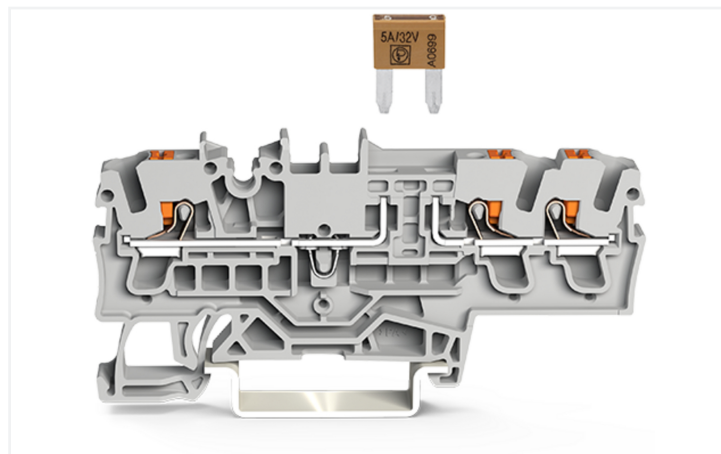
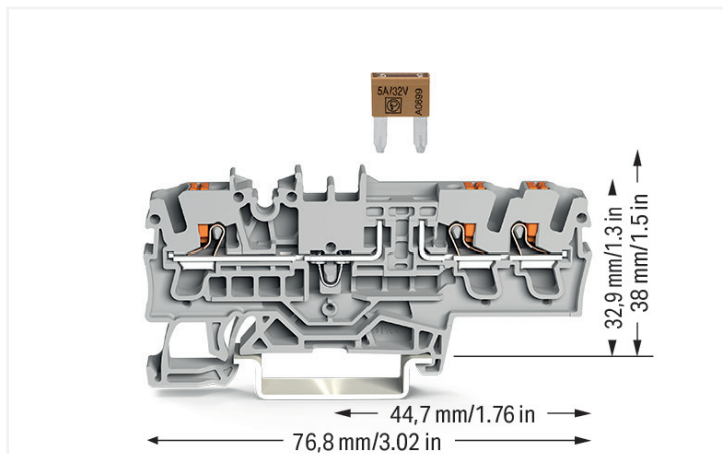


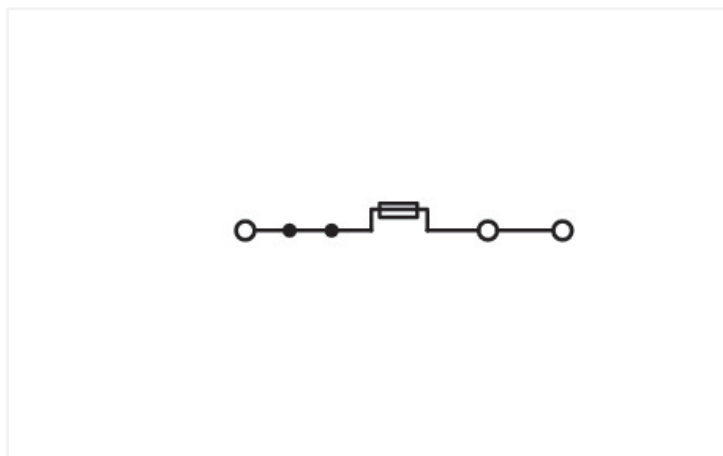
## Data Sheet | Item Number: 2202-1781

3-conductor fuse terminal block; for mini-automotive blade-style fuses; per DIN 7258-3f, ISO 8820-3; with test option; with push-button; without blown fuse indication; 2.5 mm<sup>2</sup>; Push-in CAGE CLAMP®; gray

<https://www.wago.com/2202-1781>



Color: ■ gray



Similar to illustration

### Fuse terminal block, 2202 Series, Push-in CAGE CLAMP®

This fuse terminal block (item number 2202-1781) is designed for easy and secure connections. Strip lengths must be between 10 and 12 mm when connecting conductors to this fuse terminal block. Featuring conductor terminals along with Push-in CAGE CLAMP®, this connector outperforms the competition. Push-in CAGE CLAMP® connection technology is ideal for connecting all conductor types. Both solid and fine-stranded conductors with ferrules can be inserted without needing to use any tools—all thanks to its pluggable design. Depending on the conductor type, this fuse terminal block is ideal for conductor cross sections ranging from 0.25 mm<sup>2</sup> to 4 mm<sup>2</sup>.

## Notes

## Safety Information

The 2 mm test slot is only approved for high impedance measurement up to max. 100 mA.

## Electrical data

Ratings per	IEC/EN 60947-7-3		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	400 V	-	-
Rated impulse withstand voltage	6 kV	-	-
Rated current	10 A	-	-

## Ratings per IEC/EN – Notes

Ratings (note) Electrical ratings are given by the fuse.

## Ratings per IEC/EN 2

Ratings (note)	Blade-style fuses: Observe touch-proof protection for 42 V and higher voltages!
	<ul style="list-style-type: none"> <li>• 10 A (individual arrangement)</li> <li>• 5 A (block arrangement)</li> </ul>

## Approvals per

## UL 1059

Use group	B	C	D
Rated voltage	300 V	300 V	-
Rated current	10 A	10 A	-

## Approvals per

## CSA 22.2 No 158

Use group	B	C	D
Rated voltage	300 V	300 V	-
Rated current	10 A	10 A	-

## General information

Fuse receptacle	pluggable
Fuse type	Mini flat plug-in fuse; 10.9 x 3.6 x 16.3 mm
Wiring direction	Front-entry wiring

## Connection Data

Clamping units	3
Total number of potentials	2
Number of levels	1
Number of jumper slots	2

## Connection 1

Connection technology	Push-in CAGE CLAMP®
Actuation type	Push-button
Connectable conductor materials	Copper
Nominal cross-section	2.5 mm <sup>2</sup>
Solid conductor	0.25 ... 4 mm <sup>2</sup> / 22 ... 12 AWG
Solid conductor; push-in termination	0.75 ... 4 mm <sup>2</sup> / 18 ... 12 AWG
Fine-stranded conductor	0.25 ... 4 mm <sup>2</sup> / 22 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 2.5 mm <sup>2</sup> / 22 ... 14 AWG
Fine-stranded conductor; with ferrule; push-in termination	1 ... 2.5 mm <sup>2</sup> / 18 ... 14 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	10 ... 12 mm / 0.39 ... 0.47 inches
Wiring direction	Front-entry wiring

### Physical data

Width	5.2 mm / 0.205 inches
Height	76.8 mm / 3.024 inches
Depth from upper-edge of DIN-rail	32.9 mm / 1.295 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	0.196 MJ
Actuator color	orange
Weight	8.3 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	DE
GTIN	4066966083095
Customs tariff number	85369095000

### Product Classification

UNSPSC	39121410
ETIM 9.0	EC000899
ETIM 10.0	EC000899
ECCN	NO US CLASSIFICATION

### Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
------------------------	-------------------------

Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
DEKRA DEKRA Certification B.V.	EN 60947	71-147887
UL Underwriters Laboratories Inc.	UL 1059	UL-CA- L45172-6189178-11508102-1

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 2202-1781



CAD/CAE-Data

CAD data

2D/3D Models  
2202-1781



1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate



[Item No.: 2002-1791](#)

End and intermediate plate; 1 mm thick; gray

[Item No.: 2002-1792](#)

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; unslotted; similar to EN 60715; silver-colored



[Item No.: 210-198](#)

Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored



[Item No.: 210-508](#)

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; 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; slotted; similar to EN 60715; silver-colored



[Item No.: 210-506](#)

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; 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; unslotted; similar to EN 60715; silver-colored



[Item No.: 210-118](#)

Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored



[Item No.: 210-115](#)

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm; silver-colored

1.2.1.1 Mounting accessories



**Item No.: 210-112**  
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; 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; slotted; 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; unslotted; according to EN 60715; silver-colored



**Item No.: 210-505**  
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715; silver-colored

1.2.2 Ferrule

1.2.2.1 Ferrule



**Item No.: 216-241**  
Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white



**Item No.: 216-242**  
Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



**Item No.: 216-262**  
Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



**Item No.: 216-243**  
Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red



**Item No.: 216-263**  
Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red



**Item No.: 216-244**  
Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black



**Item No.: 216-264**  
Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black



**Item No.: 216-246**  
Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue



**Item No.: 216-266**  
Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue

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.: [2002-171](#)

Insulation stop; 0.25 - 0.5 mm<sup>2</sup>; 5 pieces/strip; light gray

Item No.: [2002-172](#)

Insulation stop; 0.75 - 1 mm<sup>2</sup>; 5 pieces/strip; dark gray

1.2.5 Jumper

1.2.5.1 Jumper



Item No.: [2002-400](#)

Continuous jumper; 2-way; insulated; light gray



Item No.: [2002-413](#)

Continuous jumper; 3-way; insulated; light gray



Item No.: [2002-415](#)

Continuous jumper; 5-way; insulated; light gray



Item No.: [2002-423/000-006](#)

Continuous jumper; from 1 to 3; insulated; blue



Item No.: [2002-423](#)

Continuous jumper; from 1 to 3; insulated; light gray



Item No.: [2002-423/000-005](#)

Continuous jumper; from 1 to 3; insulated; red



Item No.: [2002-424/000-006](#)

Continuous jumper; from 1 to 4; insulated; blue



Item No.: [2002-424](#)

Continuous jumper; from 1 to 4; insulated; light gray



Item No.: [2002-424/000-005](#)

Continuous jumper; from 1 to 4; insulated; red



Item No.: [2002-406/020-000](#)

Delta jumper; insulated; light gray



Item No.: [2002-410/000-006](#)

Jumper; 10-way; insulated; blue



Item No.: [2002-410](#)

Jumper; 10-way; insulated; light gray



Item No.: [2002-410/000-005](#)

Jumper; 10-way; insulated; red



Item No.: [2002-402/000-006](#)

Jumper; 2-way; insulated; blue



Item No.: [2002-402](#)

Jumper; 2-way; insulated; light gray



Item No.: [2002-402/000-005](#)

Jumper; 2-way; insulated; red



Item No.: [2002-403/000-006](#)

Jumper; 3-way; insulated; blue



Item No.: [2002-403](#)

Jumper; 3-way; insulated; light gray



Item No.: [2002-403/000-005](#)

Jumper; 3-way; insulated; red



Item No.: [2002-404/000-006](#)

Jumper; 4-way; insulated; blue



Item No.: [2002-404](#)

Jumper; 4-way; insulated; light gray



Item No.: [2002-404/000-005](#)

Jumper; 4-way; insulated; red



Item No.: [2002-405/000-006](#)

Jumper; 5-way; insulated; blue



Item No.: [2002-405](#)

Jumper; 5-way; insulated; light gray



Item No.: [2002-405/000-005](#)

Jumper; 5-way; insulated; red



Item No.: [2002-406/000-006](#)

Jumper; 6-way; insulated; blue



Item No.: [2002-406](#)

Jumper; 6-way; insulated; light gray



Item No.: [2002-406/000-005](#)

Jumper; 6-way; insulated; red



Item No.: [2002-407/000-006](#)

Jumper; 7-way; insulated; blue



Item No.: [2002-407](#)

Jumper; 7-way; insulated; light gray



Item No.: [2002-407/000-005](#)

Jumper; 7-way; insulated; red



Item No.: [2002-408/000-006](#)

Jumper; 8-way; insulated; blue



Item No.: [2002-408](#)

Jumper; 8-way; insulated; light gray



Item No.: [2002-408/000-005](#)

Jumper; 8-way; insulated; red



Item No.: [2002-409/000-006](#)

Jumper; 9-way; insulated; blue



Item No.: [2002-409](#)

Jumper; 9-way; insulated; light gray



Item No.: [2002-409/000-005](#)

Jumper; 9-way; insulated; red



Item No.: [2002-440](#)

Jumper; from 1 to 10; insulated; light gray



Item No.: [2002-433](#)

Jumper; from 1 to 3; insulated; light gray



Item No.: [2002-434](#)

Jumper; from 1 to 4; insulated; light gray



Item No.: [2002-435](#)

Jumper; from 1 to 5; insulated; light gray



Item No.: [2002-436](#)

Jumper; from 1 to 6; insulated; light gray



Item No.: [2002-437](#)

Jumper; from 1 to 7; insulated; light gray



Item No.: [2002-438](#)




Jumper; from 1 to 8; insulated; light gray

1.2.5.1 Jumper





















 <p><b>Item No.: 2002-439</b> Jumper; from 1 to 9; insulated; light gray</p>	 <p><b>Item No.: 2002-480</b> Staggered jumper; 10-way; insulated; light gray</p>	 <p><b>Item No.: 2002-481</b> Staggered jumper; 11-way; insulated; light gray</p>	 <p><b>Item No.: 2002-482</b> Staggered jumper; 12-way; insulated; light gray</p>
 <p><b>Item No.: 2002-473/011-000</b> Staggered jumper; 2-way; from 1 to 3; insulated; light gray</p>	 <p><b>Item No.: 2002-472</b> Staggered jumper; 2-way; insulated; light gray</p>	 <p><b>Item No.: 2002-473</b> Staggered jumper; 3-way; insulated; light gray</p>	 <p><b>Item No.: 2002-475/011-000</b> Staggered jumper; 3-way; insulated; light gray</p>
 <p><b>Item No.: 2002-474</b> Staggered jumper; 4-way; insulated; light gray</p>	 <p><b>Item No.: 2002-475</b> Staggered jumper; 5-way; insulated; light gray</p>	 <p><b>Item No.: 2002-476</b> Staggered jumper; 6-way; insulated; light gray</p>	 <p><b>Item No.: 2002-477</b> Staggered jumper; 7-way; insulated; light gray</p>
 <p><b>Item No.: 2002-478</b> Staggered jumper; 8-way; insulated; light gray</p>	 <p><b>Item No.: 2002-479</b> Staggered jumper; 9-way; insulated; light gray</p>	 <p><b>Item No.: 2002-477/011-000</b> Staggered jumper; insulated; light gray</p>	 <p><b>Item No.: 2002-479/011-000</b> Staggered jumper; insulated; light gray</p>
 <p><b>Item No.: 2002-481/011-000</b> Staggered jumper; insulated; light gray</p>	 <p><b>Item No.: 2002-405/011-000</b> Star point jumper; 3-way; insulated; light gray</p>	 <p><b>Item No.: 210-103</b> Wire commoning chain; insulated; black</p>	 <p><b>Item No.: 210-123</b> Wire commoning chain; insulated; blue</p>

1.2.6 Marking

1.2.6.1 Group marker carrier

 <p><b>Item No.: 2009-191</b> Group marker carrier; gray</p>	 <p><b>Item No.: 2009-192</b> Group marker carrier; gray</p>	 <p><b>Item No.: 2009-193</b> Group marker carrier; gray</p>
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1.2.6.2 Marker

 <p><b>Item No.: 2009-145/000-006</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue</p>	 <p><b>Item No.: 2009-145/000-007</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray</p>	 <p><b>Item No.: 2009-145/000-023</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green</p>	 <p><b>Item No.: 2009-145/000-012</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange</p>
 <p><b>Item No.: 2009-145/000-005</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red</p>	 <p><b>Item No.: 2009-145/000-024</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet</p>	 <p><b>Item No.: 2009-145</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white</p>	 <p><b>Item No.: 2009-145/000-002</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow</p>
 <p><b>Item No.: 248-501/000-006</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue</p>	 <p><b>Item No.: 248-501/000-007</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray</p>	 <p><b>Item No.: 248-501/000-023</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green</p>	 <p><b>Item No.: 248-501/000-017</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green</p>
 <p><b>Item No.: 248-501/000-012</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange</p>	 <p><b>Item No.: 248-501/000-005</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red</p>	 <p><b>Item No.: 248-501/000-024</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet</p>	 <p><b>Item No.: 248-501</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white</p>
 <p><b>Item No.: 248-501/000-002</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow</p>	 <p><b>Item No.: 793-5501/000-006</b> WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; blue</p>	 <p><b>Item No.: 793-5501/000-014</b> WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; brown</p>	 <p><b>Item No.: 793-5501/000-007</b> WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; gray</p>

1.2.6.2 Marker



**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.: 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.: 2002-121**  
Adaptor; gray



**Item No.: 2002-161**  
Adaptor; gray



**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 Push-in type wire jumper

1.2.7.1 Jumper



**Item No.: 2009-414**  
Push-in type wire jumper; 1.5 mm<sup>2</sup>; insulated; 110 mm long; black



**Item No.: 2009-414/000-005**  
Push-in type wire jumper; 1.5 mm<sup>2</sup>; insulated; 110 mm long; black



**Item No.: 2009-416**  
Push-in type wire jumper; 1.5 mm<sup>2</sup>; insulated; 250 mm long; black



**Item No.: 2009-414/000-006**  
Push-in type wire jumper; insulated; 110 mm long; black



**Item No.: 2009-412**  
Push-in type wire jumper; insulated; 60 mm long; black

## 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.: 2002-560**

Modular TOPJOB®S connector; modular; for jumper contact slot; 10-pole; gray



**Item No.: 2002-511**

Modular TOPJOB®S connector; modular; for jumper contact slot; 1-pole; gray



**Item No.: 2002-552**

Modular TOPJOB®S connector; modular; for jumper contact slot; 2-pole; gray



**Item No.: 2002-553**

Modular TOPJOB®S connector; modular; for jumper contact slot; 3-pole; gray



**Item No.: 2002-554**

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



**Item No.: 2002-555**

Modular TOPJOB®S connector; modular; for jumper contact slot; 5-pole; gray



**Item No.: 2002-556**

Modular TOPJOB®S connector; modular; for jumper contact slot; 6-pole; gray



**Item No.: 2002-557**

Modular TOPJOB®S connector; modular; for jumper contact slot; 7-pole; gray



**Item No.: 2002-558**

Modular TOPJOB®S connector; modular; for jumper contact slot; 8-pole; gray



**Item No.: 2002-559**

Modular TOPJOB®S connector; modular; for jumper contact slot; 9-pole; gray



**Item No.: 2002-549**

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.: 210-136**

Test plug; 2 mm Ø; with 500 mm cable; red



**Item No.: 2009-182**

Testing tap; for max. 2.5 mm<sup>2</sup>; tool-free connection for individual test wires 0.08 - 2.5 mm; gray



**Item No.: 2002-649**

TOPJOB®S L-type spacer module; modular; e.g., for bridging commoned terminal blocks; 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

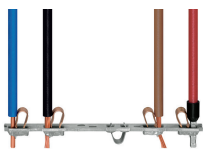


**Item No.: 210-720**

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



Push-in termination of solid and ferruled conductors



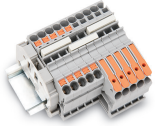
Insert fine-stranded conductors via operating tool.

**Conductor termination**

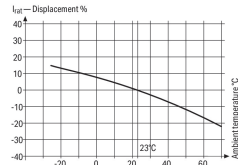
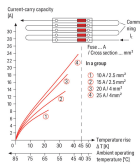
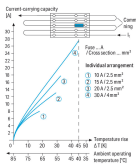


Removing all conductors via operating tool.

**Commoning**



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



Information from the mini-automotive, blade-type fuse manufacturers

Temp °C	Displacement %	F <sub>T</sub>
14	14	0.877
20	12	0.885
15	12	0.893
10	11	0.901
5	10	0.909
0	9	0.917
-5	8	0.925
-10	7	0.933
-15	6	0.941
-20	5	0.949
-25	4	0.957
-30	3	0.965
-35	2	0.973
-40	1	0.981
23	0	1.000
30	-1	1.020
35	-2	1.042
40	-3	1.064
45	-4	1.087
50	-5	1.111
55	-6	1.135
60	-7	1.160
65	-8	1.185
70	-9	1.210
75	-10	1.232

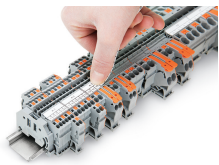
**Application Notes on Terminal Blocks for Glass Cartridge Fuses**  
Diagram: "Individual Arrangement"

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

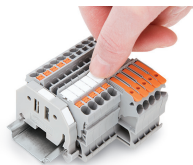
**Application Notes on Terminal Blocks for Glass Cartridge Fuses**  
Nominal current ratings for fuse cartridges are defined differently in international standards. This is why the recommended continuous current-carrying capacity of the fuses is a max. 80% of their nominal current according to DIN 72581/Part 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 a marking strip into a marker slot.



Snapping a marking strip into the marker slot.