

Adjacent Jumpers for Continuous Commoning and Colored Push-In Type Jumper Bars, 2002 Series

Adjacent jumper for continuous commoning	Push-in type jumper bar	Push-in type jumper bar
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Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Adjacent jumper for continuous commoning, insulated, I _N 25 A, light gray		Push-in type jumper bar, insulated, I _N 25 A, red		Push-in type jumper bar, insulated, I _N 25 A, blue	
○ 2-way	2002-400 100 (4x25)	● 2-way	2002-402/000-005	● 2-way	2002-402/000-006
		● 3-way	2002-403/000-005	● 3-way	2002-403/000-006
		● 4-way	2002-404/000-005	● 4-way	2002-404/000-006
			200 (8x25)		200 (8x25)
		● 5-way	2002-405/000-005	● 5-way	2002-405/000-006
		● 6-way	2002-406/000-005	● 6-way	2002-406/000-006
		● 7-way	2002-407/000-005	● 7-way	2002-407/000-006
		● 8-way	2002-408/000-005	● 8-way	2002-408/000-006
		● 9-way	2002-409/000-005	● 9-way	2002-409/000-006
		● 10-way	2002-410/000-005	● 10-way	2002-410/000-006
			100 (4x25)		100 (4x25)



Adjacent jumpers for continuous commoning



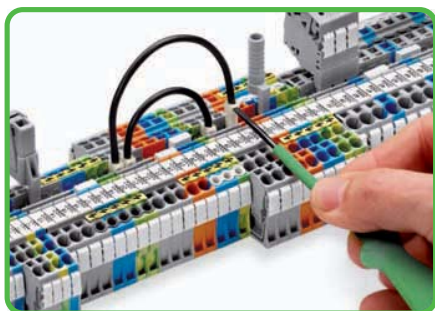
Colored push-in type jumper bars are used with sensor terminal blocks.

TOPJOB® Push-In Type Wire Jumpers Star Point Jumpers and Delta Jumpers

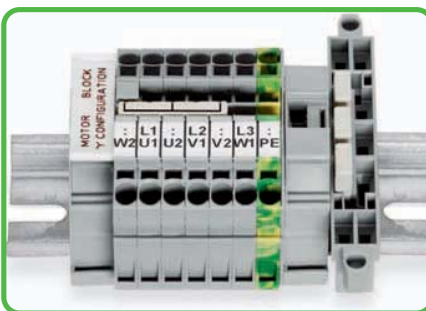
<p>Push-in type wire jumper</p> <p>I_N 16 A Conductor size 1.5 mm²</p>	<p>Star point jumper 800 V/8 kV/3 $I_N = I_N$ terminal block</p>	<p>Delta jumper 800 V/8 kV/3 $I_N = I_N$ terminal block</p>
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Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Push-in type wire jumper , insulated, conductor cross section 1.5 mm ² , suitable for 2001, 2002 and 2003 Series rail-mounted terminal blocks		Star point jumper , insulated, 1-3-5, light gray		Delta jumper , insulated, 1-2 3-4 5-6, light gray	
L = 60 mm	2009-412 100 (10x10)	○	2000-405/011-000	○	2000-406/020-000
L = 110 mm	2009-414 100 (10x10)	○	2001-405/011-000	○	2001-406/020-000
L = 250 mm	2009-416 100 (10x10)	○	2002-405/011-000	○	2002-406/020-000
		○	2004-405/011-000	○	2004-406/020-000
			100 (4x25)		100 (4x25)
		○	2006-405/011-000		
		○	2010-405/011-000		
		○	2016-405/011-000		
			50 (2x25)		



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



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

TOPJOB®

Staggered Jumpers

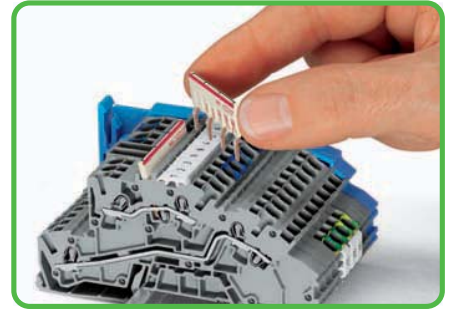
2002 Series

Staggered jumper
400 V/6 kV/3
I_N 25 A



Staggered jumper with 7 contacts

Breaking off contact lugs - Individual jumper contacts can be broken off by bending them. The remaining piece of insulation will meet requirements for clearances and creepage distances.



Insert staggered jumper

Push staggered jumper down until fully inserted.

Item No.	Pack. Unit
Staggered jumper, insulated, suitable for 2002 and 2003 Series rail-mounted terminal blocks, 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)
○ 6-way	2002-476 50 (2x25)
○ 7-way	2002-477 50 (2x25)
○ 8-way	2002-478 50 (2x25)
○ 9-way	2002-479 50 (2x25)
○ 10-way	2002-480 50 (2x25)
○ 11-way	2002-481 50 (2x25)
○ 12-way	2002-482 50 (2x25)

Commoning using staggered jumpers

Individual jumper contacts can be broken off by bending them. The remaining piece of insulation will meet the requirements for clearances and creepage distances.

This makes it possible to create custom staggered jumpers, e.g. for bridging over a terminal block with a different potential. When creating the jumpers, ensure only one contact lug is in contact with the terminal block.

The contact lugs of the customized staggered jumpers contact the terminal blocks via the gaps created in the second jumper. Insert and press jumper into the jumper slot until it hits the backstop.



Staggered jumper 1 - 3 - 5 - 7

Marking with a felt-tip pen.

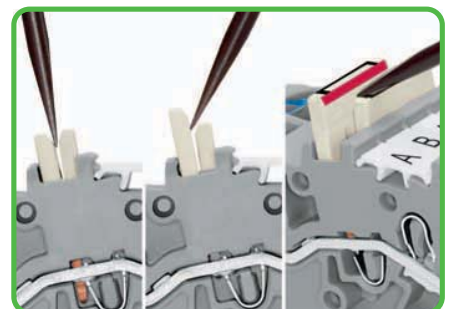


Locate red stripes of the staggered jumpers on the inside



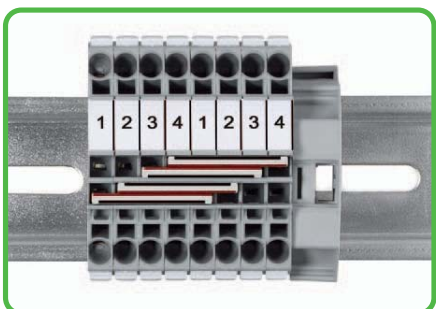
Jumpers staggered in a jumper slot

Custom staggered jumpers can be created, e.g., for bridging over a terminal block with a different potential. Make sure only one contact lug is in contact with the terminal block.



Staggered jumper removal

Insert the operating tool between the jumpers and lift up the jumper.



Staggered jumpers for sophisticated circuit requirements.

That way, staggered jumpers are created with contact lugs that will make contact to the terminal block in the gaps of the second jumper. Insert the ready-made jumper assembly into the jumper slot until it hits the stop.

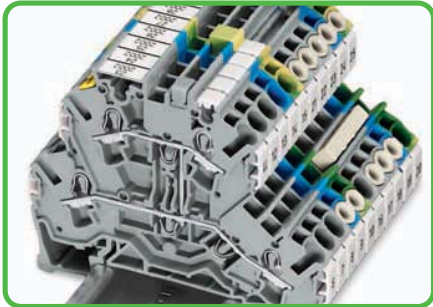
TOPJOB®
Vertical Jumpers
2002 Series

Double-deck vertical jumper
500 V/6 kV/3
I_N 24 A

Triple-deck vertical jumper
500 V/6 kV/3
I_N 24 A



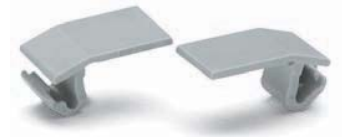
Item No.	Pack. Unit	Item No.	Pack. Unit
Double-deck vertical jumper, insulated		Triple-deck vertical jumper, insulated	
○ light gray	2002-492	100 (4x25)	○ light gray
			2002-493
			100 (4x25)



Double-deck vertical jumper, inserted.

Disconnect Plugs for Carrier Terminal Blocks and Lockout Caps

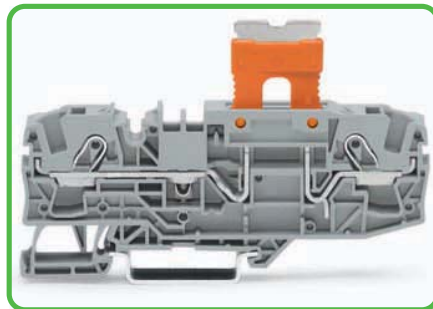
Disconnect plug for carrier terminal blocks 400 V/6 kV/3 I _N 10 A	Disconnect plug for carrier terminal blocks 800 V/8 kV/3 I _N 30 A	Lockout cap
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Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Disconnect plug for carrier terminal blocks, suited when using a carrier terminal block as disconnect terminal block		Disconnect plug for carrier terminal blocks, suited when using a carrier terminal block as disconnect terminal block		Lockout cap, for conductor entry hole and operating slot	
● orange	2002-401 100 (4x25)	● orange	2006-401 100 (4x25)	● gray	2006-191 25



Carrier terminal block with disconnect plug in operating position.



Carrier terminal block with disconnect plug in parked position.



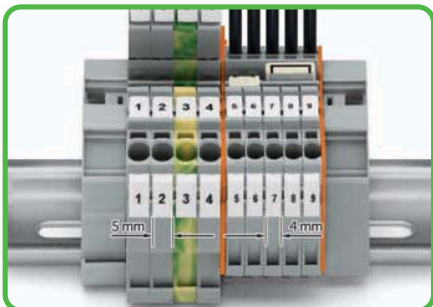
Lockout cap for covering unused clamping units of 2006 Series TOPJOB®S terminal blocks.

TOPJOB® **WMB Inline and Marking Strips**

WMB Inline	WMB Inline	Marking strip
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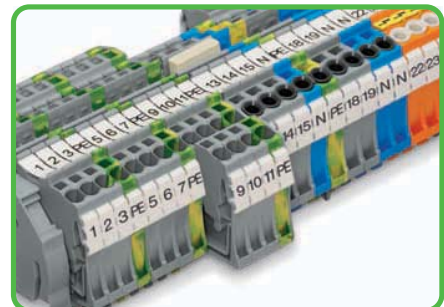
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
WMB Inline, plain, stretchable 4 - 4.2 mm, 2,000 WMB markers, 4 mm, on roll		WMB Inline, plain, stretchable 5 - 5.2 mm, 1,500 WMB markers, 5 mm, on roll		Marking strip, plain, 11 mm wide, white	
○ white	2009-114 1	○ white	2009-115 1	○ 50 m roll	2009-110 1
WMB Inline, plain, stretchable 5 - 5.2 mm, 8,000 WMB markers on roll					
	○ white	2009-135	1		



WMB Inline
2009-115 cards for 5 - 5.2 mm wide terminal blocks compared to 2009-114 cards for 4 - 4.2 mm wide terminal blocks



WMB Inline
WMB markers on roll

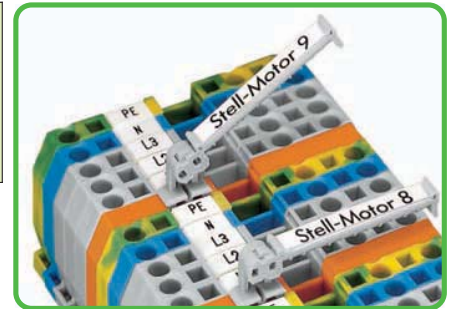


Marker strips for center marking

TOPJOB® S

Group Marker Carriers and Marker Carriers

Group marker carrier	Marker carrier
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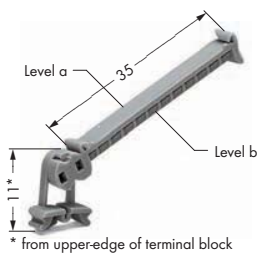
This pivoting group marker carrier has been developed for group marking of rail-mount terminal blocks to satisfy several customer requirements:

- Can be used in all multiprofile marker slots for rail-mount terminal blocks from 5 mm/0.197 in on or in spacer housings as shown above.
- Improves marking visibility due to difficult mounting conditions by pivoting into one of seven stable positions.

Item No.	Pack. Unit	Item No.	Pack. Unit
TOPJOB®S group marker carrier, snap-on type for jumper slot, gray		Marker carrier, for jumper slots 2002 Series, 5 mm wide	
○ 5 mm wide	2009-191 50 (2x25)	○ gray	2002-161 100 (4x25)
○ 10 mm wide	2009-192 50 (2x25)		
○ 15 mm wide	2009-193 50 (2x25)		
TOPJOB®S group marker carrier, snap-on type for jumper slot, gray			
○ 10 mm wide	2009-196 50 (2x25)		



Marking strip carriers
for use in jumper slots



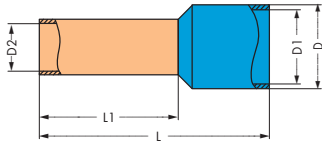
Item No.	Pack. Unit	Item No.	Pack. Unit
Pivoting group marker carrier		Marker carrier, for lateral marker receptacle, 5 mm wide	
○ gray	249-105 50 (2x25)	○ gray	2009-198 200 (8x25)
Marker card, 4 x 30 markers per sheet			
○ white	209-183 1		
Protection cover			
transparent	209-184 50		



Marking strip carriers
for use in lateral marker slots

TOPJOB® Ferrules for Rail-Mounted Terminal Blocks and Crimping Tools










Ferrule, insulated, tin-plated, electrolytic copper, gastight crimped	Variocrimp 4 crimping tool for insulated and uninsulated ferrules 0.25 mm ² - 4 mm ² /AWG 24 - 12	Variocrimp 16 crimping tool for insulated and uninsulated ferrules 6 mm ² - 16 mm ² /AWG 10 - 6
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Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Ferrule, insulated, according to DIN 46228, part 4/09.90		Variocrimp 4 crimping tool, 0.25 mm ² - 4 mm ² /AWG 24 - 12		Variocrimp 16 crimping tool, 6 mm ² - 16 mm ² /AWG 10 - 6	
○ white	216-241 1000	206-204	1	206-216	1
○ gray	216-242 1000				
○ gray	216-262 1000				
● red	216-243 1000				
● red	216-263 1000				
● black	216-244 1000				
● black	216-264 1000				
● black	216-284 1000				
● blue	216-246 1000				
● blue	216-266 1000				
● blue	216-286 1000				
○ gray	216-267 1000				
○ gray	216-287 500				
● yellow	216-208 100				
● yellow	216-288 500				
● blue	216-289 500				
● blue	216-210 100				

Ferrules

Technical Data

Ferrule, insulated,  sleeve for 0.5 mm ² /AWG 22, 12 mm strip length, L: 16 mm, L1: 10 mm, D: 3.1 mm, D1: 2.6 mm, D2: 1 mm white 216-241 1000	Ferrule, insulated,  sleeve for 1 mm ² /AWG 18, 12 mm strip length, L: 16 mm, L1: 10 mm, D: 3.5 mm, D1: 3 mm, D2: 1.4 mm red 216-243 1000	Ferrule, insulated,  sleeve for 1.5 mm ² /AWG 16, 14 mm strip length, L: 18 mm, L1: 12 mm, D: 4 mm, D1: 3.5 mm, D2: 1.7 mm black 216-264 1000
Ferrule, insulated,  sleeve for 0.75 mm ² /AWG 20, 12 mm strip length, L: 16 mm, L1: 10 mm, D: 3.3 mm, D1: 2.8 mm, D2: 1.2 mm gray 216-242 1000	Ferrule, insulated,  sleeve for 1 mm ² /AWG 18, 14 mm strip length, L: 18 mm, L1: 12 mm, D: 3.5 mm, D1: 3 mm, D2: 1.4 mm red 216-263 1000	Ferrule, insulated,  sleeve for 1.5 mm ² /AWG 16, 20 mm strip length, L: 24 mm, L1: 18 mm, D: 4 mm, D1: 3.5 mm, D2: 1.7 mm black 216-284 1000
Ferrule, insulated,  sleeve for 0.75 mm ² /AWG 20, 14 mm strip length, L: 18 mm, L1: 12 mm, D: 3.3 mm, D1: 2.8 mm, D2: 1.2 mm gray 216-262 1000	Ferrule, insulated,  sleeve for 1.5 mm ² /AWG 16, 12 mm strip length, L: 16 mm, L1: 10 mm, D: 4 mm, D1: 3.5 mm, D2: 1.7 mm black 216-244 1000	Ferrule, insulated,  sleeve for 2.5 mm ² /AWG 14, 12 mm strip length, L: 17 mm, L1: 10 mm, D: 4.7 mm, D1: 4.2 mm, D2: 2.2 mm blue 216-246 1000



Insert ferruled conductor into crimping station.











Squeeze handles until ratchet mechanism is released.

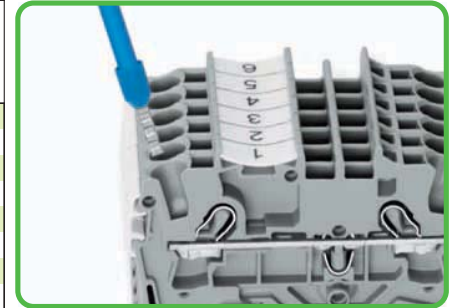
Application notes:

- With "Variocrimp 4," the built-in crimping pressure control automatically adjusts force to the conductor cross section used. With "Variocrimp 16," it is necessary to select the wire gauge on the tool before crimping.
- Only one crimping station is needed to handle the specified conductor size range.
- Uniform compact crimping from 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 gastight crimp connection.
- Crimping tools open automatically after crimping operation is complete.
- Comfortable handles for operator.

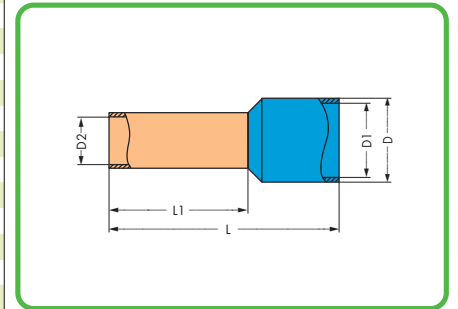
Ferrules

Technical Data

Ferrule, insulated,  sleeve for 2.5 mm ² /AWG 14, 14 mm strip length, L: 19 mm, L1: 12 mm, D: 4.7 mm, D1: 4.2 mm, D2: 2.2 mm blue 216-266 1000	Ferrule, insulated,  sleeve for 10 mm ² /AWG 8, 20 mm strip length, L: 28 mm, L1: 18 mm, D: 8.4 mm, D1: 7.6 mm, D2: 4.5 mm blue 216-289 500
Ferrule, insulated,  sleeve for 2.5 mm ² /AWG 14, 20 mm strip length, L: 25 mm, L1: 18 mm, D: 4.7 mm, D1: 4.2 mm, D2: 2.2 mm blue 216-286 1000	Ferrule, insulated,  sleeve for 16 mm ² /AWG 6, 23 mm strip length, L: 29 mm, L1: 18 mm, D: 9.6 mm, D1: 8.8 mm, D2: 5.8 mm blue 216-210 100
Ferrule, insulated,  sleeve for 4 mm ² /AWG 12, 14 mm strip length, L: 20 mm, L1: 12 mm, D: 5.4 mm, D1: 4.8 mm, D2: 2.8 mm gray 216-267 1000	
Ferrule, insulated,  sleeve for 4 mm ² /AWG 12, 20 mm strip length, L: 26 mm, L1: 18 mm, D: 5.4 mm, D1: 4.8 mm, D2: 2.8 mm gray 216-287 500	
Ferrule, insulated,  sleeve for 6 mm ² /AWG 10, 14 mm strip length, L: 20 mm, L1: 12 mm, D: 6.8 mm, D1: 6.2 mm, D2: 3.5 mm yellow 216-208 100	
Ferrule, insulated,  sleeve for 6 mm ² /AWG 10, 20 mm strip length, L: 26 mm, L1: 18 mm, D: 6.9 mm, D1: 6.3 mm, D2: 3.5 mm yellow 216-288 500	

**Stranded conductors with ferrules**

from at least two sizes below the rated cross section up to the rated cross section can be simply pushed in – without tools.



For dimensions of insulated ferrules, see technical data.