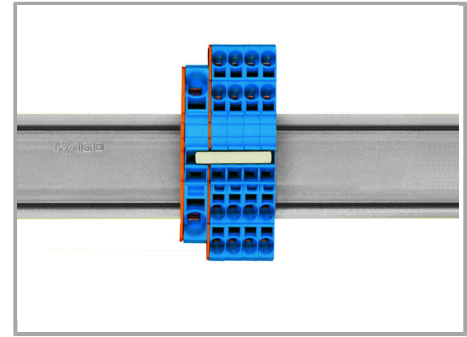


Step-down jumper (2016-499) commons 16 /10 mm² (16/8 AWG) terminal blocks (2016 /2010 Series) with 10/6/4/2.5 mm² (8/10/12 /14 AWG) terminal blocks (2010/2006/2004 /2002 Series).



Stepping down via push-in type jumper bar.

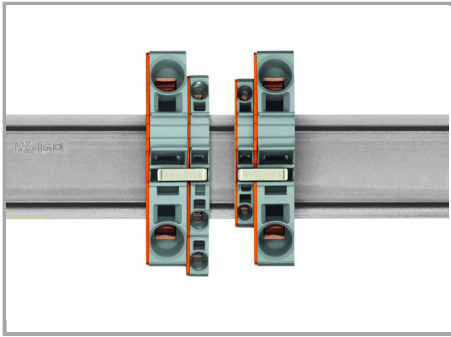
Commoning via open terminal side with end plate allows jumpering over two cross-section sizes for 16 mm² (6 AWG) and 10 mm² (8 AWG) and one cross-section size for 6/4/2.5 mm² (10/12/14 AWG). An example: from 16 mm² (6 AWG) to 6 mm² (10 AWG) (see illustration above) or from 10 mm² (8 AWG) to 4 mm² (12 AWG).



Stepping down via push-in type jumper bar.

Commoning via closed terminal side with end plate allows jumpering over two cross-section sizes, e.g., from 16 mm² (6 AWG) to 6 mm² (10 AWG) or from 6 mm² (10 AWG) to 2.5 mm² (14 AWG) (see illustration above).

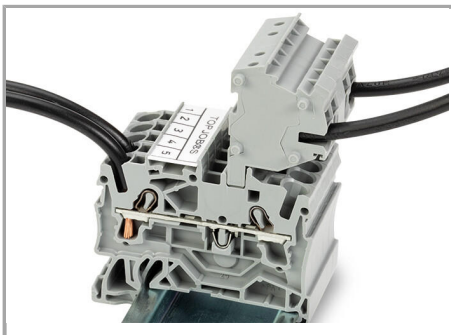
Subject to changes.



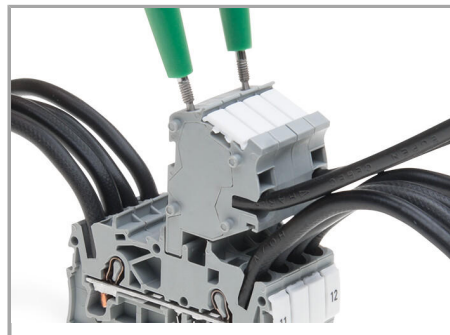
Note:

The total current of the outgoing circuits shall not exceed the nominal current of the step-down jumper/push-in type jumper bar.

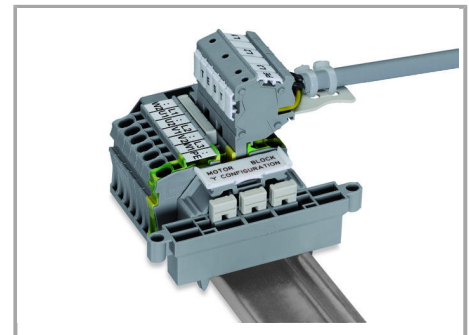
Testing



The modular TOPJOB® S connectors also connect conductors of the same size as the terminal blocks being used.

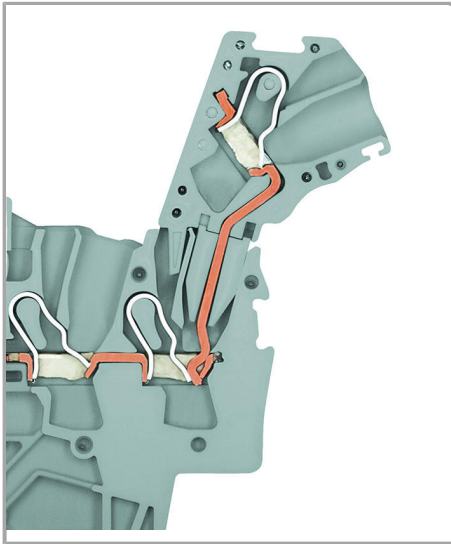


TOPJOB® S Connectors with a 2 mm Ø test socket for testing voltage via 2-pole voltage tester

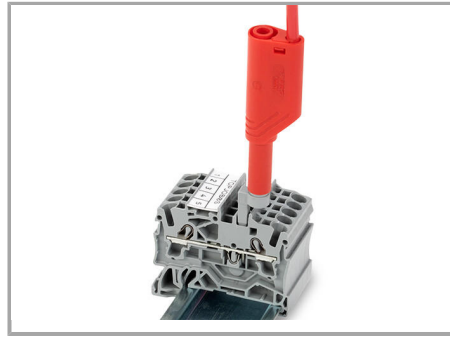


Rail-mount terminal block assembly for electric motor wiring

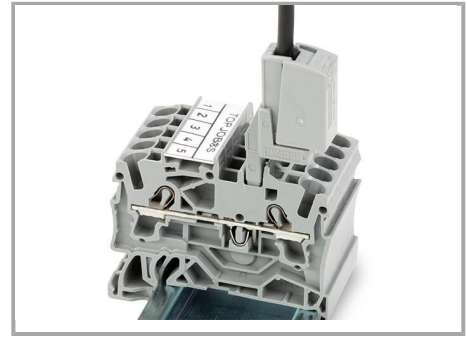
Subject to changes.



L-type test plug module – cross-sectional view of contacts

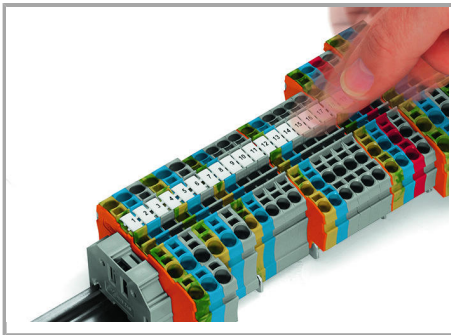


Test plug adapter (2009-174, CAT I) for 4 mm Ø plugs – compatible with 2000 to 2016 Series

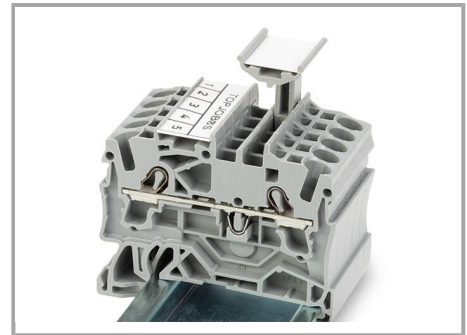
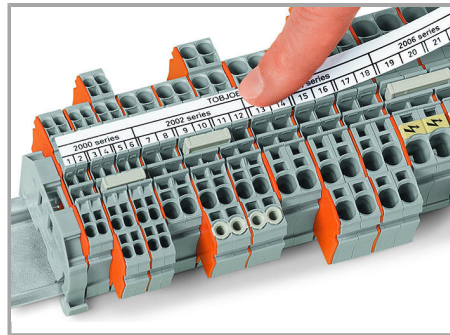


Testing tap (2009-182) for tool-free connection of test cables up to 2.5 mm² (12 AWG) – compatible with 2000 to 2016 Series

Marking



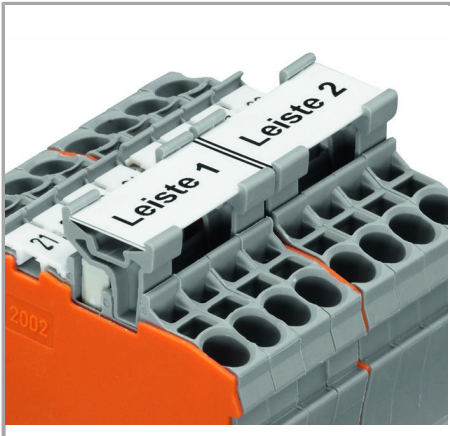
Snapping WMB Inline markers into marker slots.



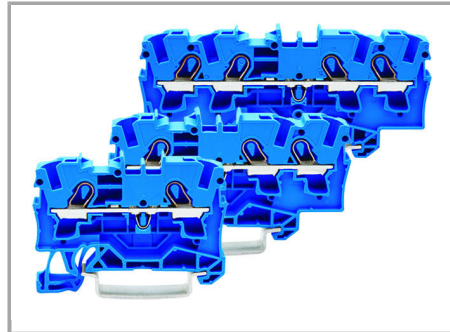
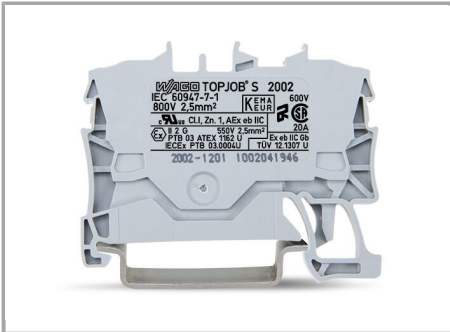
TOPJOB® S 2009-193 Group Marker Carrier (equipped with a marking strip) for all 2001 to 2016 Series TOPJOB® S Rail-Mount Terminal Blocks

Do not use on an end plate!

Subject to changes.



Using marker carriers for marking strips (2002-161) in jumper slots.

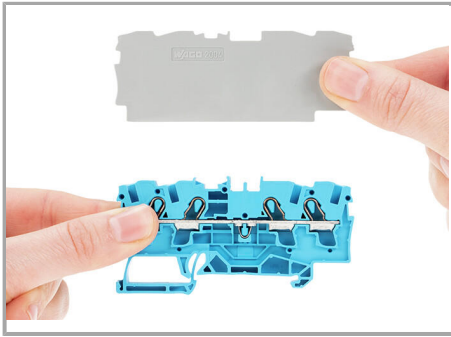


Through terminal blocks with a blue insulated housing are suitable for Ex i applications.

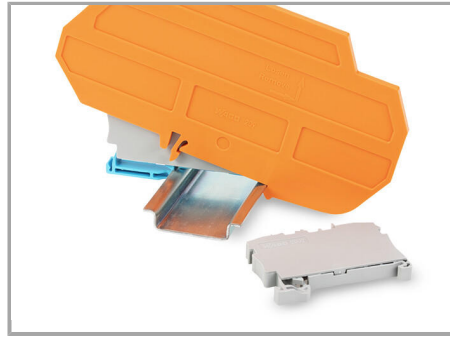


All through and ground conductor terminal blocks are suitable for Ex e II applications.

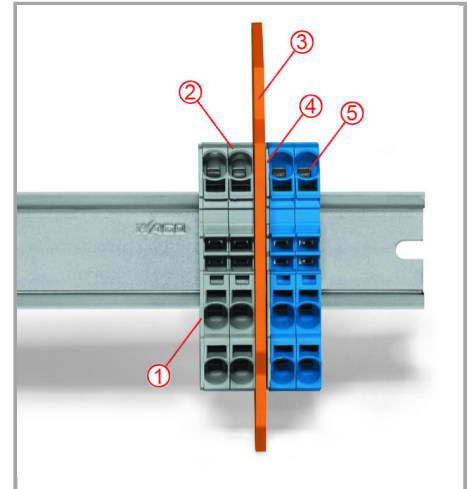
Subject to changes.



Separator for Ex e/Ex applications



Ex e II/Ex i terminal strip



Separator located between Ex e II and Ex i terminal strip

An end plate must be applied to the terminal block located directly behind an Ex e/Ex i separator plate.

Notice:

The movable feet of terminal blocks and separator plates must face the same direction.

End plate

Ex e II terminal blocks

Separator for Ex e/Ex i applications

End plate

Ex i terminal blocks

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.

Subject to changes.