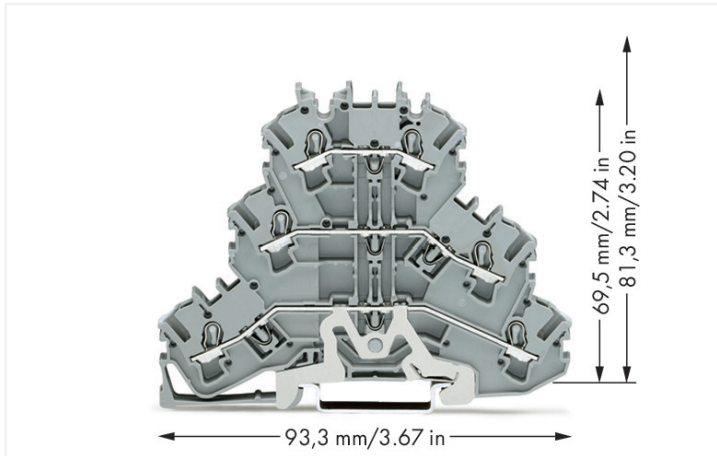


## Data Sheet | Item Number: 2002-3228

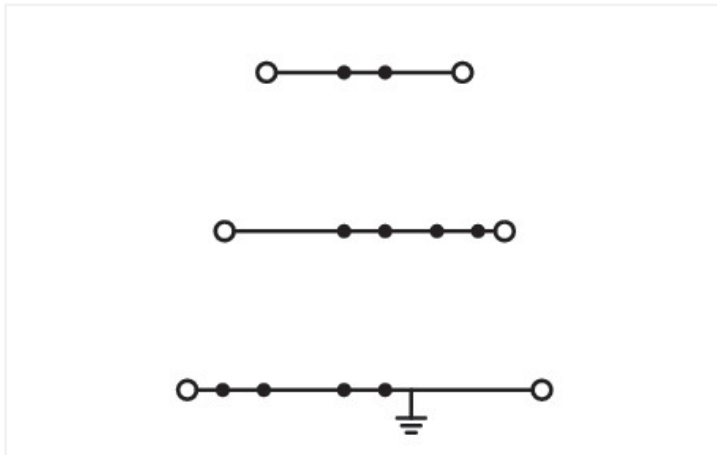
Triple-deck terminal block; Shield/through/through terminal block; 2.5 mm<sup>2</sup>; Shielding/L/L; without marker carrier; for DIN-rail 35 x 15 and 35 x 7.5; Push-in CAGE CLAMP®; 2,50 mm<sup>2</sup>; gray



<https://www.wago.com/2002-3228>



Color: ■ gray



Similar to illustration

Triple-deck terminal block, 2002 Series, gray

Our triple-deck terminal block (item number 2002-3228) simplifies electrical installations. Strip lengths must be between 10 and 12 mm when connecting conductors to this triple-deck terminal block. The triple-deck terminal block also functions as a shield terminal block as well as a through terminal block. This product features conductor terminals and utilizes Push-in CAGE CLAMP®. Our Push-in CAGE CLAMP® is a universal, maintenance-free connection solution for all conductor types, featuring a winning design: both solid and fine-stranded conductors with ferrules can be directly inserted without the need for tools or any preparation, such as crimping the ferrule. This triple-deck terminal block is suitable for conductor cross sections ranging from 0.25 mm<sup>2</sup> to 4 mm<sup>2</sup>.

### Electrical data

Ratings per	IEC/EN 60947-7-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	500 V	-	-
Rated impulse withstand voltage	6 kV	-	-
Rated current	24 A	-	-

Ratings per	IEC/EN 60947-7-1		
Current at conductor cross-section (max.) mm <sup>2</sup>	28 A	-	-

Approvals per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	300 V	600 V
Rated current	20 A	20 A	5 A

Approvals per	CSA 22.2 No 158		
Use group	B	C	D
Rated voltage	300 V	300 V	-
Rated current	20 A	20 A	-

Power Loss	
Power loss, per pole (potential)	2.2982 W
Rated current $I_N$ for power loss specification	24 A
Resistance value for specified, current-dependent power loss	0.00133 $\Omega$

General information	
Wiring direction	Front-entry wiring

## Connection Data

Clamping units	6
Total number of potentials	3
Number of levels	3
Number of jumper slots	6

Connection 1	
Connection technology	Push-in CAGE CLAMP®
Number of connection points	3
Actuation type	Operating tool
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

Connection 2	
Number of connection points	3

## Physical data

Width	5.2 mm / 0.205 inches
Height	93.3 mm / 3.673 inches
Depth from upper-edge of DIN-rail	69.5 mm / 2.736 inches

## Mechanical data

Potential marking	Shield/L/L
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	0.307 MJ
Weight	19.7 g

## Environmental requirements

Processing temperature	-35 ... +85 °C	<b>Environmental Testing</b>
Continuous operating temperature	-60 ... +105 °C	
Test specification:	Railway applications – Rolling stock – Electronic equipment	DIN EN 50155 (VDE 0115-200):2022-06
Test procedure:	Railway applications – Rolling stock equipment – Vibration and shock tests	DIN EN 61373 (VDE 0115-0106):2011-04
Spectrum/Mounting location		Service life test, Category 1, Class A/B
Functional test with noise-like oscillations		Test passed according to Section 8 of the standard
Frequency		$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
Acceleration		0.101g (highest test level used for all axes)
Test duration per axis		10 min.
Test directions		X, Y and Z axes
Monitoring of contact faults and interruptions		Passed
Voltage drop measurement before and after each axis		Passed
Simulated service life test through increased levels of noise-like oscillations		Test passed according to Section 9 of the standard
Frequency		$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
Acceleration		0.572g (highest test level used for all axes)
Test duration per axis		5 h
Test directions		X, Y and Z axes
Extended testing: Monitoring of contact faults and interruptions		Passed
Extended testing: Voltage drop measurement before and after each axis		Passed
Shock test		Test passed according to Section 10 of the standard
Shock pulse form		Half sine
Acceleration		5g (highest test level used for all axes)
Shock duration		30 ms
Number of shocks (per axis)		3 pos. und 3 neg.
Test directions		X, Y and Z axes
Extended testing: Monitoring of contact faults and interruptions		Passed
Extended testing: Voltage drop measurement before and after each axis		Passed
Vibration and shock stress for rolling stock equipment		Passed

### Commercial data

Product Group	22 (TOPJOB S)
PU (SPU)	50 pcs
Packaging type	Box
Country of origin	DE
GTIN	4044918691260
Customs tariff number	85369010000

### Product Classification

UNSPSC	39121410
eCl@ss 10.0	27-14-11-41
eCl@ss 9.0	27-14-11-41
ETIM 9.0	EC000901
ETIM 10.0	EC000901
ECCN	NO US CLASSIFICATION

### Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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### Approvals / Certificates

#### General approvals



Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947	NTR NL-8054
CSA CSA Group	C22.2 No. 158	154112
DEKRA DEKRA Certification B.V.	EN 60947	71-149763
KEMA/KEUR DEKRA Certification B.V.	EN 60947	71-124163
UL Underwriters Laboratories Inc.	UL 1059	E45172

#### Declarations of conformity and manufacturer's declarations



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

### Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Shipping	EN 60947	24-0152298-PDA
DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2
LR Lloyds Register	EN 60947	LR23325966TA
PRS Polski Rejestr Statków	-	TE/1094/880590/23

**Downloads**

**Environmental Product Compliance**

**Compliance Search**

Environmental Product Compliance 2002-3228



**Documentation**

**Bid Text**

2002-3228	18.04.2019	xml 4.06 KB	
2002-3228	18.04.2019	docx 15.34 KB	

**CAD/CAE-Data**

**CAD data**

2D/3D Models  
2002-3228



**CAE data**

EPLAN Data Portal  
2002-3228



WSCAD Universe  
2002-3228



ZUKEN Portal  
2002-3228



**1 Compatible Products**

**1.1 Required Accessories**

**1.1.1 End plate**

**1.1.1.1 End plate**



**Item No.: 2002-3291**

End and intermediate plate; 0.8 mm thick; gray

**Item No.: 2002-3292**

End and intermediate plate; 0.8 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 mm²; 5 pieces/strip; light gray



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

Insulation stop; 0.75 - 1 mm²; 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











 <b>Item No.: 2002-439</b> Jumper; from 1 to 9; insulated; light gray	 <b>Item No.: 2002-480</b> Staggered jumper; 10-way; insulated; light gray	 <b>Item No.: 2002-481</b> Staggered jumper; 11-way; insulated; light gray	 <b>Item No.: 2002-482</b> Staggered jumper; 12-way; insulated; light gray
 <b>Item No.: 2002-473/011-000</b> Staggered jumper; 2-way; from 1 to 3; insulated; light gray	 <b>Item No.: 2002-472</b> Staggered jumper; 2-way; insulated; light gray	 <b>Item No.: 2002-473</b> Staggered jumper; 3-way; insulated; light gray	 <b>Item No.: 2002-475/011-000</b> Staggered jumper; 3-way; insulated; light gray
 <b>Item No.: 2002-474</b> Staggered jumper; 4-way; insulated; light gray	 <b>Item No.: 2002-475</b> Staggered jumper; 5-way; insulated; light gray	 <b>Item No.: 2002-476</b> Staggered jumper; 6-way; insulated; light gray	 <b>Item No.: 2002-477</b> Staggered jumper; 7-way; insulated; light gray
 <b>Item No.: 2002-478</b> Staggered jumper; 8-way; insulated; light gray	 <b>Item No.: 2002-479</b> Staggered jumper; 9-way; insulated; light gray	 <b>Item No.: 2002-477/011-000</b> Staggered jumper; insulated; light gray	 <b>Item No.: 2002-479/011-000</b> Staggered jumper; insulated; light gray
 <b>Item No.: 2002-481/011-000</b> Staggered jumper; insulated; light gray	 <b>Item No.: 2002-405/011-000</b> Star point jumper; 3-way; insulated; light gray	 <b>Item No.: 2002-492</b> Vertical jumper; insulated; light gray	 <b>Item No.: 2002-493</b> Vertical jumper; insulated; light gray
 <b>Item No.: 2002-492/000-012</b> Vertical jumper; insulated; orange	 <b>Item No.: 210-103</b> Wire commoning chain; insulated; black	 <b>Item No.: 210-123</b> Wire commoning chain; insulated; blue	

1.2.6 Marking

1.2.6.1 Group marker carrier

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

 <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	 <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	 <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	 <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
 <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	 <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	 <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	 <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
 <b>Item No.: 248-501/000-006</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue	 <b>Item No.: 248-501/000-007</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray	 <b>Item No.: 248-501/000-023</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green	 <b>Item No.: 248-501/000-017</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green
 <b>Item No.: 248-501/000-012</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange	 <b>Item No.: 248-501/000-005</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red	 <b>Item No.: 248-501/000-024</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet	 <b>Item No.: 248-501</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white

1.2.6.2 Marker



**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.: 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.: 2002-131**  
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 Protective warning marker

1.2.7.1 Cover



**Item No.: 2002-115**  
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

## 1.2.8 Push-in type wire jumper

### 1.2.8.1 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

## 1.2.9 Screwless end stop

### 1.2.9.1 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

## 1.2.10 Test and measurement

### 1.2.10.1 Testing accessories



**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 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



**Item No.: 2002-611**

TOPJOB®S L-type test plug module; modular; 1-pole; gray

## 1.2.11 Tool

### 1.2.11.1 Operating tool



**Item No.: 210-658**

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

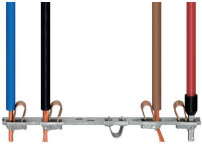


**Item No.: 210-720**

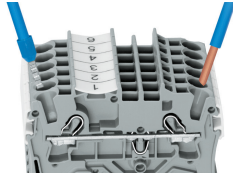
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

## Installation Notes

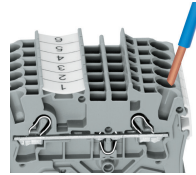
Conductor termination



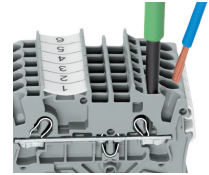
**All conductor types at a glance**



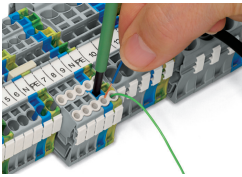
Push-in termination of solid and ferruled conductors



**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.

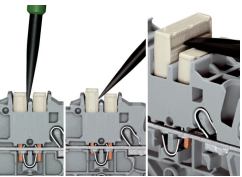


**Inserting a conductor via operating tool:**  
Connecting fine-stranded conductors without ferrules, or small cross-sectional conductors that cannot be pushed in, is performed similarly to the original CAGE CLAMP® – just use an operating tool.  
**Advantage:**  
To open the clamp, the operating tool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

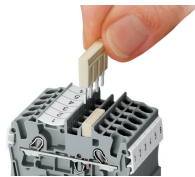


Conductor termination – insulation stop

Commoning



**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.

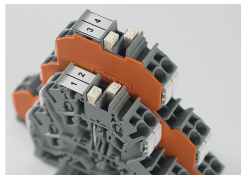


Insert push-in type jumper bar and push down until it hits backstop.

Commoning

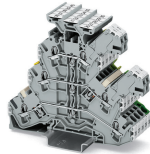
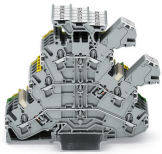


Commoning three levels via triple-deck vertical jumper (2002-493).



Created for double- and triple-deck TOPJOB® S Terminal Blocks, the vertical jumpers can common two or three levels. Clearly marked numerals ("2" and "3") distinguish the double-deck (Item No. 2002-0492) and triple-deck vertical jumpers (Item No. 2002-0493), even when inserted.

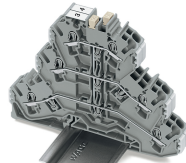
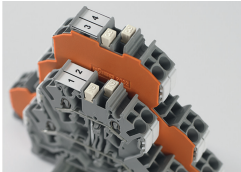
## Testing



L-type test plug modules fitted in a triple-deck terminal block

TOPJOB® S L-type test plugs for testing rail-mount terminal blocks via conductor entries

## Commoning



Created for double- and triple-deck TOPJOB® S Terminal Blocks, the vertical jumpers can common two or three levels. Clearly marked numerals ("2" and "3") distinguish the double-deck (Item No. 2002-0492) and triple-deck vertical jumpers (Item No. 2002-0493), even when inserted.

Commoning three levels via triple-deck vertical jumper (Item No. 2002-493).