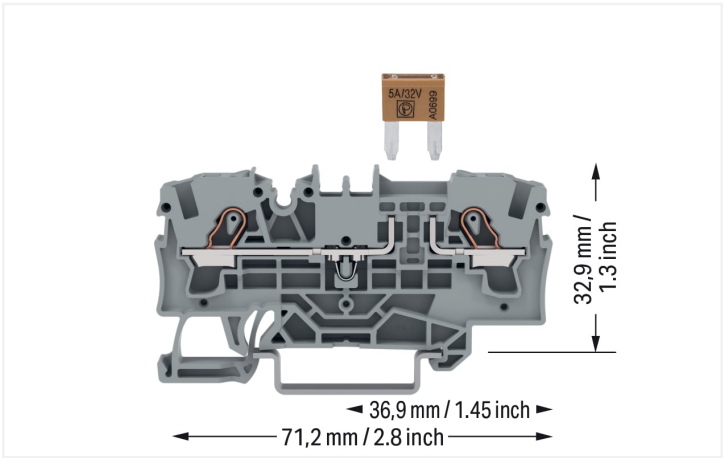
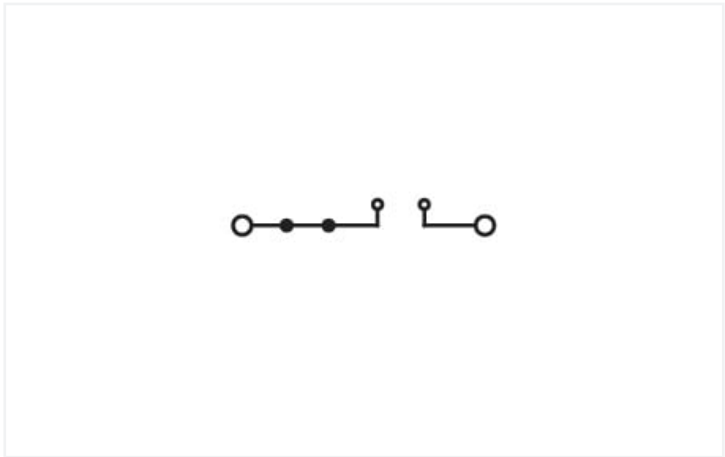
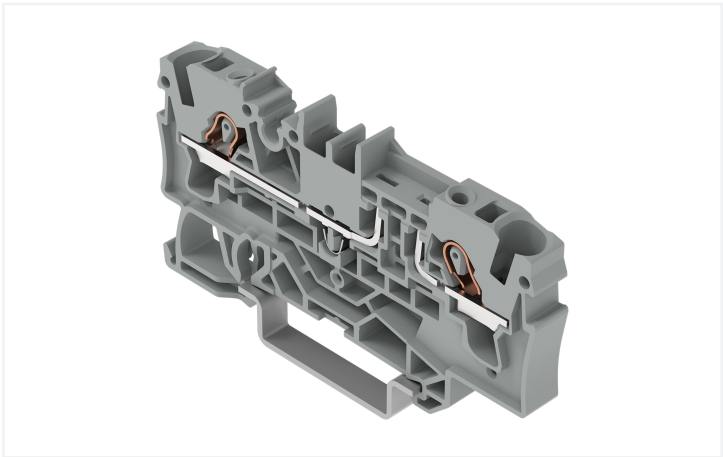
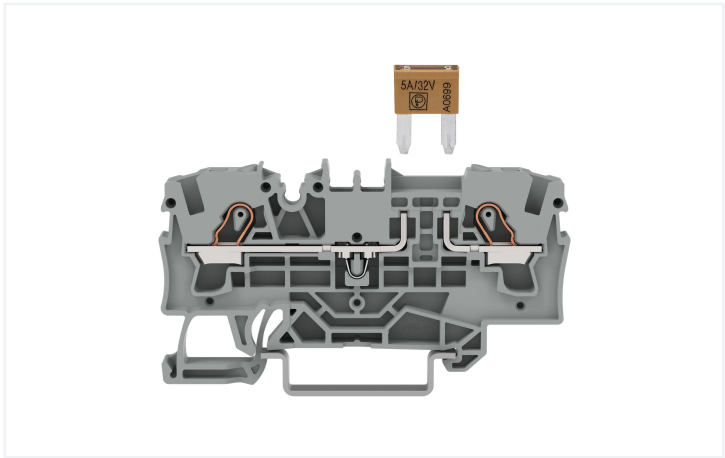


**Data Sheet | Item Number: 2004-1681**  
2-conductor fuse terminal block; for automotive blade-style fuses; with test option;  
without blown fuse indication; for DIN-rail 35 x 15 and 35 x 7.5; Push-in CAGE  
CLAMP®; 4,00 mm²; gray  
<https://www.wago.com/2004-1681>



Color: ■ gray



Similar to illustration

Electrical data				
Ratings per		IEC/EN 60947-7-3		
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Nominal voltage	500 V	-	-	
Rated surge voltage	6 kV	-	-	
Rated current	10 A	-	-	
Ratings per IEC/EN 2				
Rated current	10 A			
Power Loss				
Power loss, per pole (potential)	0.1 W			
Rated current I <sub>N</sub> for specified power loss	10 A			
Resistance value for specified, current-dependent power loss	0.001 Ω			
General information				
Fuse receptacle	pluggable			
Fuse type	Standard flat plug-in fuse; 19.1 x 5.1 x 18.5 mm			



Connection data			
Clamping units	2	Connection 1	
Total number of potentials	1	Connection technology	Push-in CAGE CLAMP®
Number of levels	1	Actuation type	Operating tool
Number of jumper slots	2	Connectable conductor materials	Copper
		Nominal cross-section	4 mm²
		Solid conductor	0.5 ... 6 mm² / 20 ... 10 AWG
		Solid conductor; push-in termination	1 ... 6 mm² / 14 ... 10 AWG
		Stranded conductor	0.5 ... 6 mm² / 20 ... 10 AWG
		Fine-stranded conductor	0.5 ... 6 mm² / 20 ... 10 AWG
		Fine-stranded conductor; with insulated ferrule	0.5 ... 4 mm² / 20 ... 12 AWG
		Fine-stranded conductor; with uninsulated ferrule	1.5 ... 4 mm² / 18 ... 12 AWG
		Fine-stranded conductor; with ferrule; push-in termination	1.5 ... 4 mm² / 18 ... 12 AWG
		Note (conductor cross-section)	Depending on the conductor characteristic, a conductor with a smaller cross-section can also be inserted via push-in termination.
		Strip length	11 ... 13 mm / 0.43 ... 0.51 inches
		Wiring direction	Front-entry wiring

Physical data	
Width	6.2 mm / 0.244 inches
Height	71.2 mm / 2.803 inches
Depth from upper-edge of DIN-rail	32.9 mm / 1.295 inches
Depth	44.2 mm / 1.74 inches

Mechanical data	
Mounting type	DIN-35 rail
Marking level	Center/side marking


Material data	
Note (material data)	<a href="#">Information on material specifications can be found here</a>
Color	gray
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.199 MJ
Weight	9.9 g

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



Commercial data	
PU (SPU)	50 pcs
Packaging type	Box
Country of origin	CN
GTIN	4066966574869
Customs tariff number	85369095000

Environmental Product Compliance	
RoHS Compliance Status	Compliant,No Exemption

Downloads	
Documentation	
Additional Information	
Technical Section	pdf 2246.92 KB 

1 Compatible Products
1.1 Required Accessories
1.1.1 End plate
1.1.1.1 End plate



[Item No.: 2004-1691](#)  
End and intermediate plate; 1 mm thick; gray



[Item No.: 2004-1692](#)  
End and intermediate plate; 1 mm thick; orange

1.2 Optional Accessories
1.2.1 DIN-rail
1.2.1.1 Mounting accessories



[Item No.: 210-196](#)  
Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslopped; similar to EN 60715; silver-colored



[Item No.: 210-198](#)  
Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslopped; according to EN 60715; copper-colored



[Item No.: 210-508](#)  
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slopped; galvanized; similar to EN 60715; silver-colored



[Item No.: 210-197](#)  
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slopped; similar to EN 60715; silver-colored



[Item No.: 210-506](#)  
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslopped; galvanized; similar to EN 60715; silver-colored



[Item No.: 210-114](#)  
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslopped; similar to EN 60715; silver-colored



[Item No.: 210-118](#)  
Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslopped; according to EN 60715; silver-colored



[Item No.: 210-115](#)  
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slopped; according to EN 60715; "Hole width 18 mm; silver-colored



[Item No.: 210-112](#)  
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slopped; according to EN 60715; "Hole width 25 mm; silver-colored



[Item No.: 210-504](#)  
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slopped; galvanized; according to EN 60715; silver-colored



[Item No.: 210-113](#)  
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslopped; according to EN 60715; silver-colored



[Item No.: 210-505](#)  
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslopped; galvanized; according to EN 60715; silver-colored

1.2.2 Ferrule

1.2.2.1 Ferrule



**Item No.: 216-262**  
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



**Item No.: 216-263**  
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red



**Item No.: 216-264**  
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black



**Item No.: 216-266**  
Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue



**Item No.: 216-267**  
Ferrule; Sleeve for 4 mm² / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray

1.2.3 Installation

1.2.3.1 Cover



**Item No.: 709-156**  
Cover; Type 3; suitable for cover carrier, type 3; 1 m long; transparent

1.2.3.2 Cover carrier



**Item No.: 709-169**  
Cover carrier; Type 3; incl. fixing/retaining screws and knurled nut; suitable for 279 to 282 and 880 Series rail-mounted terminal blocks; suitable for 264 Series miniature rail-mounted terminal blocks; suitable for 270 Series sensor and actuator terminal blocks; gray

1.2.4 Insulation stop

1.2.4.1 Insulation stop



**Item No.: 2004-171**  
Insulation stop; 0.25 - 0.5 mm²; 5 pieces/strip; light gray



**Item No.: 2004-172**  
Insulation stop; 0.75 - 1 mm²; 5 pieces/strip; dark gray



1.2.5 Jumper

1.2.5.1 Jumper



[Item No.: 2004-406/020-000](#)  
Delta jumper; insulated; light gray



[Item No.: 2004-410](#)  
Jumper; 10-way; insulated; light gray



[Item No.: 2004-402](#)  
Jumper; 2-way; insulated; light gray



[Item No.: 2004-403](#)  
Jumper; 3-way; insulated; light gray



[Item No.: 2004-404](#)  
Jumper; 4-way; insulated; light gray



[Item No.: 2004-405](#)  
Jumper; 5-way; insulated; light gray



[Item No.: 2004-406](#)  
Jumper; 6-way; insulated; light gray



[Item No.: 2004-407](#)  
Jumper; 7-way; insulated; light gray



[Item No.: 2004-408](#)  
Jumper; 8-way; insulated; light gray



[Item No.: 2004-409](#)  
Jumper; 9-way; insulated; light gray



[Item No.: 2004-440](#)  
Jumper; from 1 to 10; insulated; light gray



[Item No.: 2004-433](#)  
Jumper; from 1 to 3; insulated; light gray



[Item No.: 2004-434](#)  
Jumper; from 1 to 4; insulated; light gray



[Item No.: 2004-435](#)  
Jumper; from 1 to 5; insulated; light gray



[Item No.: 2004-436](#)  
Jumper; from 1 to 6; insulated; light gray



[Item No.: 2004-437](#)  
Jumper; from 1 to 7; insulated; light gray



[Item No.: 2004-438](#)  
Jumper; from 1 to 8; insulated; light gray



[Item No.: 2004-439](#)  
Jumper; from 1 to 9; insulated; light gray



[Item No.: 2004-405/011-000](#)  
Star point jumper; 3-way; insulated; light gray



[Item No.: 2006-499](#)  
Step-down jumper; from 2006/2004 to 2004/2002/2001 series; from 2206/2204 to 2204/2202/2201 series; insulated; light gray



[Item No.: 2016-499](#)  
Step-down jumper; from 2016/2010 to 2010/2006/2004/2002 series; from 2216/2210 to 2210/2206/2204/2202 series; insulated; light gray

1.2.6 Marking

1.2.6.1 Group marker carrier



[Item No.: 2009-191](#)  
Group marker carrier; gray



[Item No.: 2009-192](#)  
Group marker carrier; gray



[Item No.: 2009-193](#)  
Group marker carrier; 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



1.2.6.2 Marker



**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.: 793-5501/000-014**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; brown



**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



**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.: 2009-115/000-005**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red



**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 Marker carrier



**Item No.: 2009-198**  
Adaptor; gray



1.2.6.4 Marking strip



Item No.: 2009-110

Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white

1.2.7 Protective warning marker

1.2.7.1 Cover



Item No.: 2004-115

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

1.2.8 Screwless end stop

1.2.8.1 Mounting accessories



Item No.: 249-117

Screwless end stop; 10 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray



Item No.: 249-116

Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

1.2.9 Test and measurement

1.2.9.1 Testing accessories



Item No.: 2004-511

Modular TOPJOB®S connector; modular; for jumper contact slot; 1-pole; 4,00 mm²; gray



Item No.: 2004-552

Modular TOPJOB®S connector; modular; for jumper contact slot; 2-pole; 4,00 mm²; gray



Item No.: 2004-553

Modular TOPJOB®S connector; modular; for jumper contact slot; 3-pole; 4,00 mm²; gray



Item No.: 2004-554

Modular TOPJOB®S connector; modular; for jumper contact slot; 4-pole; 4,00 mm²; gray



Item No.: 2004-555

Modular TOPJOB®S connector; modular; for jumper contact slot; 5-pole; 4,00 mm²; gray



Item No.: 2004-549

Spacer module; modular; e.g., for bridging commoned terminal blocks; gray



Item No.: 2009-174

Test plug adapter; for 4 mm Ø test plugs; for testing TOPJOB®S rail-mounted terminal blocks; gray



Item No.: 2009-182

Testing tap; for max. 2.5 mm²; tool-free connection for individual test wires 0.08 - 2.5 mm; gray

1.2.10 Tool

1.2.10.1 Operating tool



Item No.: 210-658

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured

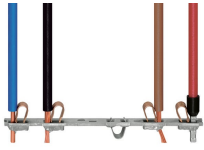


Item No.: 210-720

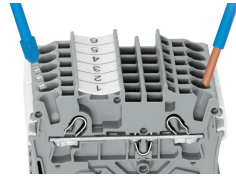
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

## Installation Notes

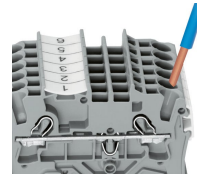
### Conductor termination



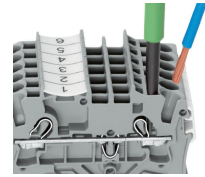
#### All conductor types at a glance



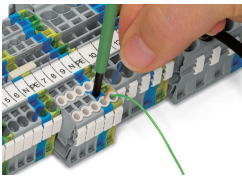
Push-in termination of solid and ferruled conductors



**Inserting a conductor 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.

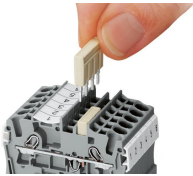


**Inserting a conductor via operating tool:**  
Connecting fine-stranded conductors without ferrules, or small cross-sectional conductors that cannot be pushed in, is performed similarly to the original CAGE CLAMP® – just use an operating tool.  
**Advantage:**  
To open the clamp, the operating tool is inserted vertically. The conductor entry is less than 15 degrees for easier wiring.

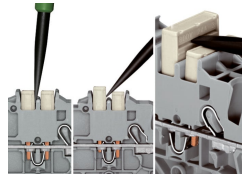


Conductor termination – insulation stop

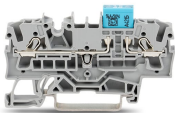
### Commoning



Insert push-in type jumper bar and push down until it hits backstop.



**Removing a push-in type jumper bar:**  
Insert the operating tool between the jumper and partition wall of the dual jumper slots, then lift up the jumper.  
Place the operating tool in the center of jumpers for up to five contacts (see above), or alternately on both sides for jumpers with more than five contacts.

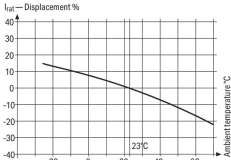
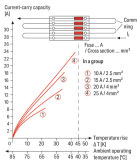
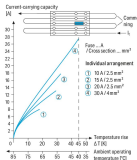


Selecting the correct fuse cartridge is important for product safety within applications, as well as for fuse cartridge service life and reliability. Fuse cartridges can operate perfectly as protection (break-off point) if they are properly selected and used according to manufacturer specifications.

Nominal current ratings for fuse cartridges are defined differently in international standards. This is why the recommended continuous current-carrying capacity of the fuses is a max. 80% of their nominal current according to DIN 72581/Part 3 (for a surrounding air temperature of 23°C).

**Concerning product safety, fuse cartridges must generally be tested under both normal and faulty operating conditions within your application.**





Information from the mini-automotive, blade-type fuse manufacturers		
Operating Temp. °C	%	F <sub>1</sub>
-25	14	0.871
-15	13	0.885
-5	12	0.899
5	11	0.913
15	10	0.927
25	9	0.941
35	8	0.955
45	7	0.969
55	6	0.983
65	5	0.997
75	4	1.011
85	3	1.025
95	2	1.039
105	1	1.053
115	0	1.067
125	-1	1.081
135	-2	1.095
145	-3	1.109
155	-4	1.123
165	-5	1.137
175	-6	1.151
185	-7	1.165
195	-8	1.179
205	-9	1.193
215	-10	1.207
225	-11	1.221

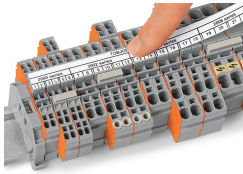
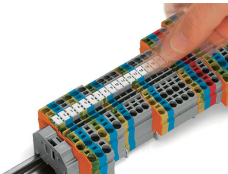
**Application Notes on Terminal Blocks for Glass Cartridge Fuses**  
Diagram: "Individual Arrangement"

**Application Notes on Terminal Blocks for Glass Cartridge Fuses**  
Diagram: "Block Arrangement"

**Application Notes on Terminal Blocks for Glass Cartridge Fuses**  
Nominal current ratings for fuse cartridges are defined differently in international standards. This is why the recommended continuous current-carrying capacity of the fuses is a max. 80% of their nominal current according to DIN 72581/ Part 3 (for a surrounding air temperature of 23°C).  
Selecting the correct fuse cartridge is important for product safety within applications, as well as for fuse cartridge service life and reliability. Fuse cartridges will only operate perfectly as protection components (break-off point) if they are properly selected and used as intended (i.e., according to the state of the technology and valid specifications, as well as data sheet characteristics), according to basic safety requirements (i.e., persons, animals and property must be protected against hazards).

Concerning product safety, fuse cartridges must generally be tested under both normal and faulty operating conditions within your application.

**Marking**



Snapping WMB Inline markers into marker slots.