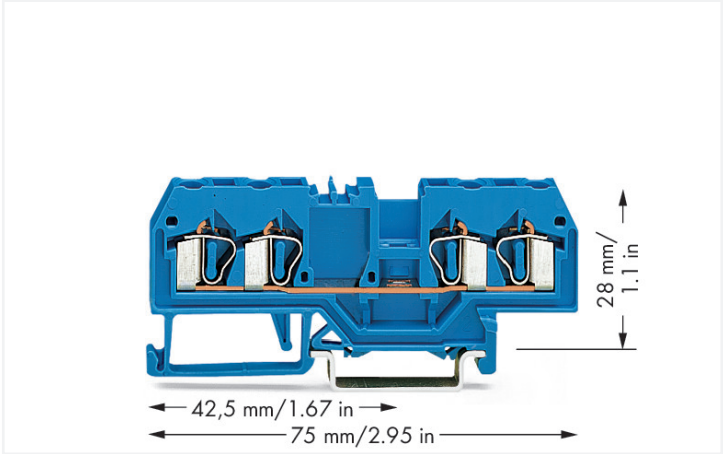


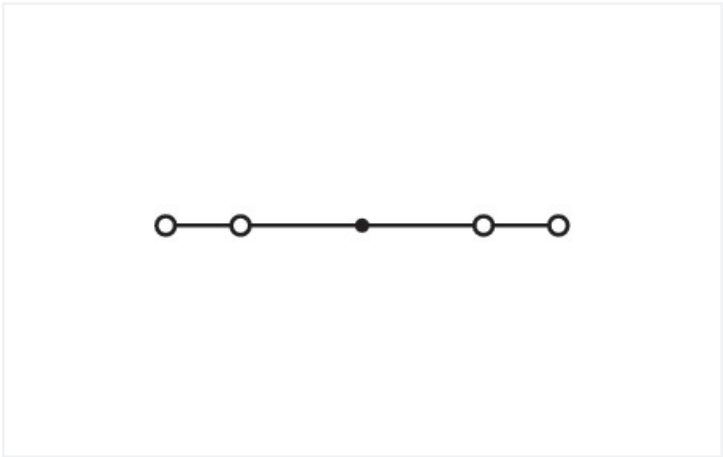
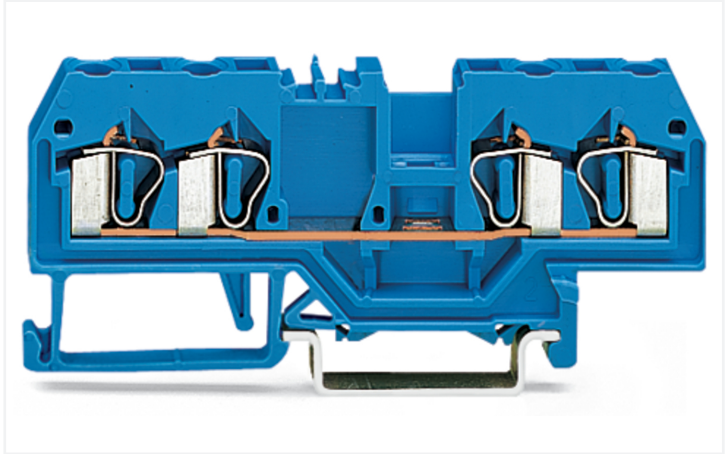
Data Sheet | Item Number: 280-834

4-conductor through terminal block; 2.5 mm²; suitable for Ex i applications; center marking; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 2,50 mm²; blue

<https://www.wago.com/280-834>



Color: ■ blue



Similar to illustration

Through terminal block, 280 Series, blue

This through terminal block (item number 280-834) is designed for quick and simple connections. Whether for use in industry or building installations, our rail-mount through terminal blocks allow you to quickly and securely connect electrical conductors. They're perfect for either classic through-wiring or distributing potential, depending on the variant. This through rail-mount terminal block has a rated voltage of 800 V and can handle currents up to 20 A. Conductors can only be connected to this through terminal block if their strip length is between 8 mm and 9 mm. This product incorporates conductor terminals and utilizes CAGE CLAMP®. Our reliable and maintenance-free CAGE CLAMP® connection makes it easy to connect all conductor types without having to prepare the conductor. For example, you don't need to crimp ferrules. This through terminal block is suitable for conductor cross sections ranging from 0.08 mm² to 2.5 mm². It has one level. You can connect a single potential using the four clamping points. The blue housing is made of polyamide (PA66) for insulation. This through rail-mount terminal block is operated with an operating tool. These through rail-mount terminal blocks are mounted using DIN-35 rails.. You can connect copper, aluminum conductors thanks to front-entry wiring.

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	- 600 V -
Nominal voltage	800 V	-	-		Rated current	- 20 A -
Rated impulse withstand voltage	8 kV	-	-			
Rated current	20 A	-	-			



Approvals per		CSA 22.2 No 158		
Use group	B	C	D	
Rated voltage	-	600 V	-	
Rated current	-	24 A	-	

Power Loss	
Power loss, per pole (potential)	0.532 W
Rated current I _N for power loss specification	20 A
Resistance value for specified, current-dependent power loss	0.00133 Ω

Connection data

Clamping units	4
Total number of potentials	1
Number of levels	1

Connection 1	
Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper Aluminum

Connectable conductor materials (note)	Terminating Aluminum Conductors WAGO Spring-Clamp Terminal Blocks are suitable for solid aluminum conductors up to 4 mm²/12 AWG if WAGO "Alu-Plus" Contact Paste 249-130 is used for termination. "Alu-Plus" Contact Paste Advantages: • Automatically destroys the oxide film during clamping. • Prevents fresh oxidation at the clamping point. • Prevents electrolytic corrosion between aluminum and copper conductors (in the same terminal block). • Provides long-term protection against corrosion. Using terminal blocks with CAGE CLAMP® Spring Pressure Connection Technology, aluminum conductors must first be cleaned with a blade and then immediately inserted into the clamping units filled with "Alu-Plus" contact paste. It is also possible to apply WAGO "Alu-Plus" additionally on the whole surface of the aluminum conductor before termination. Please note that the nominal currents must be adapted to the reduced conductivity of the aluminum conductors:: 2.5 mm² = 16 A 4 mm² = 22 A
Solid conductor	0.08 ... 2.5 mm² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm² / 28 ... 12 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches
Wiring direction	Front-entry wiring

Physical data

Width	5 mm / 0.197 inches
Height	75 mm / 2.953 inches
Depth from upper-edge of DIN-rail	28 mm / 1.102 inches



Mechanical data	
Mounting type	DIN-35 rail
Marking level	Center marking

Material data	
Note (material data)	Information on material specifications can be found here
Color	blue
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.118 MJ
Weight	9.3 g

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

Commercial data	
Product Group	1 (Rail Mounted Terminal Blocks)
PU (SPU)	100 pcs
Packaging type	Box
Country of origin	DE
GTIN	4044918311427
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 8.0	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	Approval	Standard	Certificate Name
CSA DEKRA Certification B.V.	C22.2	1536071	EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
KEMA/KEUR DEKRA Certification B.V.	EN 60947	71-154769	UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
UL Underwriters Laboratories Inc.	UL 1059	E45172			



Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	EN 60947	24-0152298-PDA
BV Bureau Veritas S.A.	EN 60947	07436/G0 BV
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE00001V2

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 280-834



Documentation

Bid Text			
280-834	19.02.2019	xml 3.24 KB	
280-834	28.02.2017	doc 24.00 KB	

CAD/CAE-Data

CAD data
2D/3D Models 280-834



CAE data
EPLAN Data Portal 280-834
WSCAD Universe 280-834
ZUKEN Portal 280-834



1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate

			
Item No.: 280-314 End and intermediate plate; 2.5 mm thick; gray	Item No.: 280-315 End and intermediate plate; 2.5 mm thick; orange	Item No.: 209-191 Separator for Ex e/Ex i applications; 3 mm thick; 120 mm wide; orange	Item No.: 280-334 Separator plate; 2 mm thick; oversized; gray
			
Item No.: 280-335 Separator plate; 2 mm thick; oversized; orange	Item No.: 284-336 Step-down cover plate; 1 mm thick; for 4-conductor 279-831, 280-833 and 281-652 terminal blocks; gray	Item No.: 284-346 Step-down cover plate; 1 mm thick; for 4-conductor 279-831, 280-833 and 281-652 terminal blocks; 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
			
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.: 216-301 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow	Item No.: 216-302 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; light turquoise	Item No.: 216-201 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; electrolytic copper; acc. to DIN 46228, Part 4/09.90; white	Item No.: 216-101 Ferrule; Sleeve for 0.5 mm ² / AWG 22; un-insulated; electro-tin plated; silver-colored
			
Item No.: 216-202 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	Item No.: 216-102 Ferrule; Sleeve for 0.75 mm ² / AWG 20; un-insulated; electro-tin plated; silver-colored	Item No.: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	Item No.: 216-103 Ferrule; Sleeve for 1 mm ² / AWG 18; un-insulated; electro-tin plated



1.2.2.1 Ferrule



Item No.: 216-204
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black



Item No.: 216-104
Ferrule; Sleeve for 1.5 mm² / AWG 16; un-insulated; electro-tin plated; silver-colored

1.2.3 Installation

1.2.3.1 Cover



Item No.: 709-153
Cover; Type 1; suitable for cover carrier, type 1; 1 m long; transparent

1.2.3.2 Cover carrier



Item No.: 709-167
Cover carrier; Type 1; 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

1.2.3.3 Mounting accessories



Item No.: 209-106
Mounting carrier; for isolated mounting on DIN 35 rails; gray



Item No.: 249-116
Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

1.2.4 Insulation stop

1.2.4.1 Insulation stop



Item No.: 280-470
Insulation stop; 0.08 - 0.2 mm² "s" (0.14 mm² "f-st"); 5 pieces/strip; white



Item No.: 280-471
Insulation stop; 0.25 - 0.5 mm²; 5 pieces/strip; light gray



Item No.: 280-472
Insulation stop; 0.75 - 1 mm²; 5 pieces/strip; black

1.2.5 Jumper

1.2.5.1 Jumper



Item No.: 280-490
Jumper; 10-way; insulated; gray



Item No.: 280-482
Jumper; 2-way; insulated; gray



Item No.: 280-492
Jumper; 2-way; insulated; gray



Item No.: 280-483
Jumper; 3-way; insulated; gray



Item No.: 280-484
Jumper; 4-way; insulated; gray



Item No.: 280-485
Jumper; 5-way; insulated; gray



Item No.: 280-402
Jumper; insulated; gray



Item No.: 280-409
Jumper; insulated; gray



1.2.5.1 Jumper

 Item No.: 280-422 Jumper; insulated; yellow-green	 Item No.: 780-452 Staggered jumper; from 1 to 2; insulated; gray	 Item No.: 780-453 Staggered jumper; from 1 to 3; insulated; gray	 Item No.: 780-454 Staggered jumper; from 1 to 4; insulated; gray
 Item No.: 780-455 Staggered jumper; from 1 to 5; insulated; gray	 Item No.: 780-456 Staggered jumper; from 1 to 6; insulated; gray	 Item No.: 780-457 Staggered jumper; from 1 to 7; insulated; gray	 Item No.: 780-458 Staggered jumper; from 1 to 8; insulated; gray
 Item No.: 284-414 Step-down jumper; from 284/282 to 281/280/279 series; insulated; gray	 Item No.: 709-110 Wire commoning chain; 2.5 mm²; insulated; black	 Item No.: 709-111 Wire commoning chain; 2.5 mm²; insulated; black	 Item No.: 709-112 Wire commoning chain; 2.5 mm²; insulated; black
 Item No.: 210-103 Wire commoning chain; insulated; black	 Item No.: 210-123 Wire commoning chain; insulated; blue		

1.2.6 Marking

1.2.6.1 Double marker carrier

 Item No.: 209-128 Adaptor; gray
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1.2.6.2 Group marker carrier

 Item No.: 209-140 Group marker carrier; gray	 Item No.: 209-141 Group marker carrier; gray	 Item No.: 209-142 Group marker carrier; gray	 Item No.: 249-105 Group marker carrier; gray
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1.2.6.3 Marker

 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.: 793-501 WMB marking card; as card; not stretchable; plain; snap-on type; white	 Item No.: 2009-115 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white
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1.2.7 Plug

1.2.7.1 Component module with diode

 Item No.: 280-803/281-411 Component plug; 2-pole; with diode 1N4007; 10 mm wide; gray	 Item No.: 280-803/281-420 Component plug; 2-pole; with rectifier diode and LED; 10 mm wide; gray	 Item No.: 280-803/281-421 Component plug; 2-pole; with rectifier diode and LED; 10 mm wide; gray
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1.2.7.2 Component module with LED



Item No.: 280-803/281-415
Component plug; 2-pole; LED (red); 10 mm wide; gray



Item No.: 280-803/281-416
Component plug; 2-pole; LED (red); 10 mm wide; gray



Item No.: 280-803/281-413
Component plug; 2-pole; LED (red); 24 VDC; 10 mm wide; gray



Item No.: 280-803/281-414
Component plug; 2-pole; LED (red); 48 VDC; 10 mm wide; gray



Item No.: 280-803/281-420
Component plug; 2-pole; with rectifier diode and LED; 10 mm wide; gray



Item No.: 280-803/281-421
Component plug; 2-pole; with rectifier diode and LED; 10 mm wide; gray

1.2.7.3 Empty component plug housing



Item No.: 280-803
Empty component plug housing; 10 mm wide; Type 4; 2-pole; gray

1.2.7.4 Neon indicator module



Item No.: 280-803/281-417
Component plug; 2-pole; 10 mm wide; gray



Item No.: 280-803/281-418
Component plug; 2-pole; 10 mm wide; gray

1.2.8 Protective warning marker

1.2.8.1 Cover



Item No.: 280-415
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

1.2.9 Push-in type wire jumper

1.2.9.1 Jumper



Item No.: 249-126
Push-in type wire jumper; 0.75 mm²; insulated; 110 mm long; black



Item No.: 249-123
Push-in type wire jumper; 0.75 mm²; insulated; 180 mm long; black



Item No.: 249-127
Push-in type wire jumper; 0.75 mm²; insulated; 250 mm long; black



Item No.: 249-125
Push-in type wire jumper; insulated; 60 mm long; black

1.2.10 Test and measurement

1.2.10.1 Testing accessories



Item No.: 249-107
B-type spacer module; modular; e.g., for bridging commoned terminal blocks; gray



Item No.: 249-106
B-type test plug module; modular; 1,50 mm²; gray



Item No.: 249-147
B-type test plug module; modular; 2,50 mm²; gray



Item No.: 249-142
L-type end module; modular; with rigid contact pin; End module; 1,50 mm²; gray



Item No.: 249-143
L-type spacer module; modular; e.g., bridging commoned terminal blocks; gray



Item No.: 249-141
L-type test plug module; modular; with spring-loaded contact pin; Center module; 1,50 mm²; gray



Item No.: 280-419
Spacer module; modular; bridging commoned terminal blocks; gray



Item No.: 280-404
Test plug adapter; 5 mm wide; for test plug (2.3 mm Ø); suitable for 1.5 mm² - 4 mm² tbs; gray



Item No.: 209-170
Test plug adapter; 8.3 mm wide; for 4 mm Ø test plugs; suitable for 1.5 mm² - 10 mm² tbs; gray



Item No.: 280-418
Test plug module; modular; suitable for all WAGO 280 and 780 Series rail-mounted terminal blocks with jumper slots in the current bar; gray



Item No.: 281-407
Test plug; 6 mm wide; Nominal current 24 A; for 0.08 mm² - 2.5 mm²; gray

1.2.11 Tool

1.2.11.1 Operating tool



Item No.: 210-658
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured



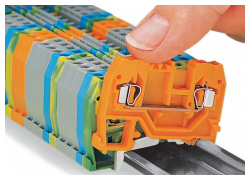
Item No.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured



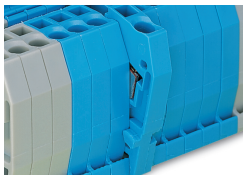
Item No.: 210-657
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

Installation Notes

Installation



Snapping a terminal block onto the DIN-rail.



Quick assembly keys prevent reverse mounting.



Removing a terminal block from the assembly.

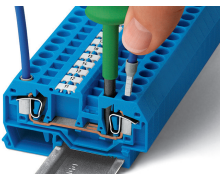


Steel DIN-rails are not suited for PEN (ground and N-conductor) applications per EN 60947-7-2 (VDE 0611, Part 3).

Conductor termination



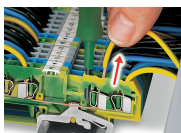
CAGE CLAMP® connection
Inserting a conductor.



CAGE CLAMP® connection
Inserting a conductor.
With ferruled conductors, it is necessary to use a terminal block one size larger than the conductor's nominal cross-section.

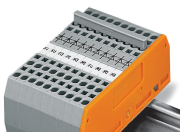
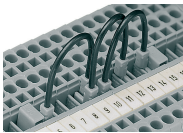
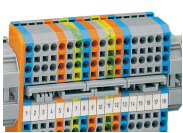


Inserting insulation stops.



CAGE CLAMP® connection
Removing a solid conductor.

Commoning



Commoning using an adjacent jumper. Push jumper down until fully inserted!

Staggered jumpers are suitable for sophisticated circuit requirements. Push jumpers down until fully inserted!

Push-In Type Wire Jumpers
When installing machines or control systems, it is often necessary to make an additional connection between two terminal blocks that are not next to each other on the rail. In such cases, WAGO's touch-proof, push-in type wire jumpers are the ideal solution.

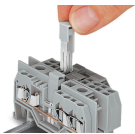
These jumpers are compatible with the following rail-mount terminal blocks:

- 279 Series (1.5 mm²/16 AWG),
- 280/775/780 Series (2.5 mm²/14 AWG)
- 281/769/776/777/781 and 880 Series (4 mm²/12 AWG)

They are available in three conductor lengths (60, 110 and 250 mm), allowing up to 60 terminal blocks to be commoned depending on their width (see table on the right).

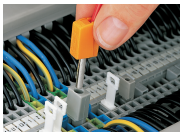
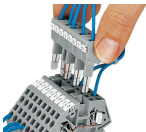
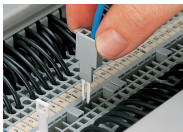
The 280/775/780 and 281/776/777/781 Series Terminal Blocks accept two wire jumpers, allowing the use of commoning chains. Furthermore, the 280/769/775/780/880 and 281/776/777/781 Series allow both wire jumper and adjacent jumper to be simultaneously plugged into a same terminal block.

Commoning using comb-style jumper bars: Push comb-style jumper bars down until fully inserted.



Commoning terminal blocks of different sizes via step-down jumpers.

Testing

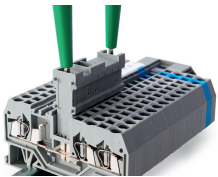


Testing with a test plug. Picture shows a test plug fitted with CAGE CLAMP®.

L-type test plug modules fitted with CAGE CLAMP®

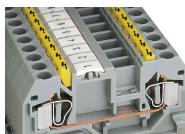
B-type test plug modules fitted with CAGE CLAMP®

Testing with a test plug. Picture shows a test plug adapter (209-170).



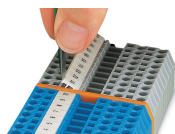
Test plugs modules are directly plugged into the jumper contact slot of the current bar.

Cover

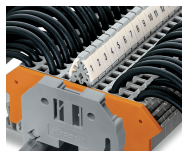


Protective warning markers inserted into the operating slots

Marking



Labeling via WMB Multi Marking System.



Terminal block marking with double marker carriers (209-128) Terminal blocks with side marking