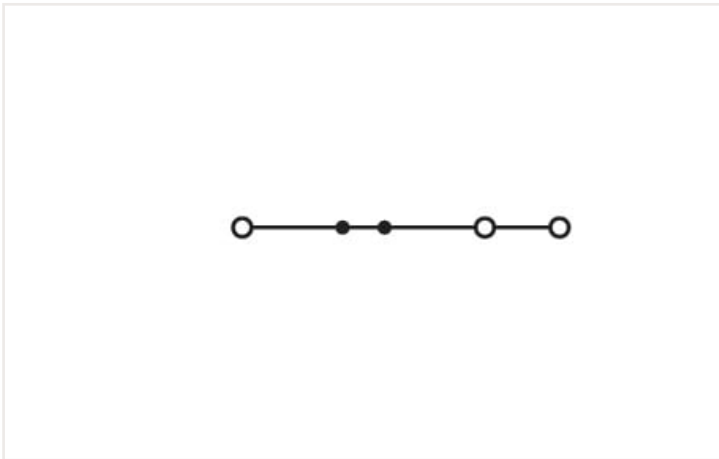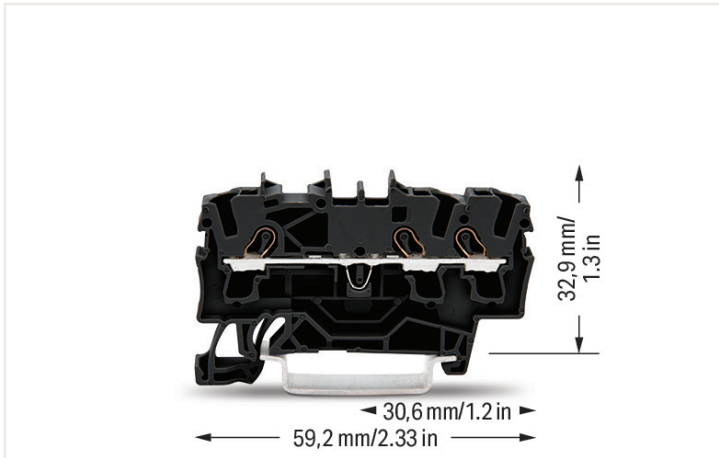# Data sheet | Item number: 2002-1305

3-conductor through terminal block; 2.5 mm²; suitable for Ex e II applications; side and center marking; for DIN-rail 35 x 15 and 35 x 7.5; Push-in CAGE CLAMP®; 2,50 mm²; black

https://www.wago.com/2002-1305

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Electrical data

Ratings per IEC/EN

Ratings per	IEC/EN 60947-7-1
Nominal voltage (III/3)	800 V
Rated impulse voltage (III/3)	8 kV
Rated current	24 A
Rated current 2	32 A
Legend (ratings)	(III / 3) ≙ Overvoltage category III / Pollution degree 3

Ratings per UL

Approvals per	UL 1059
Rated voltage UL (Use Group B)	600 V
Rated current UL (Use Group B)	20 A
Rated voltage UL (Use Group C)	600 V
Rated current UL (Use Group C)	20 A

Ratings per CSA

Approvals per	CSA 22.2 No 158
Rated voltage CSA (Use Group B)	600 V
Rated current CSA (Use Group B)	20 A
Rated voltage CSA (Use Group C)	600 V
Rated current CSA (Use Group C)	20 A

Ex information

Reference hazardous areas	See installation notes in section "Knowledge" and Downloads – Documentation – Additional Information: Technical Section; Technical explanations
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

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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

Total number of connection points	2
Total number of potentials	1
Number of levels	1
Number of jumper slots	2

Connection 1

Connection technology	Push-in CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper
Nominal cross-section	2.5 mm²
Solid conductor	0.25 … 4 mm² / 22 … 12 AWG
Solid conductor; push-in termination	0.75 … 4 mm² / 18 … 12 AWG
Fine-stranded conductor	0.25 … 4 mm² / 22 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 2.5 mm² / 22 … 14 AWG
Fine-stranded conductor; with ferrule; push-in termination	1 … 2.5 mm² / 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 data can be found here
Color	black
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.104 MJ
Weight	6.2 g

Environmental requirements

Processing temperature	-35 … +85 ℃
Continuous operating temperature	-60 … +105 ℃

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 Stück
Packaging type	Box
Country of origin VKOrg Germany	DE
GTIN	4044918081511
Customs tariff number VKOrg Germany	85369010000

Approvals and certificates

Ex-Approvals

Approval	Standard	Certificate name
AEx Underwriters Laboratories Inc.	UL 60079	E185892 (AEx eb IIC resp. Ex eb IIC)
ATEX Physikalisch Technische Bundesanstalt (PTB)	EN 60079	PTB 03 ATEX 1162 U (II2G Ex eb IIC Gb, IM2 Ex eb IMb)
CCCEx CQST/CNEx	CNCA-C23-01	2020312313000238
EAC Brjansker Zertifizierungs-stelle	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)

Country specific Approvals

Approval	Standard	Certificate name
CCA DEKRA Certification B.V.	EN 60947	71-120369
CCA DEKRA Certification B.V.	EN 60947	NTR NL 7892
CCA DEKRA Certification B.V.	C22.2 No. 158	1536069

Ship Approvals

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
LR Lloyds Register	EN 60947	91/20112 (E9)

UL-Approvals

Approval	Standard	Certificate name
UL Underwriters Laboratories Inc.	UL 1059	E45172

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 2002-1305	↓

Documentation

Additional Information				Bid Text			
Technical Section		pdf 2142.18 KB	↓	2002-1305	29.04.2019	xml 4.15 KB	↓
				2002-1305	23.04.2019	docx 14.91 KB	↓

CAD/CAE-Data

CAD data		CAE data	
2D/3D Models 2002-1305	↓	EPLAN Data Portal 2002-1305	↓
		WSCAD Universe 2002-1305	↓
		ZUKEN Portal 2002-1305	↓

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

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

1.2.1.1 Mounting accessories

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

1.2.2 End plate

1.2.2.1 End plate

Item no.: 209-191
Separator for Ex e/Ex i applications; 3 mm thick; 120 mm wide; orange

Item no.: 2002-1393
Seperator plate; 2 mm thick; oversized; gray

Item no.: 2002-1394
Seperator plate; 2 mm thick; oversized; orange

1.2.3 Ferrule

1.2.3.1 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

1.2.4 Installation

1.2.4.1 Mounting accessories

Item no.: 709-169
Cover carrier; Type 3; gray

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

Version 07.07.2022

1.2.5 Insulation stop

1.2.5.1 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

1.2.6 Jumper

1.2.6.1 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.: 2002-406/020-000
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

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

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1.2.6.1 Jumper

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; insulated; light gray

Item no.: 2016-499
Step-down jumper; from 2016/2010 to 2010/2006/2004/2002 series; insulated; light gray

Item no.: 210-103
Wire commoning chain; insulated; black

Item no.: 210-123
Wire commoning chain; insulated; blue

1.2.7 Marking

1.2.7.1 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

1.2.7.2 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

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

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1.2.7.2 Marker

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

1.2.7.3 Marker carrier

Item no.: 2002-161
Adaptor; gray

Item no.: 2009-198
Adaptor; gray

1.2.7.4 Marking strip

Item no.: 2009-110
Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white

1.2.8 Plug

1.2.8.1 Diode plug

Item no.: 2002-880/1000-411
Component plug; 2-pole; with diode 1N4007; 10.4 mm wide; Operating temperature 85°C max.; gray

1.2.8.2 Empty component plug housing

Item no.: 2002-880
Empty component plug housing; 10.4 mm wide; 2-pole; Type 4; gray

1.2.8.3 LED plug

Item no.: 2002-880/1000-541
Component plug; 2-pole; LED (red); 10.4 mm wide; Operating temperature 85℃ max.; gray

Item no.: 2002-880/1000-836
Component plug; 2-pole; LED (red); 10.4 mm wide; Operating temperature 85℃ max.; gray

Item no.: 2002-880/1000-542
Component plug; 2-pole; LED (red); 10.4 mm wide; Operating temperature 85℃ max.; multicoloured

1.2.9 Protective warning marker

1.2.9.1 Cover

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

1.2.10 Push-in type wire jumper

1.2.10.1 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

1.2.11 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 mm²; gray

Item no.: 2002-511
Modular TOPJOB®S connector; modular; for jumper contact slot; 1-pole; 2,50 mm²; gray

Item no.: 2002-552
Modular TOPJOB®S connector; modular; for jumper contact slot; 2-pole; 2,50 mm²; gray

Item no.: 2002-553
Modular TOPJOB®S connector; modular; for jumper contact slot; 3-pole; 2,50 mm²; gray

Item no.: 2002-554
Modular TOPJOB®S connector; modular; for jumper contact slot; 4-pole; 2,50 mm²; gray

Item no.: 2002-555
Modular TOPJOB®S connector; modular; for jumper contact slot; 5-pole; 2,50 mm²; gray

Item no.: 2002-556
Modular TOPJOB®S connector; modular; for jumper contact slot; 6-pole; 2,50 mm²; gray

Item no.: 2002-557
Modular TOPJOB®S connector; modular; for jumper contact slot; 7-pole; 2,50 mm²; gray

Item no.: 2002-558
Modular TOPJOB®S connector; modular; for jumper contact slot; 8-pole; 2,50 mm²; gray

Item no.: 2002-559
Modular TOPJOB®S connector; modular; for jumper contact slot; 9-pole; 2,50 mm²; 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

1.2.11.1 Testing accessories

Item no.: 2009-182
Testing tap; for max. 2.5 mm²; 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 mm²; 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
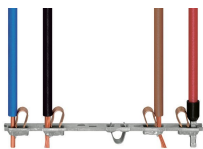
All conductor types at a glance
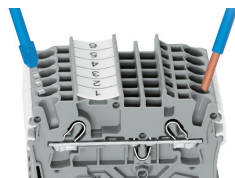
Push-in termination of solid and ferruled conductors
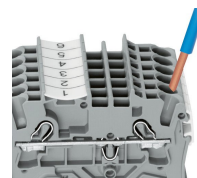
Inserting a conductor via push-in termination:
Solid conductors with cross-sections from either one size above, or up to two sizes below, the rated cross-section can be simply pushed in – no tools needed.
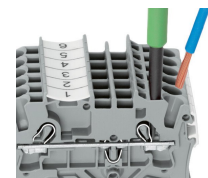
Inserting a conductor via operating tool:
Connecting fine-stranded conductors without ferrules, or small cross-sectional conductors that cannot be pushed in, is performed similarly to the original CAGE CLAMP® – just use an operating tool.
Advantage:
To open the clamp, the operating tool is inserted vertically. The conductor entry is less than 15 degrees for easier wiring.
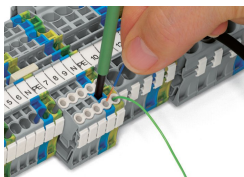
Conductor termination – insulation stop

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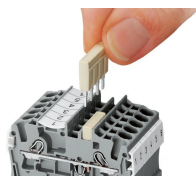
Insert push-in type jumper bar and push down until it hits backstop.
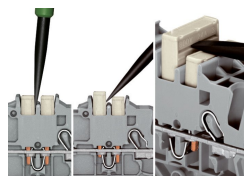
Removing a push-in type jumper bar:
Insert the operating tool between the jumper and partition wall of the dual jumper slots, then lift up the jumper.
Place the operating tool in the center of jumpers for up to five contacts (see above), or alternately on both sides for jumpers with more than five contacts.

WAGO

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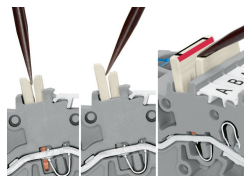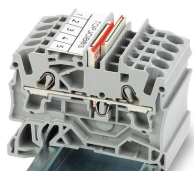
Orient the staggered jumpers' red stripes on the inside.
Insert the staggered jumper and push down until it hits the backstop.

Removing a staggered jumper:
Insert the operating tool between the staggered jumpers, then lift up the jumper.
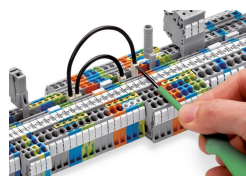
Commoning
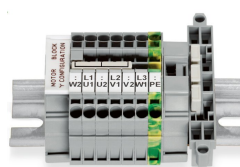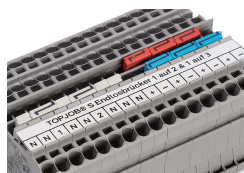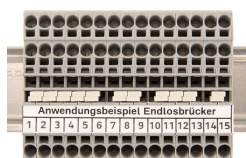
Continuous jumpers (2002 Series) readily connect an endless number of terminal blocks to each other via single jumper slot. Use the second jumper slot for additional commoning or testing.

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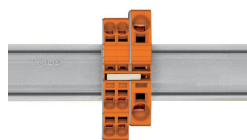
Commoning
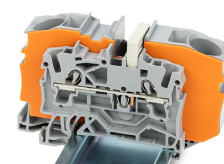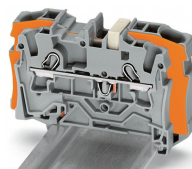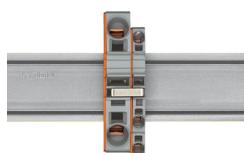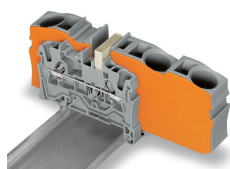
Step-down jumpers common terminal blocks of different sizes, without losing a conductor clamping point. This can be beneficial on long conductor runs where voltage drop can be a problem. A large conductor can be easily connected to smaller conductors at the distribution point.
Commoning may be made in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

Commoning
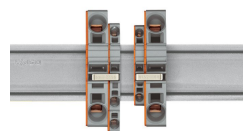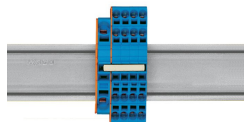
Stepping down via push-in type jumper bar:
Commoning via open terminal side with end plate allows jumpering over two cross-section sizes for 16 mm² (6 AWG) and 10 mm² (8 AWG) and one cross-section size for 6/4/2.5 mm² (10/12/14 AWG). An example: from 16 mm² (6 AWG) to 6 mm² (10 AWG) (see illustration 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
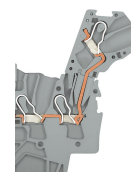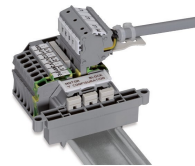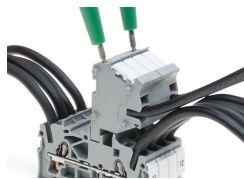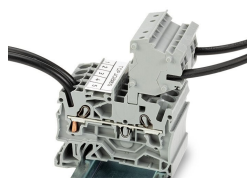
The modular TOPJOB® S connectors also connect conductors of the same size as the terminal blocks being used.

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

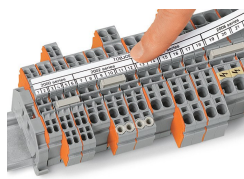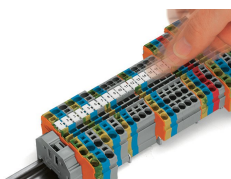Rail-mount terminal block assembly for electric motor wiring

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
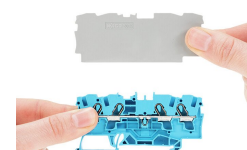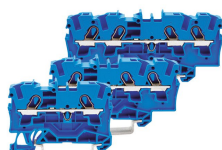
Marking

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.
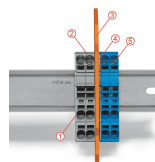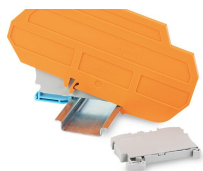
Ex application

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 application

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.

Subject to changes. Please also observe the further product documentation!

Current addresses can be found at: www.wago.com