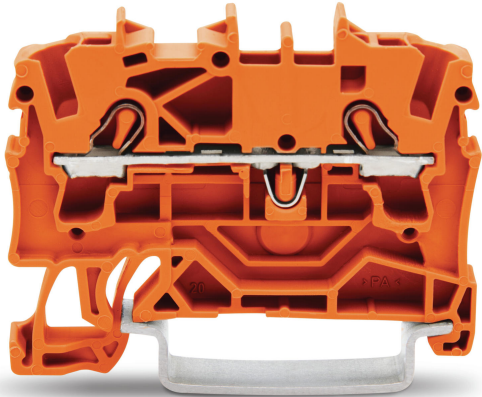


Data sheet | Item number: 2002-1202

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; orange

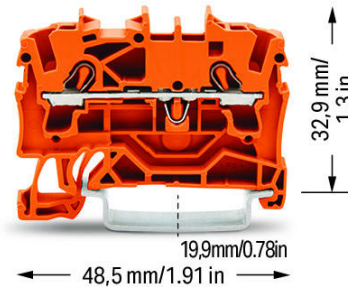
www.wago.com/2002-1202



RoHS
Compliant ✓

BOMcheck.net

Color: ■



Data

Subject to changes.

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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) $\triangleq$ 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	0.75 ... 4 mm ² / 18 ... 12 AWG
Fine-stranded conductor	0.25 ... 4 mm ² / 22 ... 12 AWG
Fine-stranded conductor with ferrule with plastic collar	1 ... 2.5 mm ² / 18 ... 12 AWG

Subject to changes.



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	orange
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	4017332999182
Customs Tariff No.	85369010000

Approvals / Certificates

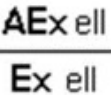
Ex-Approvals

Logo	Approval	Additional Approval Text	Certificate name
------	----------	--------------------------	------------------

Subject to changes.

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	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
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2

Subject to changes.

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UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	cURus Underwriters Laboratories Inc.	UL 1059	E45172

Downloads

Documentation

Additional Information

Technical explanations	03.04.2019	pdf 2.1 MB	Download
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CAD/CAE-Data

CAD data

2D/3D Models 2002-1202	URL	Download
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CAE data

EPLAN Data Portal 2002-1202	Download
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WSCAD Universe 2002-1202	Download
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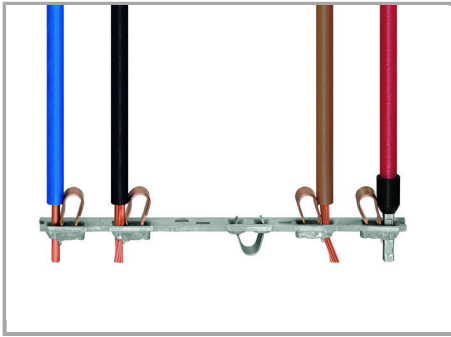
Installation Notes

Inserting a conductor

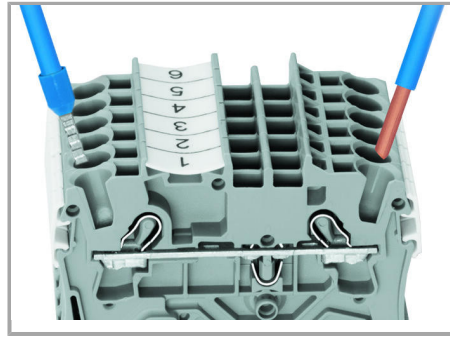
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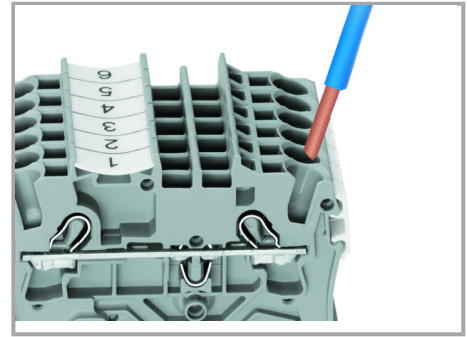
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All conductor types at a glance



Terminating solid and ferruled conductors via push-in connection.



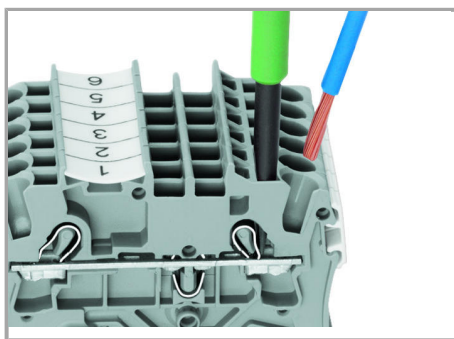
Inserting conductors via push-in termination.

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.

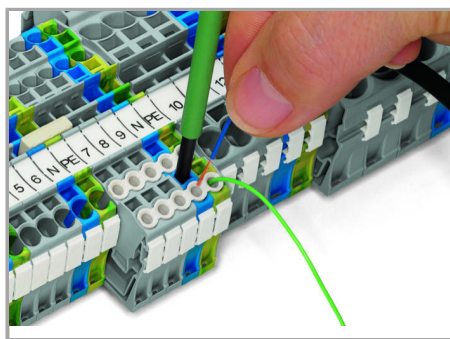
Subject to changes.

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Inserting a conductor via operating tool.



Conductor termination – Insulation stop.

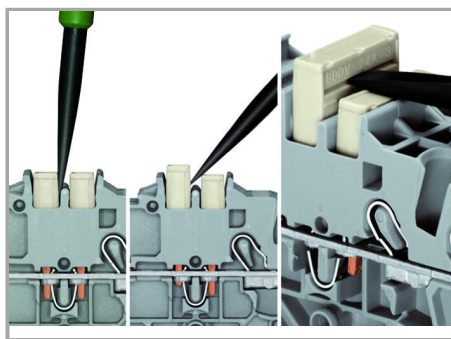
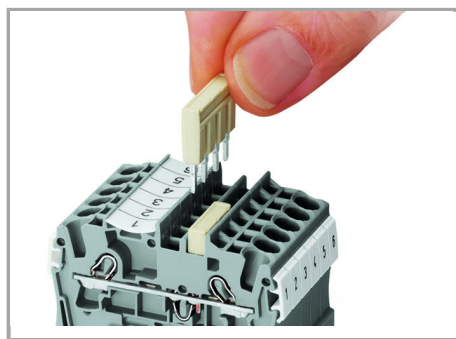
Connecting fine-stranded conductors without ferrules, or small cross-sectional conductors that cannot be pushed in, is performed similarly to the original CAGE CLAMP® – just use an operating tool.

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.



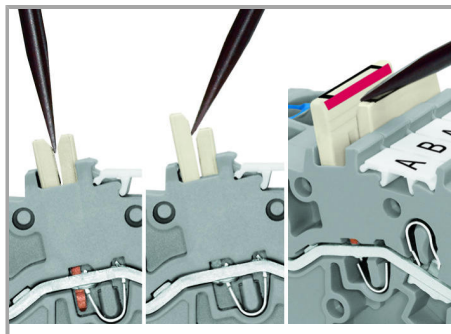
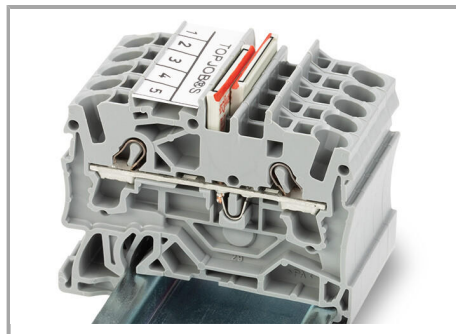
The push-in type jumper bar system is based on the common plug and socket principle. Each terminal block is spring-loaded with a double socket and a resilient CrNi steel spring. The jumper contact material is pure electrolytic copper, which allows for an extremely small design capable of carrying the 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.

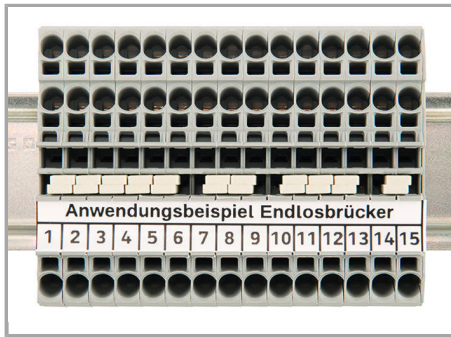
Removing a staggered jumper:

Insert staggered jumper and push down until it hits backstop.

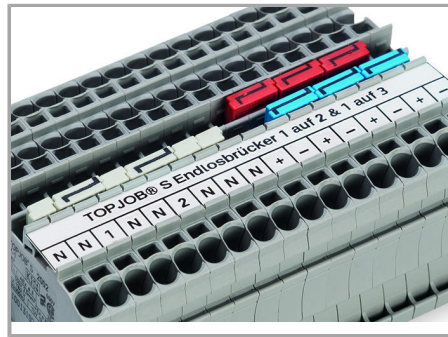
Insert the operating tool between the staggered jumpers, then lift up the jumper.

Jumpered

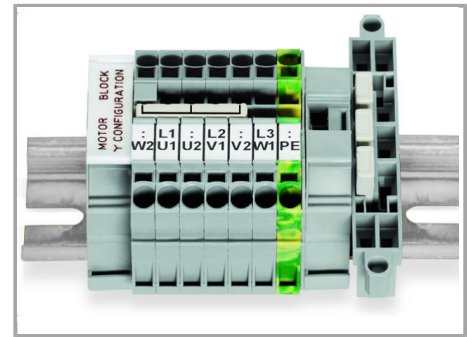
Subject to changes.



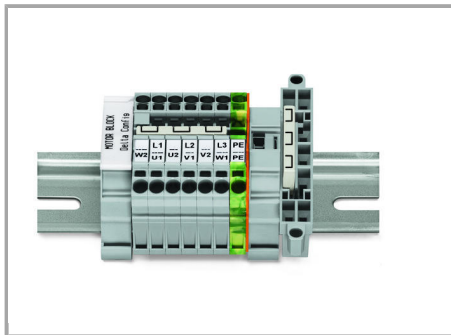
Continuous jumpers (2002 Series) readily connect an endless number of terminal blocks to each other via a single jumper slot. Use the second jumper slot for additional commoning or testing.



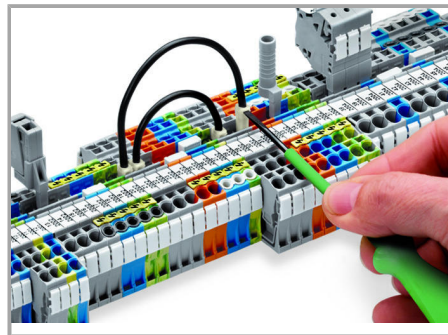
The 1-to-3 adjacent jumper for continuous commoning enables every other terminal block to be commoned. For example, positive and negative potentials can be accommodated alongside each other.



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.



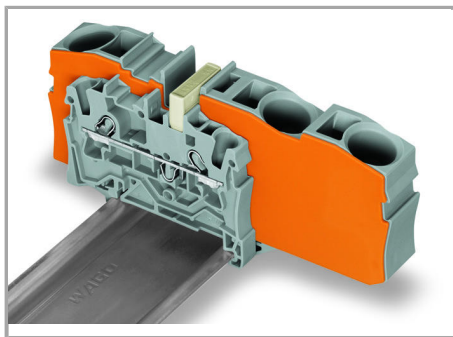
This delta jumper has been specially developed to create a delta configuration and is used on motor terminal boards equipped with TOPJOB® S rail-mount terminal blocks.



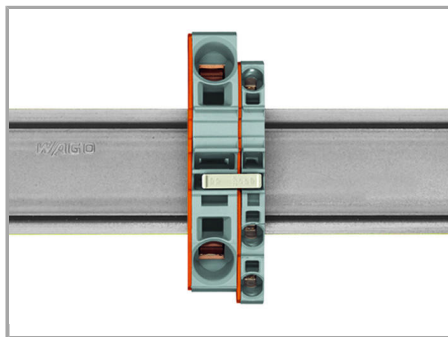
Push down the wire jumper until fully inserted. Lift the jumper with an operating tool for rewiring.

Jumpered

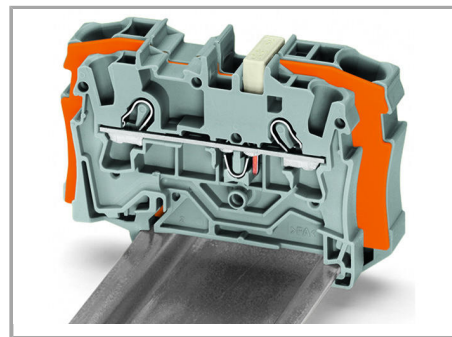
Subject to changes.



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.



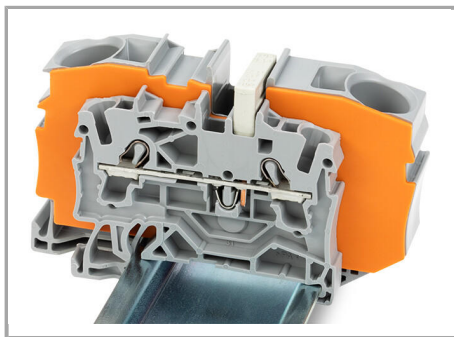
Using step-down jumpers, an end plate must be inserted between the terminal blocks to be commoned.



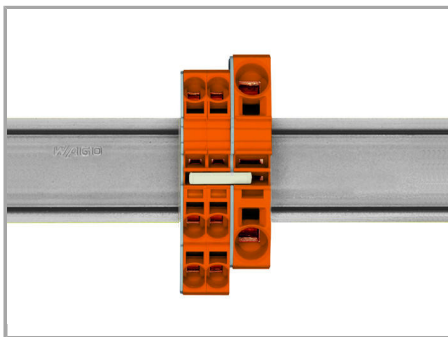
Step-down jumper (2006-499) commons 6 /4 mm² (10/12 AWG) terminal blocks (2006 /2004 Series) with 4/2.5/1.5 mm² (12/14/16 AWG) terminal blocks (2004/2002/2001 Series).

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.

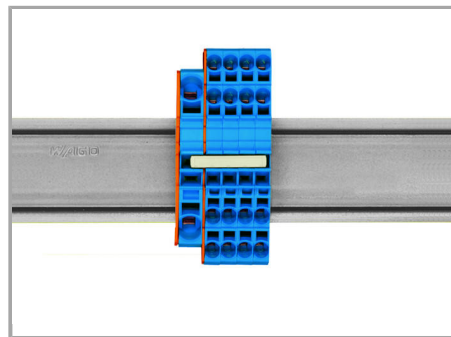


Step-down jumper (2016-499) commons 16 /10 mm² (16/8 AWG) terminal blocks (2016 /2010 Series) with 10/6/4/2.5 mm² (8/10/12 /14 AWG) terminal blocks (2010/2006/2004 /2002 Series).



Stepping down via push-in type jumper bar.

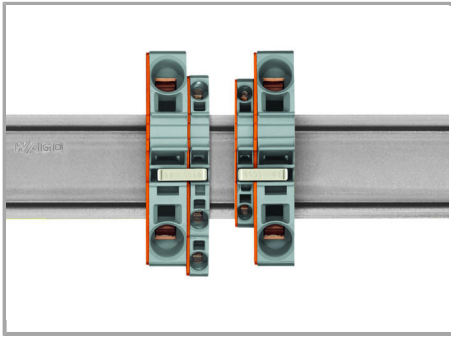
Commoning via open terminal side with end plate allows jumpering over two cross-section sizes for 16 mm² (6 AWG) and 10 mm² (8 AWG) and one cross-section size for 6/4/2.5 mm² (10/12/14 AWG). An example: from 16 mm² (6 AWG) to 6 mm² (10 AWG) (see illustration above) or from 10 mm² (8 AWG) to 4 mm² (12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

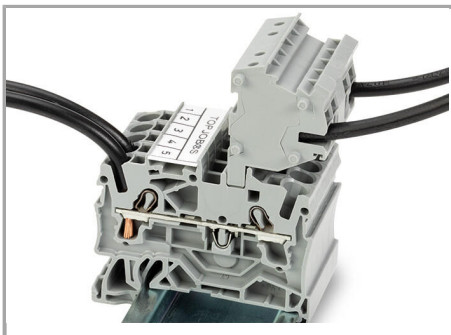
Subject to changes.



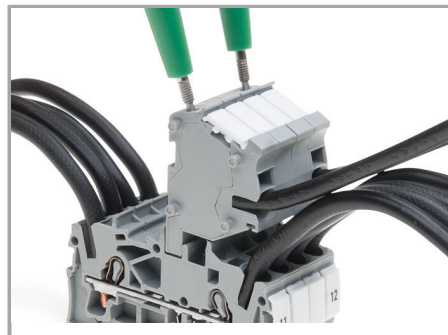
Note:

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

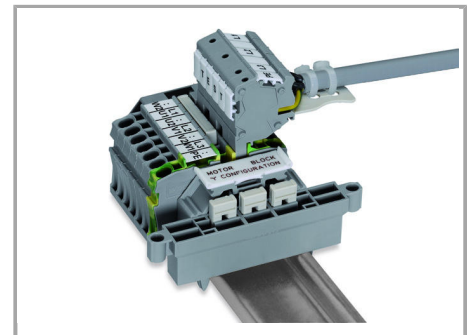
Testing



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

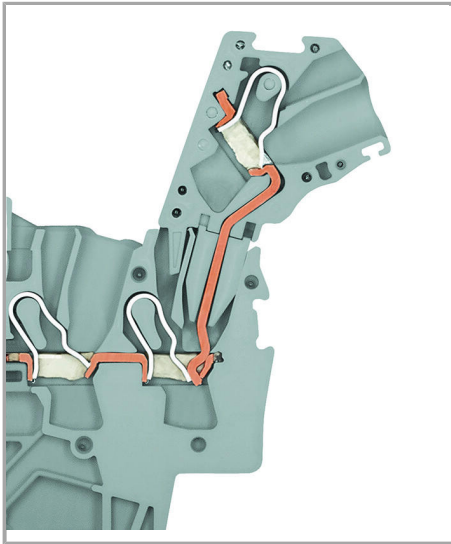


TOPJOB® S Connectors with a 2 mm Ø test socket for testing voltage via 2-pole voltage tester

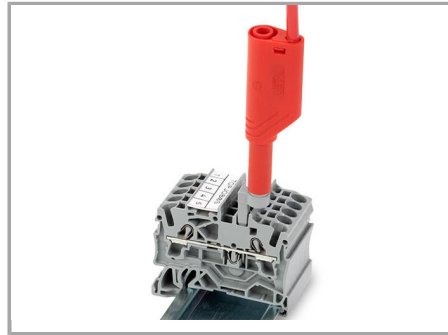


Rail-mount terminal block assembly for electric motor wiring

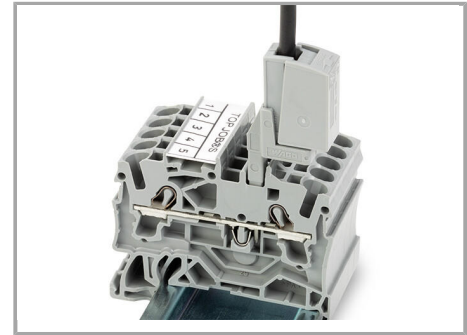
Subject to changes.



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

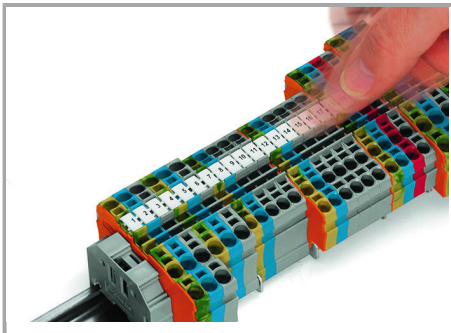


Test plug adapter (2009-174, CAT I) for 4 mm Ø plugs – compatible with 2000 to 2016 Series

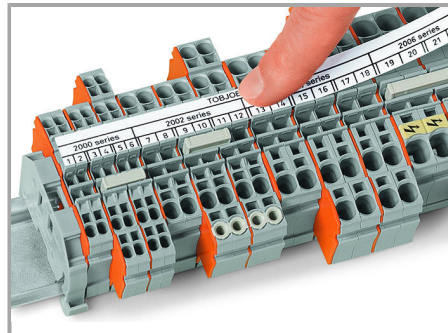


Testing tap (2009-182) for tool-free connection of test cables up to 2.5 mm² (12 AWG) – compatible with 2000 to 2016 Series

Marking



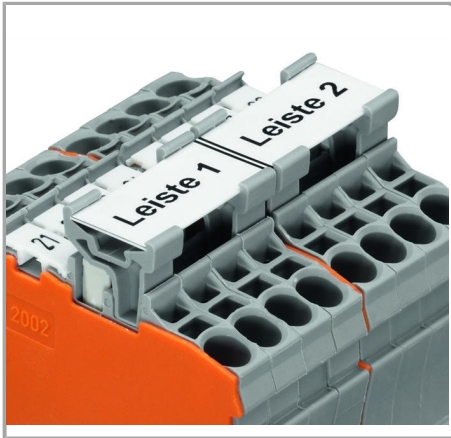
Snapping WMB Inline markers into marker slots.



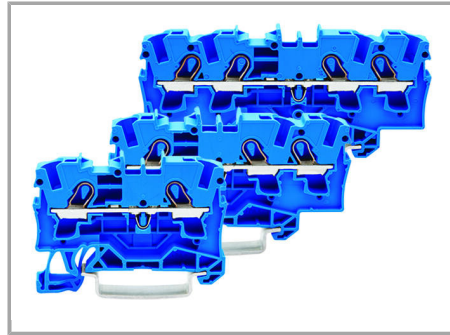
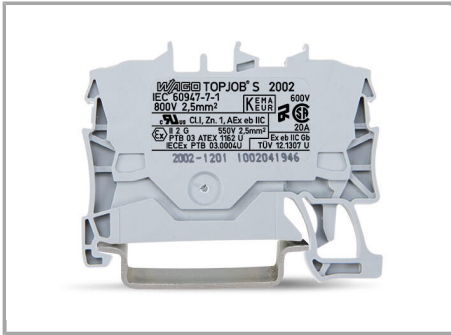
TOPJOB® S 2009-193 Group Marker Carrier (equipped with a marking strip) for all 2001 to 2016 Series TOPJOB® S Rail-Mount Terminal Blocks

Do not use on an end plate!

Subject to changes.



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

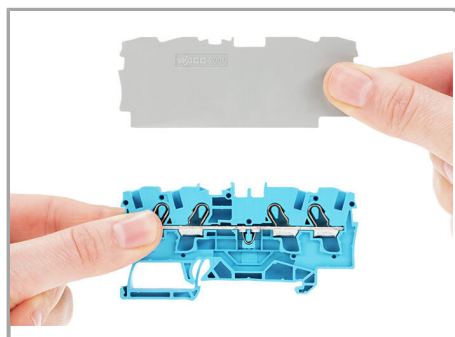


Through terminal blocks with a blue insulated housing are suitable for Ex i applications.



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

Subject to changes.



Separator for Ex e/Ex applications

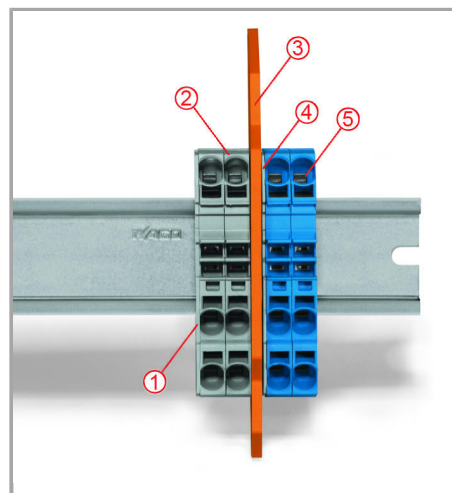


Ex e II/Ex i terminal strip

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.



Separator located between Ex e II and Ex i terminal strip

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.