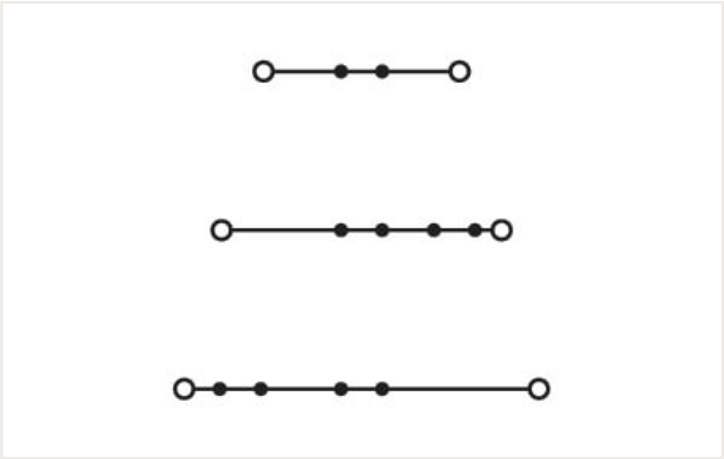


I : 2002-3201

Triple-deck terminal block; Through/through/through terminal block; L/L/L; without marker carrier; suitable for Ex e II applications; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; Push-in CAGE CLAMP®; 2,50 mm²; gray



: ■ gray



Electrical data			
Ratings per IEC/EN		Ratings per UL	
Ratings per	IEC/EN 60947-7-1	Approvals per	UL 1059
Nominal voltage (III/3)	500 V	Rated voltage UL (Use Group B)	300 V
Rated impulse voltage (III/3)	6 kV	Rated current UL (Use Group B)	20 A
Rated current	24 A	Rated voltage UL (Use Group C)	300 V
Rated current 2	28 A	Rated current UL (Use Group C)	20 A
Legend (ratings)	(III / 3) Δ Overvoltage category III / Pollution degree 3	Rated voltage UL (Use Group D)	600 V
		Rated current UL (Use Group D)	5 A
Ratings per CSA		Ex information	
Approvals per	CSA 22.2 No 158	Reference hazardous areas	See Downloads – Documentation – Additional Information: Technical Section; Technical explanations
Rated voltage CSA (Use Group B)	600 V	Ratings per	ATEX: PTB 03 ATEX 1162 U / IECEx: PTB 03.0004U (Ex eb IIC Gb)
Rated current CSA (Use Group B)	20 A	Rated voltage EN (Ex e II)	440 V
Rated voltage CSA (Use Group C)	600 V	Rated current (Ex e II)	19 A
Rated current CSA (Use Group C)	20 A	Rated current (Ex e II) with jumper	17 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

Total number of connection points	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 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

Connection 2

Number of connection points 2	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	L/L/L
Mounting type	DIN-35 rail
Marking level	Center/side marking

Material data

Note (material data)	Information on material data can be found here
Color	gray
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.316 MJ
Weight	16.8 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)	50 Stück
Packaging type	Box
Country of origin VKOrg Germany	DE
GTIN	4044918691185
Customs tariff number VKOrg Germany	85369010000

Approvals and certificates

Ex-Approvals



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)

Country specific Approvals



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



ABS American Bureau of Ship- ping	EN 60947	20-HG1941090-PDA
BV Bureau Veritas S.A.	EN 60947	38586/B0 BV
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE00001V2

UL-Approvals



UL Underwriters Laboratories Inc.	UL 1059	E45172
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Downloads

Environmental Product Compliance

Compliance Search

Environmental Product
Compliance 2002-3201



Documentation

Additional Information

Technical Section

pdf
2142.18 KB



Bid Text

2002-3201

18.04.2019

xml
4.25 KB



2002-3201

18.04.2019

docx
15.57 KB



CAD/CAE-Data

CAD data

2D/3D Models
2002-3201



CAE data

EPLAN Data Portal
2002-3201



WSCAD Universe
2002-3201



ZUKEN Portal
2002-3201



1 Compatible products

1.1 Required accessories

1.1.1 End plate

1.1.1.1 End plate



: [2002-3291](#)

End and intermediate plate; 0.8 mm thick;
gray



: [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



: [210-196](#)

Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm
thick; 2 m long; unslopped; similar to EN
60715; silver-colored



: [210-198](#)

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



: [210-508](#)

Steel carrier rail; 35 x 15 mm; 1.5 mm
thick; 2 m long; slopped; galvanized; simi-
lar to EN 60715; silver-colored



: [210-197](#)

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

1.2.1.1 Mounting accessories



:210-506
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored



:210-114
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored



:210-118
Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored



: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 Ferrule

1.2.2.1 Ferrule



: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



: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



: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



: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



: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



: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



: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



: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



: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 Mounting accessories



:709-169
Cover carrier; Type 3; gray



:709-156
Cover; Type 3; suitable for cover carrier, type 3; 1 m long; transparent

1.2.4 Insulation stop

1.2.4.1 Insulation stop



:2002-171
Insulation stop; 0.25 - 0.5 mm²; 5 pieces/strip; light gray



:2002-172
Insulation stop; 0.75 - 1 mm²; 5 pieces/strip; dark gray

1.2.5 Jumper

1.2.5.1 Jumper

			
: 2002-400 Continuous jumper; 2-way; insulated; light gray	: 2002-423/000-006 Continuous jumper; from 1 to 3; insulated; blue	: 2002-423 Continuous jumper; from 1 to 3; insulated; light gray	: 2002-423/000-005 Continuous jumper; from 1 to 3; insulated; red
			
: 2002-406/020-000 Delta jumper; insulated; light gray	: 2002-410/000-006 Jumper; 10-way; insulated; blue	: 2002-410 Jumper; 10-way; insulated; light gray	: 2002-410/000-005 Jumper; 10-way; insulated; red
			
: 2002-402/000-006 Jumper; 2-way; insulated; blue	: 2002-402 Jumper; 2-way; insulated; light gray	: 2002-402/000-005 Jumper; 2-way; insulated; red	: 2002-403/000-006 Jumper; 3-way; insulated; blue
			
: 2002-403 Jumper; 3-way; insulated; light gray	: 2002-403/000-005 Jumper; 3-way; insulated; red	: 2002-404/000-006 Jumper; 4-way; insulated; blue	: 2002-404 Jumper; 4-way; insulated; light gray
			
: 2002-404/000-005 Jumper; 4-way; insulated; red	: 2002-405/000-006 Jumper; 5-way; insulated; blue	: 2002-405 Jumper; 5-way; insulated; light gray	: 2002-405/000-005 Jumper; 5-way; insulated; red
			
: 2002-406/000-006 Jumper; 6-way; insulated; blue	: 2002-406 Jumper; 6-way; insulated; light gray	: 2002-406/000-005 Jumper; 6-way; insulated; red	: 2002-407/000-006 Jumper; 7-way; insulated; blue
			
: 2002-407 Jumper; 7-way; insulated; light gray	: 2002-407/000-005 Jumper; 7-way; insulated; red	: 2002-408/000-006 Jumper; 8-way; insulated; blue	: 2002-408 Jumper; 8-way; insulated; light gray
			
: 2002-408/000-005 Jumper; 8-way; insulated; red	: 2002-409/000-006 Jumper; 9-way; insulated; blue	: 2002-409 Jumper; 9-way; insulated; light gray	: 2002-409/000-005 Jumper; 9-way; insulated; red
			
: 2002-440 Jumper; from 1 to 10; insulated; light gray	: 2002-433 Jumper; from 1 to 3; insulated; light gray	: 2002-434 Jumper; from 1 to 4; insulated; light gray	: 2002-435 Jumper; from 1 to 5; insulated; light gray
			
: 2002-436 Jumper; from 1 to 6; insulated; light gray	: 2002-437 Jumper; from 1 to 7; insulated; light gray	: 2002-438 Jumper; from 1 to 8; insulated; light gray	: 2002-439 Jumper; from 1 to 9; insulated; light gray
			
: 2002-480 Staggered jumper; 10-way; insulated; light gray	: 2002-481 Staggered jumper; 11-way; insulated; light gray	: 2002-482 Staggered jumper; 12-way; insulated; light gray	: 2002-473/011-000 Staggered jumper; 2-way; from 1 to 3; insulated; light gray
			
: 2002-472 Staggered jumper; 2-way; insulated; light gray	: 2002-473 Staggered jumper; 3-way; insulated; light gray	: 2002-475/011-000 Staggered jumper; 3-way; insulated; light gray	: 2002-474 Staggered jumper; 4-way; insulated; light gray
			
: 2002-475 Staggered jumper; 5-way; insulated; light gray	: 2002-476 Staggered jumper; 6-way; insulated; light gray	: 2002-477 Staggered jumper; 7-way; insulated; light gray	: 2002-478 Staggered jumper; 8-way; insulated; light gray
			
: 2002-479 Staggered jumper; 9-way; insulated; light gray	: 2002-477/011-000 Staggered jumper; insulated; light gray	: 2002-479/011-000 Staggered jumper; insulated; light gray	: 2002-481/011-000 Staggered jumper; insulated; light gray

1.2.5.1 Jumper



: 2002-405/011-000
Star point jumper; 3-way; insulated; light gray



: 2002-492
Vertical jumper; insulated; light gray



: 2002-493
Vertical jumper; insulated; light gray



: 2002-492/000-012
Vertical jumper; insulated; orange



: 210-103
Wire commoning chain; insulated; black



: 210-123
Wire commoning chain; insulated; blue

1.2.6 Marking

1.2.6.1 Group marker carrier



: 2009-191
Group marker carrier; gray



: 2009-192
Group marker carrier; gray



: 2009-193
Group marker carrier; gray

1.2.6.2 Marker



: 2009-145/000-006
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue



: 2009-145/000-007
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray



: 2009-145/000-023
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green



: 2009-145/000-012
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange



: 2009-145/000-005
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red



: 2009-145/000-024
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet



: 2009-145
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white



: 2009-145/000-002
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow



: 248-501/000-006
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue



: 248-501/000-007
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray



: 248-501/000-023
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green



: 248-501/000-017
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green



: 248-501/000-012
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange



: 248-501/000-005
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red



: 248-501/000-024
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet



: 248-501
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white



: 248-501/000-002
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow



: 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



: 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



: 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



: 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



: 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



: 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



: 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



: 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



: 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



: 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



: 793-501/000-006
WMB marking card; as card; not stretchable; plain; snap-on type; blue



: 793-501/000-007
WMB marking card; as card; not stretchable; plain; snap-on type; gray



: 793-501/000-023
WMB marking card; as card; not stretchable; plain; snap-on type; green



: 793-501/000-017
WMB marking card; as card; not stretchable; plain; snap-on type; light green



: 793-501/000-012
WMB marking card; as card; not stretchable; plain; snap-on type; orange

1.2.6.2 Marker



: 793-501/000-005

WMB marking card; as card; not stretchable; plain; snap-on type; red



: 2009-115/000-006

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue



: 2009-115/000-012

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange



: 2009-115/000-002

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow



: 793-501/000-024

WMB marking card; as card; not stretchable; plain; snap-on type; violet



: 2009-115/000-007

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray



: 2009-115/000-005

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red



: 793-501

WMB marking card; as card; not stretchable; plain; snap-on type; white



: 2009-115/000-023

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green



: 2009-115/000-024

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet



: 793-501/000-002

WMB marking card; as card; not stretchable; plain; snap-on type; yellow



: 2009-115/000-017

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green



: 2009-115

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white



1.2.6.3 Marker carrier



: 2002-131

Adaptor; gray



: 2002-161

Adaptor; gray



: 2009-198

Adaptor; gray

1.2.6.4 Marking strip



: 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



: 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



: 2009-414
Push-in type wire jumper; 1.5 mm²; insulated; 110 mm long; black



: 2009-414/000-005
Push-in type wire jumper; 1.5 mm²; insulated; 110 mm long; black



: 2009-416
Push-in type wire jumper; 1.5 mm²; insulated; 250 mm long; black



: 2009-414/000-006
Push-in type wire jumper; insulated; 110 mm long; black



: 2009-412
Push-in type wire jumper; insulated; 60 mm long; black

1.2.9 Test and measurement

1.2.9.1 Testing accessories



: 2009-174
Test plug adapter; for 4 mm Ø test plugs; for testing TOPJOB®S rail-mounted terminal blocks; gray



: 2009-182
Testing tap; for max. 2.5 mm²; tool-free connection for individual test wires 0.08 - 2.5 mm; gray



: 2002-649
TOPJOB®S L-type spacer module; modular; e.g., for bridging commoned terminal blocks; gray



: 2002-611
TOPJOB®S L-type test plug module; modular; 1-pole; 2.50 mm²; gray

1.2.10 Tool

1.2.10.1 Operating tool



: 210-658
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured



: 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



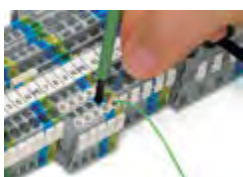
Push-in termination of solid and ferruled conductors



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 (2002-0492) and triple-deck vertical jumpers (2002-0493), even when inserted.