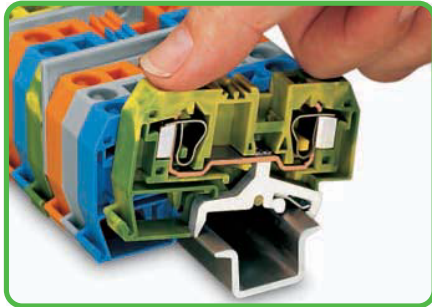


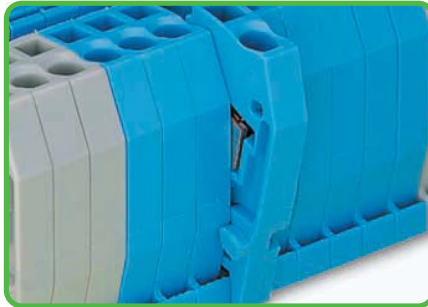
# Rail-Mounted Terminal Blocks 279 to 285 Series and 880 Series

## Assembly



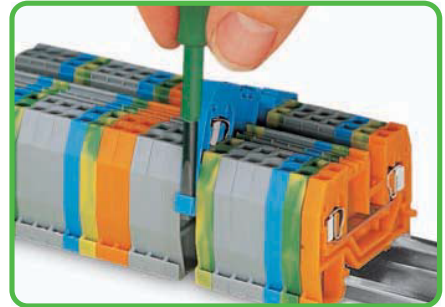
By snapping a ground conductor terminal block onto the carrier rail, a direct electrical connection is automatically made to the rail.

## Assembly



Quick assembly keys prevent reverse mounting.

## Removal



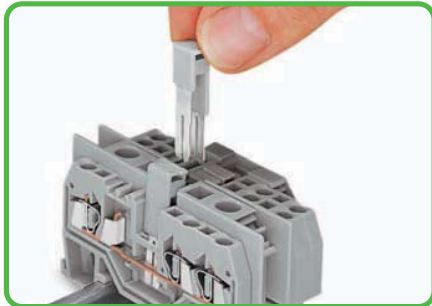
Removing a terminal block from the assembly.

## Commoning



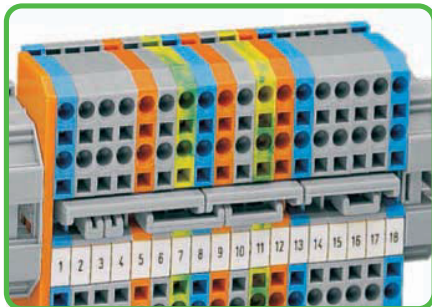
Commoning ground conductor terminal blocks with through terminal blocks is possible in one direction only (via rear side of terminal block) using adjacent jumpers. In addition to the required marking of these blocks, use yellow-green adjacent jumpers.

## Commoning with step-down jumpers



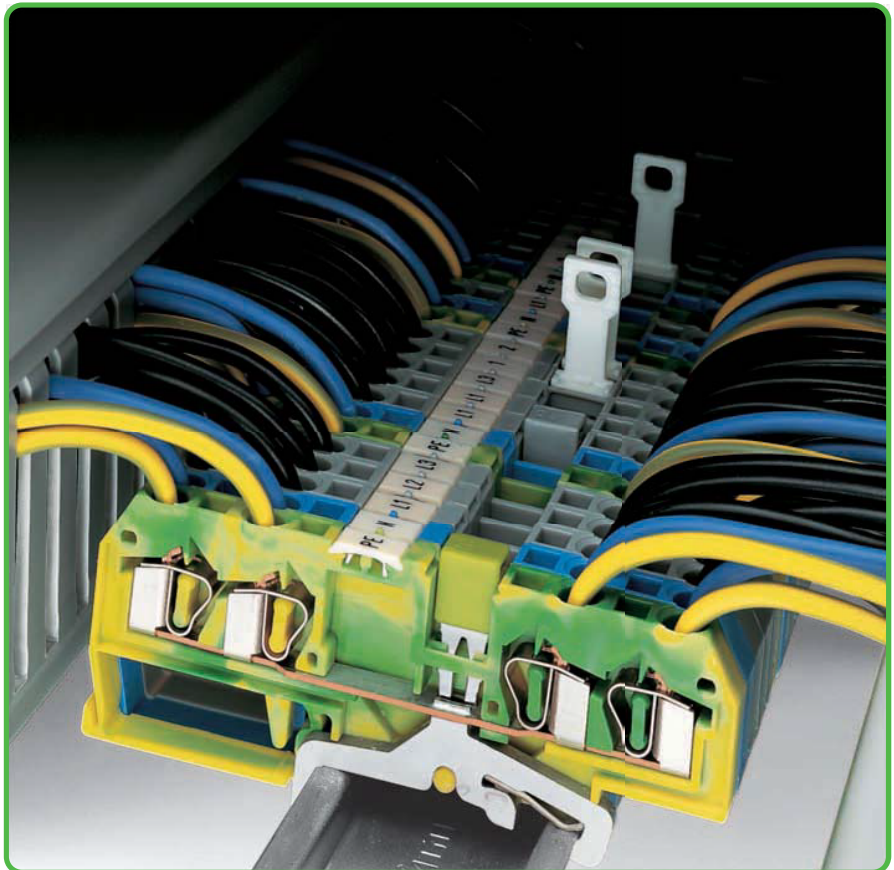
Commoning terminal blocks of different sizes – step down.  
For application notes, see page 178.

## Commoning

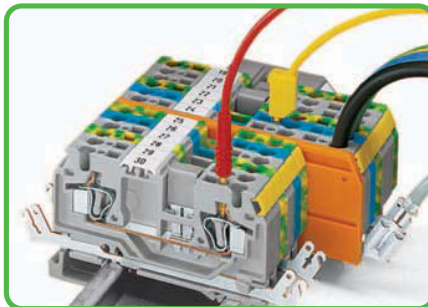


Staggered jumpers for sophisticated circuit requirements. Push jumpers down firmly until fully inserted. For additional notes, see page 201.

According to EN 60947-7-2 (VDE 0611, part 3), steel carrier rails shall not be used for PEN applications

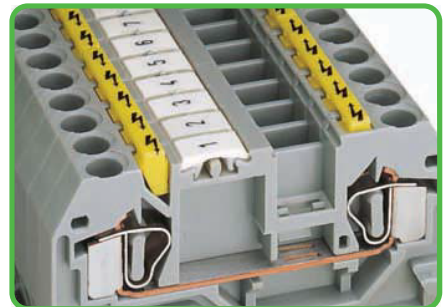


## Testing - 880 Series



880 Series terminal blocks have an additional test slot for 2 mm Ø or 2.3 mm Ø test plugs.

## Protective warning marker



Protective warning markers inserted into the operating slots.

**CAGE CLAMP®**  
clamps the following  
copper conductors:\*

solid

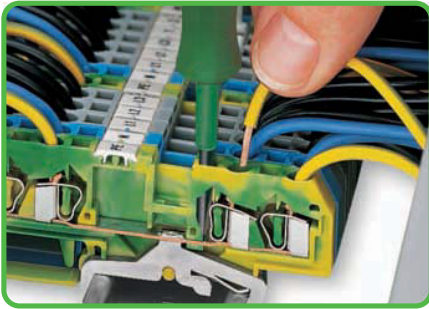
stranded

fine-stranded,  
also with tinned  
single strands

\* For aluminum conductors, see notes in Section 14.

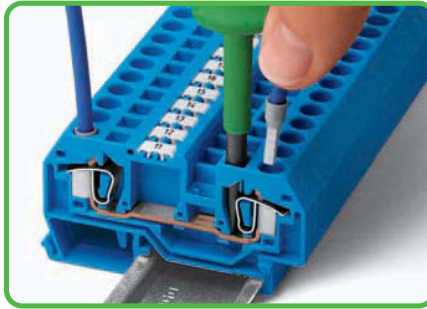
- Description and Handling -

CAGE CLAMP® connection



Conductor termination

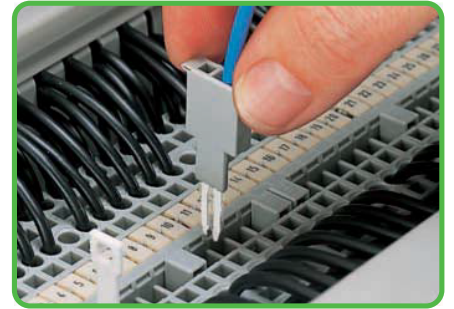
CAGE CLAMP® connection



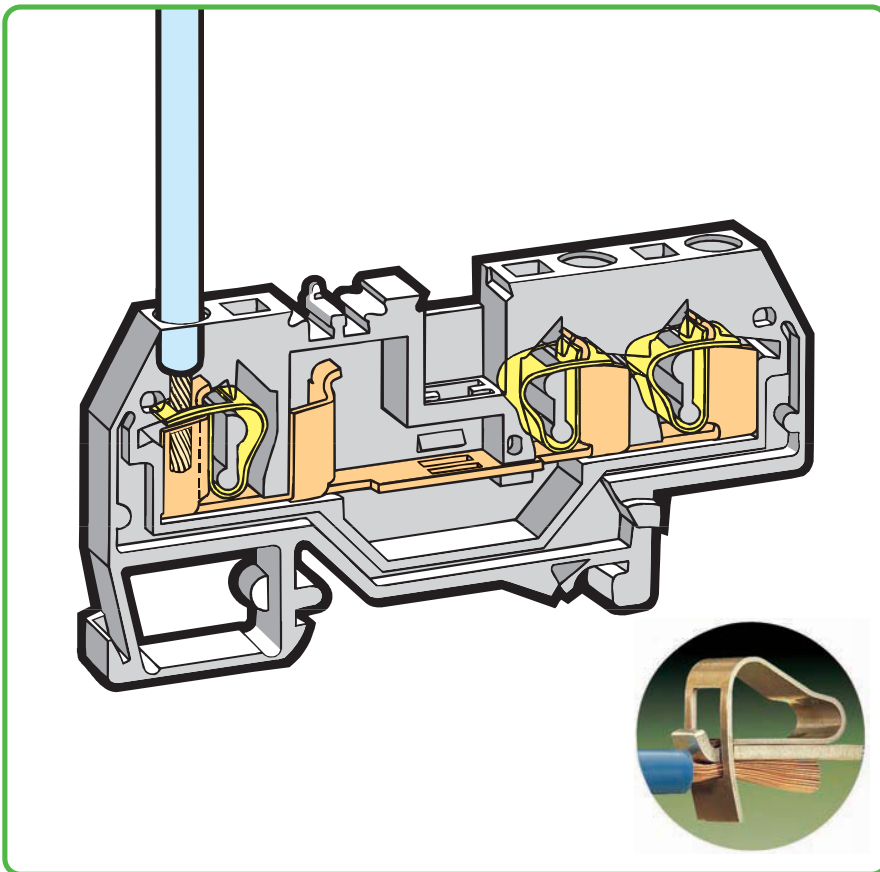
Conductor termination

❶ When using ferruled conductors, it is necessary to use a terminal block one size larger than the nominal cross section of the wire.

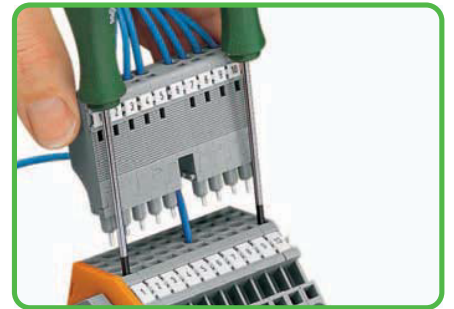
Testing



Testing with test plug.  
Test plug fitted with CAGE CLAMP®.

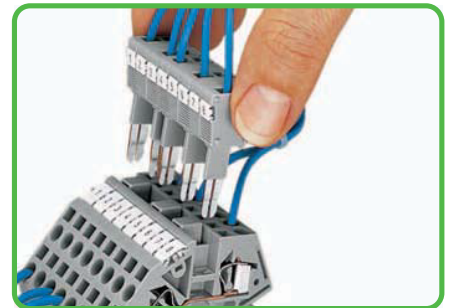


Testing



L-type test plug modules fitted with CAGE CLAMP®.  
For application notes, see page 194.

Testing



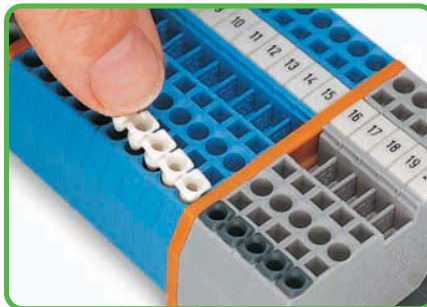
B-type test plug modules fitted with CAGE CLAMP®.  
For application notes, see page 195.

Marking



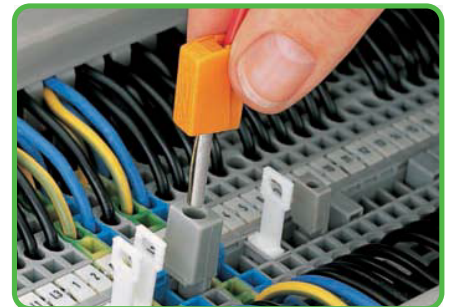
Marking with WMB Multi marking system.  
For additional systems, see Section 13.

Insulation stop



Insertion of insulation stop.  
For application notes, see page 199.

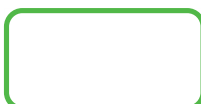
Testing



Testing with test plug.  
Using 209-170 test plug adapter.



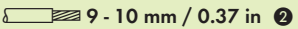
fine-stranded,  
tip-bonded

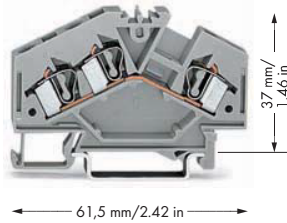


fine-stranded,  
with ferrule ❶  
(gastight crimped)



fine-stranded,  
with pin terminal  
(gastight crimped)

0.08 - 4 mm <sup>2</sup>	AWG 28 - 12
800 V/8 kV/3 ①	600 V, 20 A ②
I <sub>N</sub> 32 A	600 V, 25 A ③
Terminal block width 6 mm / 0.236 in	
 9 - 10 mm / 0.37 in ②	



- ① 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree  
(also see Section 14)
- ② Strip length, see packaging or instructions.
- ③ Suitable for Ex i applications
- ④ Suitable for Ex e ll applications  
0.2 mm<sup>2</sup> - 4 mm<sup>2</sup>/AWG 24 - 12  
550 V, 30 A  
(also see Section 14)  
Using staggered jumper reduces the maximum rated voltage to 275 V.
- ⑤ See application notes for:  
Test plug modules, pages 194 - 196  
Banana plug, page 198  
Insulation stop, page 199  
Comb-style jumper bar, page 200  
Operating tool, page 200  
Staggered jumper, page 201  
Push-in type wire jumper, page 201  
Step-down jumper, pages 178 - 179

Item No.	Pack. Unit	281 Series Accessories	
Appropriate marking systems: WMB/WFB (see Section 13)			
<b>3-conductor through terminal block</b>		<b>Adjacent jumper, insulated,</b>	<b>Step-down jumper, insulated,</b>
gray 281-631	100	I <sub>N</sub> = I <sub>N</sub> terminal block	I <sub>N</sub> 30 A
blue 281-651 ③	100	gray 281-402 200 (8x25)	gray 284-413 50 (2x25)
light gray ④ 281-998 ④	100	yellow-green 281-422 200 (8x25)	
<b>3-conductor ground terminal block</b>		<b>Alternate jumper, insulated,</b>	<b>Cover plate,</b>
green-yellow 281-637	100	I <sub>N</sub> = I <sub>N</sub> terminal block	1 mm thick
green-yellow ④ 281-637/999-950 ④	100	gray 281-409 100 (4x25)	gray 284-334 100
			orange 284-344 100
		<b>Push-in type wire jumper,</b>	<b>Test plug module,</b>
		⑤ insulated,	⑤ can be snapped together,
		I <sub>N</sub> 9 A,	6 mm wide
		wire size 0.75 mm <sup>2</sup>	gray 281-418 100 (4x25)
		L = 60 mm 249-125 10	<b>Spacer module,</b>
		L = 110 mm 249-126 10	can be snapped together,
		L = 250 mm 249-127 10	6 mm wide
			gray 281-419 100 (4x25)
		<b>Staggered jumper,</b>	<b>Test plug,</b>
		⑤ insulated,	with 500 mm cable,
		width 6 mm/0.236 in,	2 mm Ø
		I <sub>N</sub> 32 A	red 210-136 50
		from 1 to 2 781-452 100 (4x25)	<b>Test plug,</b>
		from 1 to 3 781-453 100 (4x25)	with 500 mm cable,
		from 1 to 4 781-454 100 (4x25)	2.3 mm Ø
		from 1 to 5 781-455 50 (2x25)	yellow 210-137 50
		from 1 to 6 781-456 50 (2x25)	<b>Test plug adapter, 5 mm wide,</b>
			for terminal blocks 1.5 - 4 mm <sup>2</sup> ,
			for 210-137 test plug 2.3 mm Ø
			gray 280-404 100 (4x25)
<b>Item-Specific Accessories</b>		<b>Comb-style jumper bar, insulated,</b>	<b>Test plug adapter, 8.3 mm wide,</b>
<b>End and intermediate plate, 2.5 mm thick</b>		⑤ I <sub>N</sub> = I <sub>N</sub> terminal block	for terminal blocks 1.5 - 10 mm <sup>2</sup> ,
orange 281-313 100 (4x25)		2-way 281-482 100 (4x25)	for test plug 4 mm Ø
gray 281-312 100 (4x25)		3-way 281-483 100 (4x25)	gray 209-170 50 (2x25)
light gray 281-357 100 (4x25)		5-way 281-485 100 (4x25)	<b>Banana plug,</b>
<b>Separator, oversized, 2 mm thick</b>		10-way 281-490 50 (2x25)	⑤ for socket 4 mm Ø,
gray 281-318 100 (4x25)			color mixed
gray 281-348 100 (4x25)			215-111 50
light gray 281-358 100 (4x25)			
<b>Ex e/Ex i separator, orange,</b>		<b>Alternate comb-style jumper bar,</b>	<b>Test plug adapter, 6 mm wide,</b>
3 mm thick		insulated,	with CAGE CLAMP®,
120 mm 209-191 50 (2x25)		I <sub>N</sub> = I <sub>N</sub> terminal block	for 0.08 - 2.5 mm <sup>2</sup>
		2-way 281-492 100 (4x25)	I <sub>N</sub> 24 A 281-407 100 (4x25)
		<b>Operating tool, of insulating material</b>	<b>Screwless end stop,</b>
		2-way 280-432 1	for DIN 35 rail,
		3-way 280-433 1	6 mm wide
		5-way 281-440 1	gray 249-116 100 (4x25)
<b>Protective warning marker,</b>		<b>Step-down jumper, insulated,</b>	<b>Screwless end stop,</b>
with high-voltage symbol, black,		⑤ I <sub>N</sub> 15 A	for DIN 35 rail,
for 5 terminal blocks		gray 284-414 50 (2x25)	10 mm wide
yellow 281-415 100 (4x25)			gray 249-117 50 (2x25)