

Color: orange



Similar to illustration

Electrical data

Ratings per			IEC/EN 60947-7-1		
Overvoltage category	III	III	II		
Pollution degree	3	2	2		
Nominal voltage	800 V	-	-		
Rated surge voltage	8 kV	-	-		
Rated current	24 A	-	-		
Current at conductor cross-section (max.) mm ²	32 A	-	-		

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

Approvals per			CSA 22.2 No 158		
Use group	B	C	D		
Rated voltage	600 V	600 V	-		
Rated current	20 A	20 A	-		

Ex information		
Reference hazardous areas		See application instructions in section "Knowledge and Downloads – Documentation – Additional Information: Technical Section; Technical Explications"
Ratings per		ATEX: PTB 03 ATEX 1162 U / IECEx: PTB 03.0004U (Ex eb IIC Gb)
Rated voltage EN (Ex e II)	550 V	
Rated current (Ex e II)	22 A	
Rated current (Ex e II) with jumper	20 A	

Power Loss

Power loss, per pole (potential)	0.7661 W
Rated current I_N for specified power loss	24 A
Resistance value for specified, current-dependent power loss	0.00133 Ω

Connection data

Connection points	3	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	2.5 mm ²
		Solid conductor	0.25 ... 4 mm ² / 22 ... 12 AWG
		Solid conductor; push-in termination	0.75 ... 4 mm ² / 18 ... 12 AWG
		Fine-stranded conductor	0.25 ... 4 mm ² / 22 ... 12 AWG
		Fine-stranded conductor; with insulated ferrule	0.25 ... 2.5 mm ² / 22 ... 14 AWG
		Fine-stranded conductor; with ferrule; push-in termination	1 ... 2.5 mm ² / 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	59.2 mm / 2.33 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)	Information on material specifications can be found here
Color	orange
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.129 MJ
Weight	5.9 g

Environmental requirements

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

Commercial data

Product Group	22 (TOPJOB S)
eCl@ss 10.0	27-14-11-20
eCl@ss 9.0	27-14-11-20
ETIM 8.0	EC000897
ETIM 7.0	EC000897
PU (SPU)	100 pcs
Packaging type	Box
Country of origin	DE
GTIN	4017332999267
Customs tariff number	85369010000

Environmental Product Compliance

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

Approvals / Certificates**General approvals**

Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947	NTR NL 7941
CSA DEKRA Certification B.V.	C22.2 No. 158	1536069
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
ATEX-Attestation of Conformity WAGO GmbH & Co. KG	-	-
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	20-HG1941090-PDA
BV Bureau Veritas S.A.	EN 60947	38586/B0 BV
DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2

Approvals for hazardous areas

Approval	Standard	Certificate Name
AEx Underwriters Laboratories Inc.	UL 60079	E185892 (AEx eb IIC resp. Ex eb IIC)
ATEX Physikalisch Technische Bundesanstalt	EN 60079	PTB 03 ATEX 1162 U (II2G Ex eb IIC Gb, IM2 Ex eb IMb)
CCC CNEX	GB/T 3836.3	2020312313000238 (Ex eb IIC Gb, Ex eb I Mb)
EAC Brijansker Zertifizierungsstelle	TP TC 012/2011	RU C-DE.AM02. B.00127/19 (Ex e IIC Gb U)
IECEx Physikalisch Technische Bundesanstalt	IEC 60079	IECEx PTB 03.0004U (Ex eb IIC Gb or Ex eb I Mb)

Approvals for hazardous areas

INMETRO
TÜV Rheinland do Brasil
Ltda.

IEC 60079

TÜV 12.1307 U

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product
Compliance 2002-1302

Documentation

Additional Information

Technical Section

pdf
2240.62 KB

Bid Text

2002-1302

29.04.2019

xml
4.15 KB

2002-1302

23.04.2019

docx
14.92 KB

CAD/CAE-Data

CAD data

2D/3D Models
2002-1302

CAE data

EPLAN Data Portal
2002-1302WSCAD Universe
2002-1302ZUKEN Portal
2002-1302

1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate

[Item No.: 2002-1391](#)End and intermediate plate; 0.8 mm thick;
gray[Item No.: 2002-1392](#)End and intermediate plate; 0.8 mm thick;
orange[Item No.: 209-191](#)Separator for Ex e/Ex i applications; 3 mm
thick; 120 mm wide; orange[Item No.: 2002-1393](#)Separator plate; 2 mm thick; oversized;
gray[Item No.: 2002-1394](#)Separator plate; 2 mm thick; oversized;
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



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 mm² / 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 mm² / 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 mm² / 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 mm² / 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 mm² / 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 mm² / 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 mm² / 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 mm² / 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 mm² / 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.: 2002-423/000-006

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

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

1.2.5.1 Jumper

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

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.: 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.: 2002-161](#)

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 Plug

1.2.7.1 Component module with diode

[Item No.: 2002-880/1000-411](#)

Component plug; 2-pole; with diode 1N4007; 10.4 mm wide; Operating temperature 85°C max.; gray

1.2.7.2 Component module with LED



[Item No.: 2002-880/1000-541](#)

Component plug; 2-pole; LED (red); 10.4 mm wide; Operating temperature 85°C max.; gray

[Item No.: 2002-880/1000-836](#)

Component plug; 2-pole; LED (red); 10.4 mm wide; Operating temperature 85°C max.; gray

[Item No.: 2002-880/1000-542](#)

Component plug; 2-pole; LED (red); 10.4 mm wide; Operating temperature 85°C max.; multicoloured

1.2.7.3 Empty component plug housing



[Item No.: 2002-880](#)

Empty component plug housing; 10.4 mm wide; 2-pole; Type 4; gray

1.2.8 Protective warning marker

1.2.8.1 Cover



[Item No.: 2002-115](#)

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

1.2.9 Push-in type wire jumper

1.2.9.1 Jumper



[Item No.: 2009-414](#)

Push-in type wire jumper; 1.5 mm²; insulated; 110 mm long; black

[Item No.: 2009-414/000-005](#)

Push-in type wire jumper; 1.5 mm²; insulated; 110 mm long; black

[Item No.: 2009-416](#)

Push-in type wire jumper; 1.5 mm²; 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

1.2.10 Screwless end stop

1.2.10.1 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

1.2.11 Test and measurement

1.2.11.1 Testing accessories

			
Item No.: 2002-560 Modular TOPJOB®S connector; modular; for jumper contact slot; 10-pole; 2,50 mm ² ; gray	Item No.: 2002-511 Modular TOPJOB®S connector; modular; for jumper contact slot; 1-pole; 2,50 mm ² ; gray	Item No.: 2002-552 Modular TOPJOB®S connector; modular; for jumper contact slot; 2-pole; 2,50 mm ² ; gray	Item No.: 2002-553 Modular TOPJOB®S connector; modular; for jumper contact slot; 3-pole; 2,50 mm ² ; gray
			
Item No.: 2002-554 Modular TOPJOB®S connector; modular; for jumper contact slot; 4-pole; 2,50 mm ² ; gray	Item No.: 2002-555 Modular TOPJOB®S connector; modular; for jumper contact slot; 5-pole; 2,50 mm ² ; gray	Item No.: 2002-556 Modular TOPJOB®S connector; modular; for jumper contact slot; 6-pole; 2,50 mm ² ; gray	Item No.: 2002-557 Modular TOPJOB®S connector; modular; for jumper contact slot; 7-pole; 2,50 mm ² ; gray
			
Item No.: 2002-558 Modular TOPJOB®S connector; modular; for jumper contact slot; 8-pole; 2,50 mm ² ; gray	Item No.: 2002-559 Modular TOPJOB®S connector; modular; for jumper contact slot; 9-pole; 2,50 mm ² ; 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.: 2009-182 Testing tap; for max. 2.5 mm ² ; 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; 2,50 mm ² ; gray	

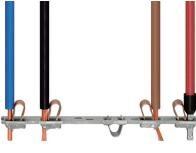
1.2.12 Tool

1.2.12.1 Operating tool

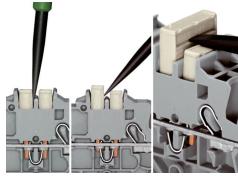
	
Item No.: 210-658 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured	Item No.: 210-720 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

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.

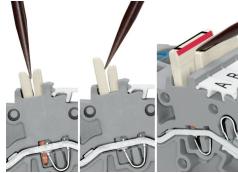
Commoning



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.

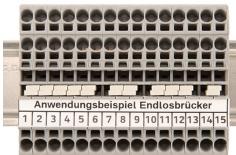
Commoning



Orient the staggered jumpers' red stripes on the inside.
Insert the staggered jumper and push down until it hits the backstop.

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

Commoning

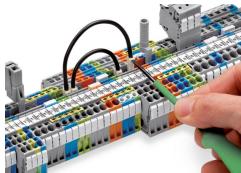


Continuous jumpers (2002 Series) readily connect an endless number of terminal blocks to each other via single jumper slot. Use the second jumper slot for additional commoning or testing.

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

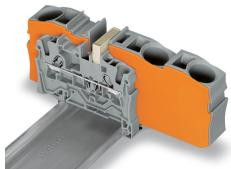
This star point jumper has been specially developed to create a "star point" and is used on motor terminal boards equipped with Rail-Mount Terminal Blocks TOP-JOB® S.

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



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

Commoning



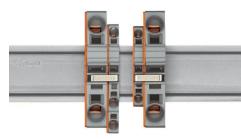
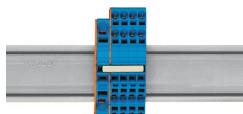
Step-down jumpers common terminal blocks of different sizes, without losing a conductor clamping point. This can be beneficial on long conductor runs where voltage drop can be a problem. A large conductor can be easily connected to smaller conductors at the distribution point.

Commoning may be made in either direction using the special thin end plate to cover the open side. Additional through terminal blocks having a smaller cross-section may be commoned using push-in type jumper bars.

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

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

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



Stepping down via push-in type jumper bar:

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

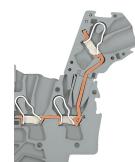
Stepping down via push-in type jumper bar:

Commoning via closed terminal side with end plate allows jumpering over two cross-section sizes, e.g., from 16 mm² (6 AWG) to 6 mm² (10 AWG) or from 6 mm² (10 AWG) to 2.5 mm² (14 AWG) (see illustration above).

Note:

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

Testing

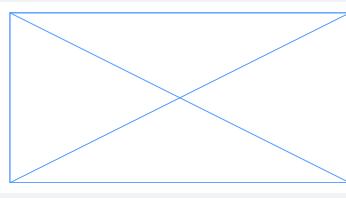


The modular TOPJOB® S connectors also connect conductors of the same size as the terminal blocks being used.

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

Rail-mount terminal block assembly for electric motor wiring

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

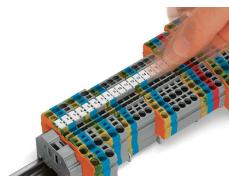


Test plug adapter (2009-174, CAT I) for 4 mm Ø plugs – compatible with 2000 to 2016 Series



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

Marking



Snapping WMB Inline markers into marker slots.



TOPJOB® S 2009-193 Group Marker Carrier (equipped with a marking strip) for all 2001 to 2016 Series TOPJOB® S Rail-Mount Terminal Blocks
Do not use on an end plate!

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

Ex application

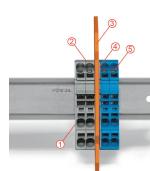


Through terminal blocks with a blue insulated housing are suitable for Ex i applications.

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

Separator plate for Ex e/Ex i applications

An end plate must be applied to the terminal block located directly behind an Ex e/Ex i separator plate.



Ex e II/Ex i terminal strip

Note:

The movable feet of terminal blocks and separator plates must face the same direction.

A separator plate is located between the Ex e II and Ex i terminal strip.

End plate
Ex e II terminal blocks
Separator plate for Ex e/Ex i applications
End plate
Ex i terminal blocks
According to EN 50020, a minimum distance of 50 mm must be kept between live parts of Ex e and Ex i circuits. The use of Ex e/Ex i separators is a space-saving solution when Ex e and Ex i terminal blocks are mounted on a common DIN-rail.