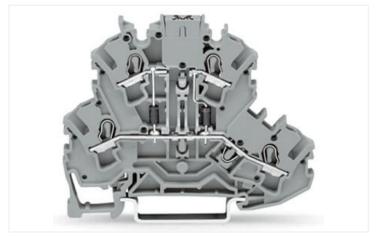
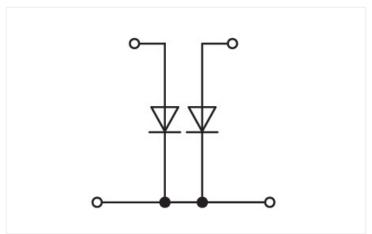
Component terminal block; double-deck; with 2 diodes 1N4007; Top anode; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; Push-in CAGE CLAMP®; 2,50 mm²; gray



https://www.wago.com/2002-2213/1000-488





Color: ■ gray Similar to illustration

Electrical data			
Ratings per	IEC	/EN 60947-7	7-1
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	-	-	-
Rated surge voltage	-	-	-
Rated current	-	-	-

General information		
Nominal voltage	250 V	
Reverse voltage	1000 V	

2002-2213/1000-488

Connection data		
Connection points	4	
Total number of potentials	2	
Number of levels	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

https://www.wago.com/2002-2213/1000-488



Physical data

 Width
 5.2 mm / 0.205 inches

 Height
 69.7 mm / 2.744 inches

 Depth from upper-edge of DIN-rail
 51.7 mm / 2.035 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 gray

Material group I

Insulation material Polyamide (PA66)

Flammability class per UL94 V0
Fire load 0.241 MJ
Weight 10.6 g

Environmental requirements

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

Commercial data

22 (TOPJOBS) **Product Group** eCl@ss 10.0 27-14-11-27 eCl@ss 9.0 27-14-11-27 **ETIM 8.0** EC000903 ETIM 7.0 EC000903 PU (SPU) 50 pcs Packaging type Box Country of origin DE GTIN 4045454375614 Customs tariff number 85369010000

Environmental Product Compliance

CAS-No. 7439-92-1 79-94-7

79-94-7

REACH Candidate List Substance 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol

Lead

RoHS Compliance Status Compliant, With Exemption

RoHS Exemption 7(a)

7(c)-I

 SCIP notification number (Austria)
 91a7e30e-7af7-46ba-94f4-b54e180c2fcb

 SCIP notification number (Belgium)
 fe1247ab-fe0c-491c-829a-e4a284050576

 SCIP notification number (Bulgaria)
 f5d90077-1205-4d07-8193-c4c3970e69ba

SCIP notification number (Czech Republic)

d78c3fbb-a6b3-44e2-ae50-f01c84130a18

SCIP notification number (Denmark)

a1d6b56d-045d-4c4c-b333-142113699734

 SCIP notification number (Finland)
 992dbfc1-325b-4a95-96ce-eaf0d1ab8cd2

 SCIP notification number (France)
 d2b1ce8b-c733-450d-b99f-f6691ee57603

 SCIP notification number (Germany)
 4e63454f-ab20-4532-8a77-92c03d581d0b

SCIP notification number (Hungary) 1905f969-0d46-434a-afef-47cb0b9ab4b0 SCIP notification number (Italy) f07b8d3e-867e-4435-aa5c-6cfb118f2f19

Total delication literature (least)

https://www.wago.com/2002-2213/1000-488



Environmental Product Compliance SCIP notification number (Netherlands) SCIP notification number (Poland) SCIP notification number (Romania) SCIP notification number (Romania) SCIP notification number (Sweden) 9eefcc16-2dcd-481b-bccb-13de84bc80c9 8e839130-4918-47ac-a845-62a63aed6a62 SCIP notification number (Sweden) 9f9e9aff-ca78-423d-abfa-f2cf7bb5eeda

Approvals / Certificates

Declarations of conformity and manufacturer's declarations



Approval Standard Certificate Name

Railway - Railway Ready

WAGO GmbH & Co. KG

Downloads

Environmental Product Compliance

Compliance Search Environmental Product Compliance 2002-2213/1000-488

Documentation						
Additional Information			Bid Text			
Technical Section	pdf 2240.62 KB	<u>↓</u>	2002-2213/1000-488	23.04.2019	xml 3.92 KB	<u>↓</u>
			2002-2213/1000-488	23.04.2019	docx 15.19 KB	$\underline{\downarrow}$

CAD/CAE-Data	
CAD data	CAE data
2D/3D Models 2002-2213/1000-488	EPLAN Data Portal 2002-2213/1000-488
	WSCAD Universe 2002-2213/1000-488
	ZUKEN Portal 2002-2213/1000-488

https://www.wago.com/2002-2213/1000-488



1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate



Item No.: 2002-2291

End and intermediate plate; 0.8 mm thick; arav



Item No.: 2002-2292

End and intermediate plate; 0.8 mm thick; orange

1.2 Optional Accessories

1.2.1 DIN-rail

1.2.1.1 Mounting accessories



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



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



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



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

Item No.: 216-263

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



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

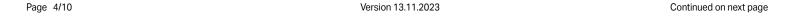
Item No.: 216-246

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



https://www.wago.com/2002-2213/1000-488



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

gray





Continuous jumper; from 1 to 3; insulated;

Continuous jumper; from 1 to 4; insulated;

Jumper; 10-way; insulated; light gray





red

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



Item No.: 2002-423/000-005

Continuous jumper; from 1 to 3; insulated; red



Continuous jumper; 2-way; insulated; light

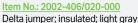


Item No.: 2002-424/000-006 Continuous jumper; from 1 to 4; insulated; blue

Item No.: 2002-423/000-006

blue

Item No.: 2002-424/000-005 Continuous jumper; from 1 to 4; insulated; Item No.: 2002-406/020-000





Item No.: 2002-410/000-006

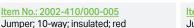
Jumper; 10-way; insulated; blue

Item No.: 2002-410

Item No.: 2002-424

light gray

Item No.: 2002-410/000-005







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.: 2002-404

Item No.: 2002-403 Jumper; 3-way; insulated; light gray



Item No.: 2002-403/000-005

Item No.: 2002-404/000-006 Jumper; 3-way; insulated; red Jumper; 4-way; insulated; blue



Item No.: 2002-404/000-005

Jumper; 4-way; insulated; red



Item No.: 2002-405/000-006

Item No.: 2002-405 Jumper; 5-way; insulated; blue Jumper; 5-way; insulated; light gray

Jumper; 4-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

https://www.wago.com/2002-2213/1000-488



1.2.5.1 Jumper







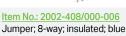
Item No.: 2002-406

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

Item No.: 2002-408/000-005

Jumper; 8-way; insulated; light gray

Jumper; 8-way; insulated; red

Item No.: 2002-409/000-006



Item No.: 2002-409/000-005

Item No.: 2002-440

Jumper; 9-way; insulated; blue



Jumper; 9-way; insulated; red

Jumper; from 1 to 10; insulated; light gray

Item No.: 2002-433

Item No.: 2002-437



Item No.: 2002-435

Item No.: 2002-436

Jumper; from 1 to 3; insulated; light gray

Jumper; from 1 to 4; insulated; light gray

Jumper; from 1 to 5; insulated; light gray

Jumper; from 1 to 6; insulated; light gray



XIXITIALS LIVER

Jumper; from 1 to 7; insulated; light gray



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

MINITED ALL LAND



Item No.: 2002-473/011-000

Item No.: 2002-481

Item No.: 2002-473

gray

Staggered jumper; 11-way; insulated; light gray

Item No.: 2002-482

Staggered jumper; 12-way; insulated; light gray

Staggered jumper; 2-way; from 1 to 3; insulated; light gray

Item No.: 2002-472

Staggered jumper; 2-way; insulated; light

gray



Item No.: 2002-475/011-000

gray

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



Staggered jumper; 3-way; insulated; light

Item No.: 2002-476

Item No.: 2002-477/011-000

Staggered jumper; 6-way; insulated; light gray

Item No.: 2002-477 Staggered jumper; 7-way; insulated; light

Item No.: 2002-478

Staggered jumper; 8-way; insulated; light gray

Item No.: 2002-479 Staggered jumper; 9-way; insulated; light gray



Item No.: 2002-481/011-000 Item No.: 2002-479/011-000 Staggered jumper; insulated; light gray Staggered jumper; insulated; light gray

Staggered jumper; insulated; light gray



Item No.: 210-103

Wire commoning chain; insulated; black

Item No.: 210-123 Wire commoning chain; insulated; blue Item No.: 2002-405/011-000

Star point jumper; 3-way; insulated; light gray

1.2.6 Marking

1.2.6.1 Group marker carrier



Item No.: 2009-191

Group marker carrier; grav

Item No.: 2009-192

Group marker carrier; grav

Item No.: 2009-193 Group marker carrier; grav

https://www.wago.com/2002-2213/1000-488



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

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

Item No.: 248-501/000-017

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; vellow



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

Item No.: 248-501/000-005

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



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



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



WMB marking card; as card; for terminal

Item No.: 248-501/000-024

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



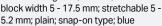
Item No.: 248-501

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



Item No.: 793-5501/000-014

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; brown



Item No.: 793-5501/000-007

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; 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

WMB marking card; as card; for terminal

block width 5 - 17.5 mm; stretchable 5 -

5.2 mm; plain; snap-on type; white



WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 -5.2 mm; plain; snap-on type; orange

WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 -5.2 mm; plain; snap-on type; red



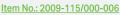
Item No.: 793-5501/000-024

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.: 793-5501/000-002

WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 -5.2 mm; plain; snap-on type; yellow



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 pie-



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 pie-



Item No.: 2009-115/000-005

WMB-Inline; for Smart Printer; 1500 piesnap-on type: red

Item No.: 793-5501

ces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green



ces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

ces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange



ces on roll; stretchable 5 - 5.2 mm; plain;

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 pie-

Item No.: 2009-115/000-002

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

1.2.6.3 Marker carrier



Item No.: 2002-121 Adaptor; gray

Item No.: 2002-161

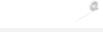
Adaptor; gray

Item No.: 2009-198 Adaptor; gray

https://www.wago.com/2002-2213/1000-488



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 mm²; insulated; 110 mm long; black



Item No.: 2009-412

Push-in type wire jumper; insulated; 60 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

1.2.9 Screwless end stop

1.2.9.1 Mounting accessories



-) *_

Item No.: 249-117

Screwless end stop; 10 mm wide; for DINrail 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



Test plug adapter; for 4 mm \emptyset test plugs; for testing TOPJOB®S rail-mounted terminal blocks; gray

Item No.: 2009-182

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

9...

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

https://www.wago.com/2002-2213/1000-488



1.2.11 Tool

1.2.11.1 Operating tool



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







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.

https://www.wago.com/2002-2213/1000-488





Double-deck diode terminal blocks were specifically developed for custom diode circuits, such as lamp test and collective fault signal circuits.

These terminal blocks provide high-density wiring in a width of just 5.2 mm.
Push-in type jumper bars provide additional options for custom circuit design.

Marking





Snapping WMB Inline markers into marker slots.



Lamp test circuits can be created using the following terminal blocks: 2002-2213/1000-487 or 2002-2213/1000-488

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