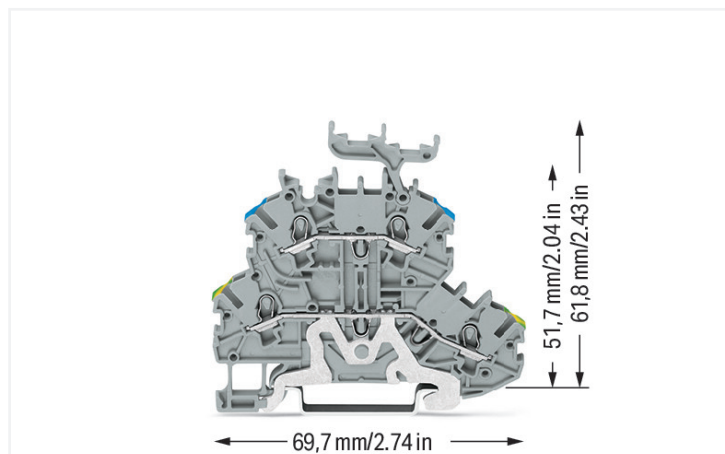


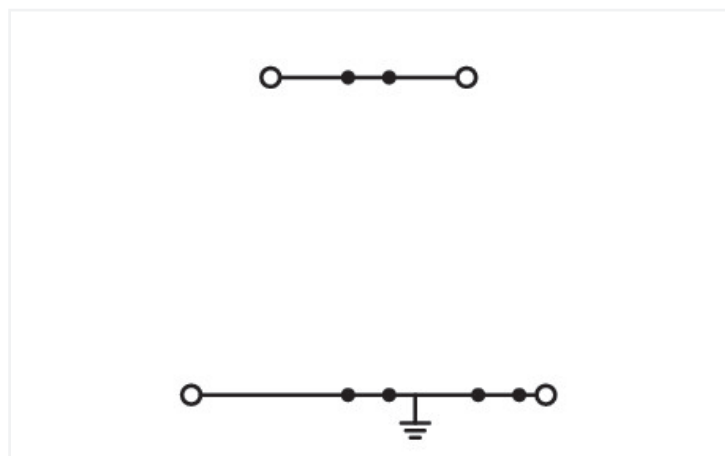
Data Sheet | Item Number: 2000-2247

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

<https://www.wago.com/2000-2247>



Color: ■ gray



Similar to illustration

Double-deck terminal block, 2000 Series, Push-in CAGE CLAMP®

Our double-deck terminal block (item number 2000-2247) ensures effortless electrical installations. Ensure that the strip lengths are between 9 and 11 mm when connecting conductors to this double-deck terminal block. The double-deck terminal block also serves as a ground terminal block as well as a through terminal block. This product features conductor terminals and utilizes Push-in CAGE CLAMP®. Push-in CAGE CLAMP® technology provides a universal connection solution for any type of conductor. It allows both solid and fine-stranded conductors with ferrules to be inserted directly into the clamping point without the need for tools. 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).

- 2 connection points
- Compact sizes
- Suitable for specific Ex applications
- PE/N in a single terminal
- Safe and fast installation

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.) mm ²		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	-

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

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

General information	
Wiring direction	Front-entry wiring

Connection Data

Clamping units	4
Total number of potentials	2
Number of levels	2
Number of jumper slots	4

Connection 1	
Connection technology	Push-in CAGE CLAMP®
Actuation type	Operating tool
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		PE/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		0.134 MJ
Weight		9.7 g

Environmental requirements																																																		
Processing temperature	-35 ... +85 °C	<table><tr><th colspan="2">Environmental Testing</th></tr><tr><td>Test specification: Railway applications – Rolling stock – Electronic equipment</td><td>DIN EN 50155 (VDE 0115-200):2022-06</td></tr><tr><td>Test procedure: Railway applications – Rolling stock equipment – Vibration and shock tests</td><td>DIN EN 61373 (VDE 0115-0106):2011-04</td></tr><tr><td>Spectrum/Mounting location</td><td>Service life test, Category 1, Class A/B</td></tr><tr><td>Functional test with noise-like oscillations</td><td>Test passed according to Section 8 of the standard</td></tr><tr><td>Frequency</td><td>f₁ = 5 Hz to f₂ = 150 Hz</td></tr><tr><td>Acceleration</td><td>0.101g (highest test level used for all axes)</td></tr><tr><td>Test duration per axis</td><td>10 min.</td></tr><tr><td>Test directions</td><td>X, Y and Z axes</td></tr><tr><td>Monitoring of contact faults and interruptions</td><td>Passed</td></tr><tr><td>Voltage drop measurement before and after each axis</td><td>Passed</td></tr><tr><td>Simulated service life test through increased levels of noise-like oscillations</td><td>Test passed according to Section 9 of the standard</td></tr><tr><td>Frequency</td><td>f₁ = 5 Hz to f₂ = 150 Hz</td></tr><tr><td>Acceleration</td><td>0.572g (highest test level used for all axes)</td></tr><tr><td>Test duration per axis</td><td>5 h</td></tr><tr><td>Test directions</td><td>X, Y and Z axes</td></tr><tr><td>Extended testing: Monitoring of contact faults and interruptions</td><td>Passed</td></tr><tr><td>Extended testing: Voltage drop measurement before and after each axis</td><td>Passed</td></tr><tr><td>Shock test</td><td>Test passed according to Section 10 of the standard</td></tr><tr><td>Shock pulse form</td><td>Half sine</td></tr><tr><td>Acceleration</td><td>5g (highest test level used for all axes)</td></tr><tr><td>Shock duration</td><td>30 ms</td></tr><tr><td>Number of shocks (per axis)</td><td>3 pos. und 3 neg.</td></tr><tr><td>Test directions</td><td>X, Y and Z axes</td></tr></table>	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
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Number of shocks (per axis)	3 pos. und 3 neg.																																																	
Test directions	X, Y and Z axes																																																	
Continuous operating temperature	-60 ... +105 °C																																																	



Environmental Testing		
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	4055143274098
Customs tariff number	85369010000

Product Classification	
UNSPSC	39121410
eCl@ss 10.0	27-14-11-41
eCl@ss 9.0	27-14-11-41
ETIM 9.0	EC000901
ETIM 10.0	EC000901
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 Conformity WAGO GmbH & Co. KG	-	-
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
Railway WAGO GmbH & Co. KG	-	Railway Ready
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for hazardous areas

AEx   IECEX		
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 2000-2247	

Documentation

Bid Text			
2000-2247	19.02.2019	xml 3.80 KB	
2000-2247	07.08.2018	docx 14.60 KB	

CAD/CAE-Data

CAD data	CAE data
2D/3D Models 2000-2247 	EPLAN Data Portal 2000-2247 
	WSCAD Universe 2000-2247 
	ZUKEN Portal 2000-2247 



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

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.: 2000-402/000-006**

Jumper; 2-way; insulated; blue

**Item No.: 2000-403/000-006**

Jumper; 3-way; insulated; blue

**Item No.: 2000-404**

Jumper; 4-way; insulated; light gray

**Item No.: 2000-405/000-005**

Jumper; 5-way; insulated; red

**Item No.: 2000-407/000-006**

Jumper; 7-way; insulated; blue

**Item No.: 2000-408**

Jumper; 8-way; insulated; light gray

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

Jumper; 9-way; insulated; red

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

Jumper; from 1 to 3; insulated; red

**Item No.: 2000-437**

Jumper; from 1 to 7; insulated; light gray

**Item No.: 2000-492**

Vertical jumper; insulated; light gray

**Item No.: 2000-410/000-006**

Jumper; 10-way; insulated; blue

**Item No.: 2000-402**

Jumper; 2-way; insulated; light gray

**Item No.: 2000-403**

Jumper; 3-way; insulated; light gray

**Item No.: 2000-404/000-005**

Jumper; 4-way; insulated; red

**Item No.: 2000-406/000-006**

Jumper; 6-way; insulated; blue

**Item No.: 2000-407**

Jumper; 7-way; insulated; light gray

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

Jumper; 8-way; insulated; red

**Item No.: 2000-440**

Jumper; from 1 to 10; insulated; light gray

**Item No.: 2000-434**

Jumper; from 1 to 4; insulated; light gray

**Item No.: 2000-438**

Jumper; from 1 to 8; insulated; light gray

**Item No.: 210-103**

Wire commoning chain; 0.5 mm²; insulated; black

**Item No.: 2000-410**

Jumper; 10-way; insulated; light gray

**Item No.: 2000-402/000-005**

Jumper; 2-way; insulated; red

**Item No.: 2000-403/000-005**

Jumper; 3-way; insulated; red

**Item No.: 2000-405/000-006**

Jumper; 5-way; insulated; blue

**Item No.: 2000-406**

Jumper; 6-way; insulated; light gray

**Item No.: 2000-407/000-005**

Jumper; 7-way; insulated; red

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

Jumper; 9-way; insulated; blue

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

Jumper; from 1 to 3; insulated; blue

**Item No.: 2000-435**

Jumper; from 1 to 5; insulated; light gray

**Item No.: 2000-439**

Jumper; from 1 to 9; insulated; light gray

**Item No.: 210-123**

Wire commoning chain; insulated; blue

**Item No.: 2000-410/000-005**

Jumper; 10-way; insulated; red

**Item No.: 2000-402/000-018**

Jumper; 2-way; insulated; yellow-green

**Item No.: 2000-404/000-006**

Jumper; 4-way; insulated; blue

**Item No.: 2000-405**

Jumper; 5-way; insulated; light gray

**Item No.: 2000-406/000-005**

Jumper; 6-way; insulated; red

**Item No.: 2000-408/000-006**

Jumper; 8-way; insulated; blue

**Item No.: 2000-409**

Jumper; 9-way; insulated; light gray

**Item No.: 2000-433**

Jumper; from 1 to 3; insulated; light gray

**Item No.: 2000-436**

Jumper; from 1 to 6; insulated; light gray

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

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





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



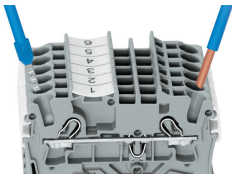
Item No.: 210-647
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured

Installation Notes

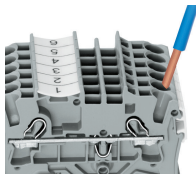
Conductor termination



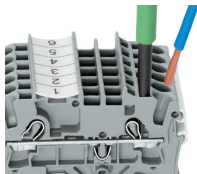
All conductor types at a glance



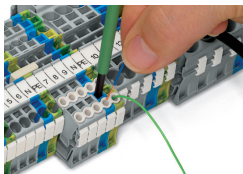
Push-in termination of solid and ferruled conductors



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.

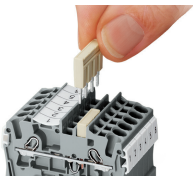
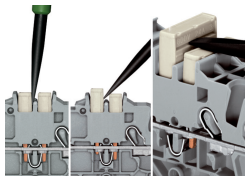


Inserting a conductor via operating tool:
Connecting fine-stranded conductors without ferrules, or small cross-sectional conductors that cannot be pushed in, is performed similarly to the original CAGE CLAMP® – just use an operating tool.
Advantage:
To open the clamp, the operating tool is inserted vertically.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



Conductor termination – insulation stop

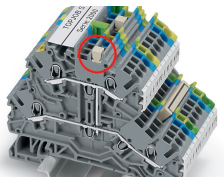
Commoning



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.

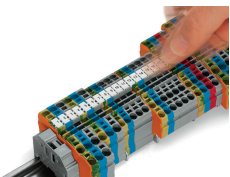
Insert push-in type jumper bar and push down until it hits backstop.

Commoning

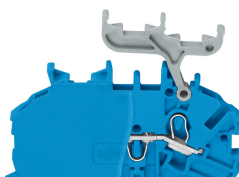
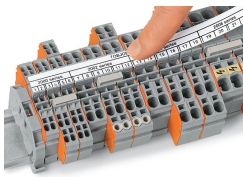


Commoning two levels via double-deck vertical jumper (Item No. 2000-492).

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.