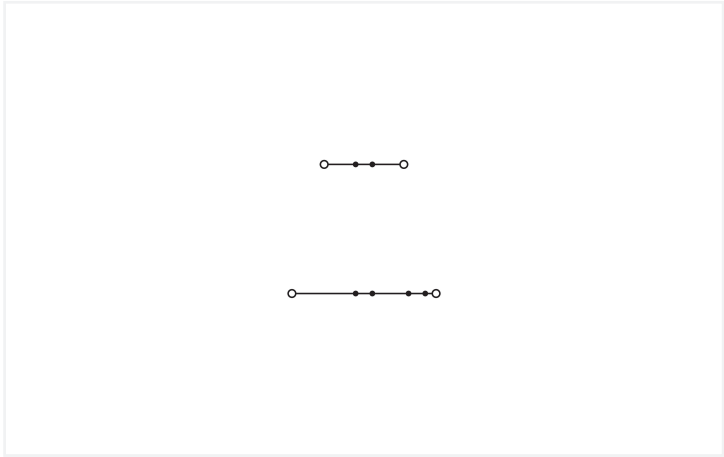
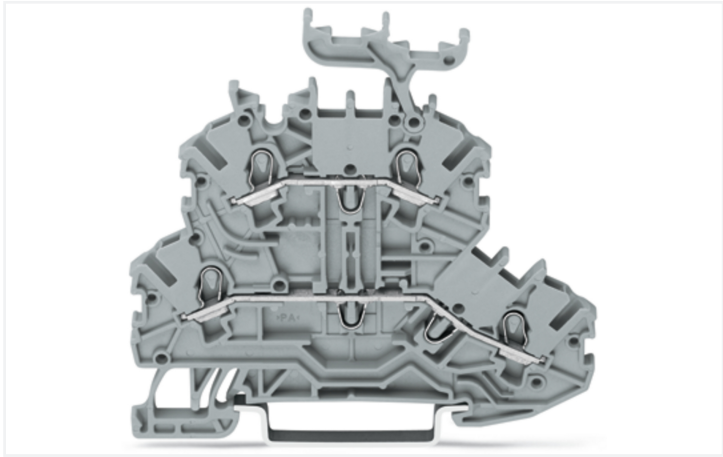


Data Sheet | Item Number: 2000-2233

Double-deck terminal block; Through/through terminal block; L/N; with marker carrier;
Blue conductor entry upper deck; for DIN-rail 35 x 15 and 35 x 7.5; Push-in CAGE
CLAMP®; 1,00 mm²; gray

<https://www.wago.com/2000-2233>



Color: ■ gray

Similar to illustration

Similar to illustration

Double-deck terminal block, 2000 Series, operating tool

Our double-deck terminal block (item number 2000-2233) is designed for seamless electrical installations. Conductors should only be connected to this double-deck terminal block if their strip length is between 9 and 11 mm . The double-deck terminal block also functions as a through terminal block. Featuring conductor terminals along with Push-in CAGE CLAMP®, this connector delivers reliable performance. Our Push-in CAGE CLAMP® is a universal, maintenance-free connection solution for all conductor types, boasting a key feature: both solid and fine-stranded conductors with ferrules can be directly inserted without the need for tools or any preparation, such as crimping the ferrule. Depending on the conductor type, this double-deck terminal block is suitable for conductor cross sections ranging from 0.14 mm² to 1.5 mm² .

This product is designed for specific Ex applications (please refer to the product datasheet).

- L/N in a single terminal
- Suitable for specific Ex applications
- The right solution for every wiring task
- Ready to install, immediately usable
- Actuation via operating tool

Electrical data							
Ratings per		IEC/EN 60947-7-1			Approvals per		UL 1059
Overvoltage category		III	III	II	Use group	B	C D
Pollution degree		3	2	2	Rated voltage	300 V	300 V -
Nominal voltage		500 V	-	-	Rated current	15 A	15 A -
Rated impulse withstand voltage		6 kV	-	-			
Rated current		13.5 A	-	-			
Current at conductor cross-section (max.) mm²		16 A	-	-			



Approvals per		CSA 22.2 No 158		
Use group		B	C	D
Rated voltage		600 V	600 V	-
Rated current		10 A	10 A	-

Power Loss	
Power loss, per pole (potential)	0.4338 W
Rated current I _N for power loss specification	13.5 A
Resistance value for specified, current-dependent power loss	0.00238 Ω

Ex information	
Reference to hazardous areas	See “Downloads – Documentation – Additional Information: Technical Section; Technical Explanations”
Ratings per	ATEX: PTB 11 ATEX 1041 U / IECEx: PTB 11.0093U (Ex eb IIC Gb)
Rated voltage EN (Ex e II)	350 V
Rated current (Ex e II)	13 A
Rated current (Ex e II) with jumper	12 A

General information	
Wiring direction	Front-entry wiring

Connection Data			
Clamping units	4	Connection 1	
Total number of potentials	2	Connection technology	Push-in CAGE CLAMP®
Number of levels	2	Actuation type	Operating tool
Number of jumper slots	4	Connectable conductor materials	Copper
		Nominal cross-section	1 mm²
		Solid conductor	0.14 ... 1.5 mm² / 24 ... 16 AWG
		Solid conductor; push-in termination	0.5 ... 1.5 mm² / 20 ... 16 AWG
		Fine-stranded conductor	0.14 ... 1.5 mm² / 24 ... 16 AWG
		Fine-stranded conductor; with insulated ferrule	0.14 ... 0.75 mm² / 24 ... 18 AWG
		Fine-stranded conductor; with ferrule; push-in termination	0.5 ... 0.75 mm² / 20 ... 18 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	9 ... 11 mm / 0.35 ... 0.43 inches
		Wiring direction	Front-entry wiring

Physical data	
Width	3.5 mm / 0.138 inches
Height	69.7 mm / 2.744 inches
Depth from upper-edge of DIN-rail	61.8 mm / 2.433 inches

Mechanical data	
Potential marking	L/N
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 (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.141 MJ
Weight	7.6 g

Environmental requirements	
Processing temperature	-35 ... +85 °C
Continuous operating temperature	-60 ... +105 °C
Environmental Testing	
Test specification: Railway applications – Rolling stock – Electronic equipment	DIN EN 50155 (VDE 0115-200):2022-06
Test procedure: Railway applications – Rolling stock equipment – Vibration and shock tests	DIN EN 61373 (VDE 0115-0106):2011-04
Spectrum/Mounting location	Service life test, Category 1, Class A/B
Functional test with noise-like oscillations	Test passed according to Section 8 of the standard
Frequency	f ₁ = 5 Hz to f ₂ = 150 Hz
Acceleration	0.101g (highest test level used for all axes)
Test duration per axis	10 min.
Test directions	X, Y and Z axes
Monitoring of contact faults and interruptions	Passed
Voltage drop measurement before and after each axis	Passed
Simulated service life test through increased levels of noise-like oscillations	Test passed according to Section 9 of the standard
Frequency	f ₁ = 5 Hz to f ₂ = 150 Hz
Acceleration	0.572g (highest test level used for all axes)
Test duration per axis	5 h
Test directions	X, Y and Z axes
Extended testing: Monitoring of contact faults and interruptions	Passed
Extended testing: Voltage drop measurement before and after each axis	Passed
Shock test	Test passed according to Section 10 of the standard
Shock pulse form	Half sine
Acceleration	5g (highest test level used for all axes)
Shock duration	30 ms
Number of shocks (per axis)	3 pos. und 3 neg.
Test directions	X, Y and Z axes
Extended testing: Monitoring of contact faults and interruptions	Passed
Extended testing: Voltage drop measurement before and after each axis	Passed
Vibration and shock stress for rolling stock equipment	Passed

Commercial data		
Product Group	22 (TOPJOB S)	
PU (SPU)	50 pcs	
Packaging type	Box	
Country of origin	CN	
GTIN	4055143267748	
Customs tariff number	85369010000	

Product Classification		
UNSPSC	39121410	
eCl@ss 10.0	27-14-11-20	
eCl@ss 9.0	27-14-11-20	
ETIM 9.0	EC000897	
ETIM 10.0	EC000897	
ECCN	NO US CLASSIFICATION	

Environmental Product Compliance		
RoHS Compliance Status	Compliant, No Exemption	

Approvals / Certificates		
General approvals		Declarations of conformity and manufacturer's declarations
		
Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947	NTR NL 7962
CSA DEKRA Certification B.V.	C22.2	2130762
KEMA/KEUR DEKRA Certification B.V.	EN 60947	71-125928
UL Underwriters Laboratories Inc.	UL 1059	E45172
Approval	Standard	Certificate Name
ATEX-Attestation of Confor- mity WAGO GmbH & Co. KG	-	-
EU-Declaration of Conformi- ty WAGO GmbH & Co. KG	-	-
Railway WAGO GmbH & Co. KG	-	Railway Ready
UK-Declaration of Conformi- ty WAGO GmbH & Co. KG	-	-

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 11 ATEX 1041 U (II 2 G Ex eb IIC Gb bzw. I M 2 Ex eb I Mb)
CCC CNEX	GB/T 3836.3	2020312313000182 (Ex eb IIC Gb, Ex eb I Mb)
IECEx Physikalisch Technische Bundesanstalt	IEC 60079	IECEx PTB 11.0093U (Ex e IIC Gb or Ex e I Mb)



Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 2000-2233

↓

Documentation			
Bid Text			
2000-2233	19.02.2019	xml 3.80 KB	↓
2000-2233	07.08.2018	docx 14.53 KB	↓

CAD/CAE-Data

CAD data

2D/3D Models 2000-2233

↓

CAE data

EPLAN Data Portal 2000-2233

↓

WSCAD Universe 2000-2233

↓

ZUKEN Portal 2000-2233

↓

1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate



Item No.: 2000-2291 End plate; 0.7 mm thick; gray	Item No.: 2000-2292 End plate; 0.7 mm thick; orange
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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.: 210-197 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored	Item No.: 210-114 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.: 210-113 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; 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.: 216-243
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red

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 Jumper

1.2.4.1 Jumper



Item No.: 2000-406/020-000
Delta jumper; insulated; light gray



Item No.: 2000-410/000-006
Jumper; 10-way; insulated; blue



Item No.: 2000-410
Jumper; 10-way; insulated; light gray



Item No.: 2000-410/000-005
Jumper; 10-way; insulated; red



Item No.: 2000-402/000-006
Jumper; 2-way; insulated; blue



Item No.: 2000-402
Jumper; 2-way; insulated; light gray



Item No.: 2000-402/000-005
Jumper; 2-way; insulated; red



Item No.: 2000-402/000-018
Jumper; 2-way; insulated; yellow-green



Item No.: 2000-403/000-006
Jumper; 3-way; insulated; blue



Item No.: 2000-403
Jumper; 3-way; insulated; light gray



Item No.: 2000-403/000-005
Jumper; 3-way; insulated; red



Item No.: 2000-404/000-006
Jumper; 4-way; insulated; blue



Item No.: 2000-404
Jumper; 4-way; insulated; light gray



Item No.: 2000-404/000-005
Jumper; 4-way; insulated; red



Item No.: 2000-405/000-006
Jumper; 5-way; insulated; blue



Item No.: 2000-405
Jumper; 5-way; insulated; light gray



Item No.: 2000-405/000-005
Jumper; 5-way; insulated; red



Item No.: 2000-406/000-006
Jumper; 6-way; insulated; blue



Item No.: 2000-406
Jumper; 6-way; insulated; light gray



Item No.: 2000-406/000-005
Jumper; 6-way; insulated; red



Item No.: 2000-407/000-006
Jumper; 7-way; insulated; blue



Item No.: 2000-407
Jumper; 7-way; insulated; light gray



Item No.: 2000-407/000-005
Jumper; 7-way; insulated; red



Item No.: 2000-408/000-006
Jumper; 8-way; insulated; blue

1.2.4.1 Jumper

**Item No.: 2000-408**

Jumper; 8-way; insulated; light gray

**Item No.: 2000-408/000-005**

Jumper; 8-way; insulated; red

**Item No.: 2000-409/000-006**

Jumper; 9-way; insulated; blue

**Item No.: 2000-409**

Jumper; 9-way; insulated; light gray

**Item No.: 2000-409/000-005**

Jumper; 9-way; insulated; red

**Item No.: 2000-440**

Jumper; from 1 to 10; insulated; light gray

**Item No.: 2000-433/000-006**

Jumper; from 1 to 3; insulated; blue

**Item No.: 2000-433**

Jumper; from 1 to 3; insulated; light gray

**Item No.: 2000-433/000-005**

Jumper; from 1 to 3; insulated; red

**Item No.: 2000-434**

Jumper; from 1 to 4; insulated; light gray

**Item No.: 2000-435**

Jumper; from 1 to 5; insulated; light gray

**Item No.: 2000-436**

Jumper; from 1 to 6; insulated; light gray

**Item No.: 2000-437**

Jumper; from 1 to 7; insulated; light gray

**Item No.: 2000-438**

Jumper; from 1 to 8; insulated; light gray

**Item No.: 2000-439**

Jumper; from 1 to 9; insulated; light gray

**Item No.: 2000-405/011-000**

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

**Item No.: 2000-492**

Vertical jumper; insulated; light gray

**Item No.: 210-103**

Wire commoning chain; 0.5 mm²; insulated; black

**Item No.: 210-123**

Wire commoning chain; insulated; blue

1.2.5 Marking

1.2.5.1 Marker

**Item No.: 793-3501**

WMB marking card; as card; plain; snap-on type; white

**Item No.: 2009-113/000-006**

WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; blue

**Item No.: 2009-113/000-007**

WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; gray

**Item No.: 2009-113/000-023**

WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; green

**Item No.: 2009-113/000-017**

WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; light green

**Item No.: 2009-113/000-012**

WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; orange

**Item No.: 2009-113/000-005**

WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; red

**Item No.: 2009-113/000-024**

WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; violet

**Item No.: 2009-113**

WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; white

**Item No.: 2009-113/000-002**

WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; yellow

1.2.5.2 Marking strip

**Item No.: 2009-110**

Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white

1.2.6 Protective warning marker

1.2.6.1 Cover



Item No.: 2000-115
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

1.2.7 Push-in type wire jumper

1.2.7.1 Jumper



Item No.: 2009-404
Push-in type wire jumper; 0.75 mm²; insulated; 110 mm long; gray



Item No.: 2009-406
Push-in type wire jumper; 0.75 mm²; insulated; 250 mm long; gray



Item No.: 2009-402
Push-in type wire jumper; 0.75 mm²; insulated; 60 mm long; gray

1.2.8 Screwless end stop

1.2.8.1 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

1.2.9 Test and measurement

1.2.9.1 Testing accessories



Item No.: 2009-174
Test plug adapter; for 4 mm Ø test plugs; for testing TOPJOB®S rail-mounted terminal blocks; gray



Item No.: 2009-182
Testing tap; for max. 2.5 mm²; tool-free connection for individual test wires 0.08 - 2.5 mm; gray

1.2.10 Tool

1.2.10.1 Operating tool



Item No.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft



Item No.: 210-648
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; angled; short



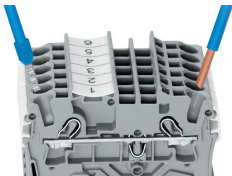
Item No.: 210-647
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured

Installation Notes

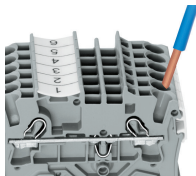
Conductor termination



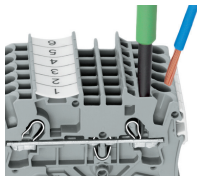
All conductor types at a glance



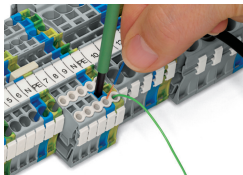
Push-in termination of solid and ferruled conductors



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.

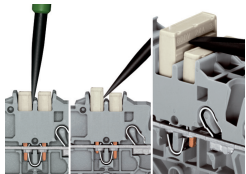


Inserting a conductor via operating tool:
Connecting fine-stranded conductors without ferrules, or small cross-sectional conductors that cannot be pushed in, is performed similarly to the original CAGE CLAMP® – just use an operating tool.
Advantage:
To open the clamp, the operating tool is inserted vertically.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

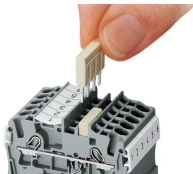


Conductor termination – insulation stop

Commoning

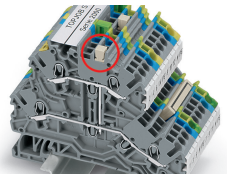


Removing a push-in type jumper bar:
Insert the operating tool between the jumper and partition wall of the dual jumper slots, then lift up the jumper.
Place the operating tool in the center of jumpers for up to five contacts (see above), or alternately on both sides for jumpers with more than five contacts.



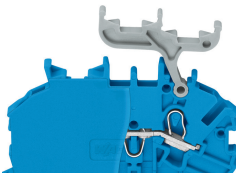
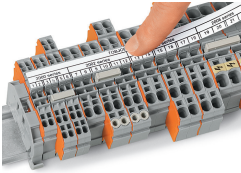
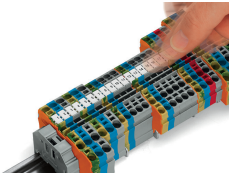
Insert push-in type jumper bar and push down until it hits backstop.

Commoning

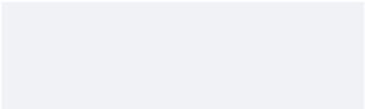


Commoning two levels via double-deck vertical jumper (Item No. 2000-492).

Marking



Snapping WMB Inline markers into marker slots.



Double-Deck Terminal Blocks
A double-deck marker carrier (Item No. 2000-121) can be retrofitted to double-deck terminal blocks without a marker carrier.