

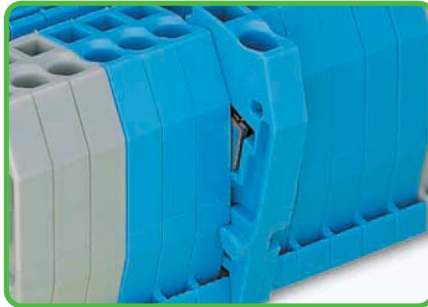
# Rail-Mounted Terminal Blocks 279 to 285 Series and 880 Series

## Assembly



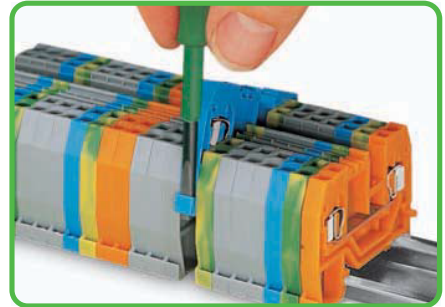
By snapping a ground conductor terminal block onto the carrier rail, a direct electrical connection is automatically made to the rail.

## Assembly



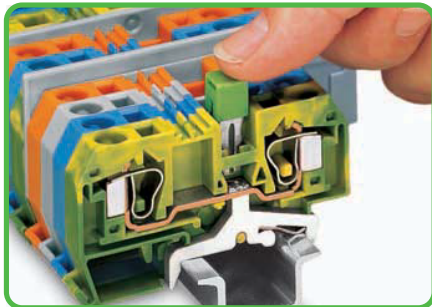
Quick assembly keys prevent reverse mounting.

## Removal



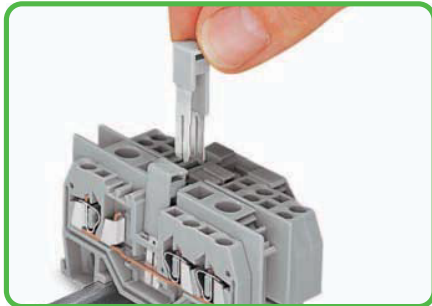
Removing a terminal block from the assembly.

## Commoning



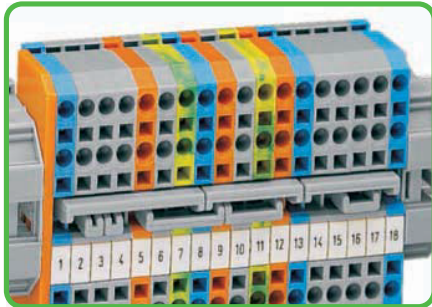
Commoning ground conductor terminal blocks with through terminal blocks is possible in one direction only (via rear side of terminal block) using adjacent jumpers. In addition to the required marking of these blocks, use yellow-green adjacent jumpers.

## Commoning with step-down jumpers



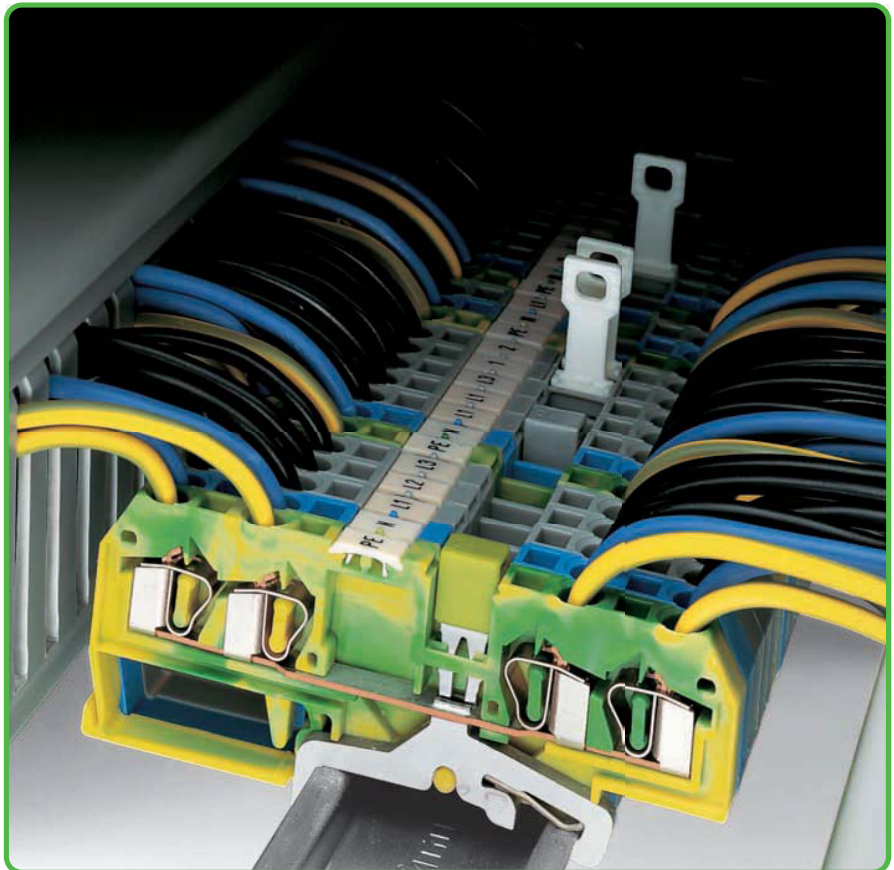
Commoning terminal blocks of different sizes – step down.  
For application notes, see page 178.

## Commoning

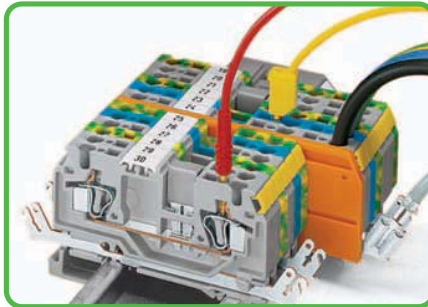


Staggered jumpers for sophisticated circuit requirements. Push jumpers down firmly until fully inserted. For additional notes, see page 201.

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

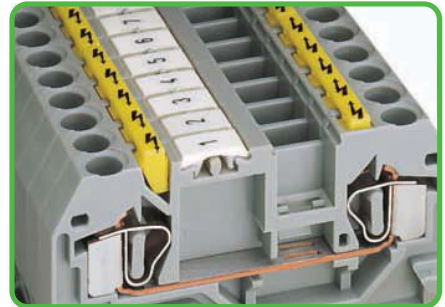


## Testing - 880 Series

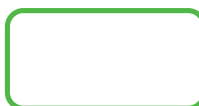


880 Series terminal blocks have an additional test slot for 2 mm Ø or 2.3 mm Ø test plugs.

## Protective warning marker

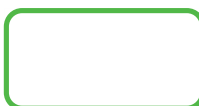


Protective warning markers inserted into the operating slots.

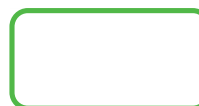


**CAGE CLAMP®**  
clamps the following  
copper conductors:\*

solid



stranded

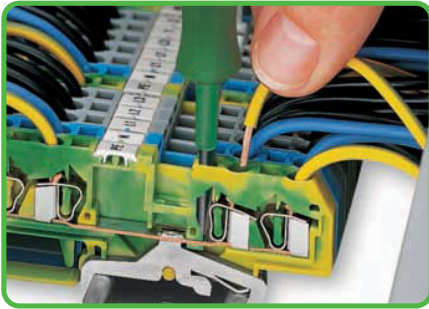


fine-stranded,  
also with tinned  
single strands

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

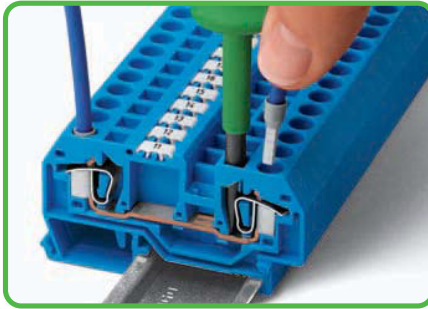
- Description and Handling -

CAGE CLAMP® connection



Conductor termination

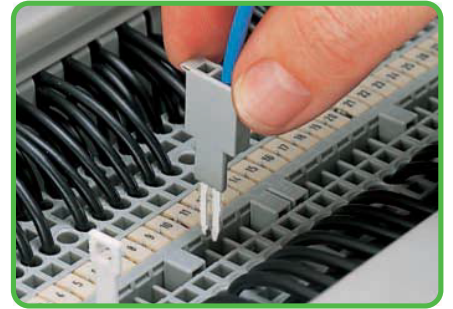
CAGE CLAMP® connection



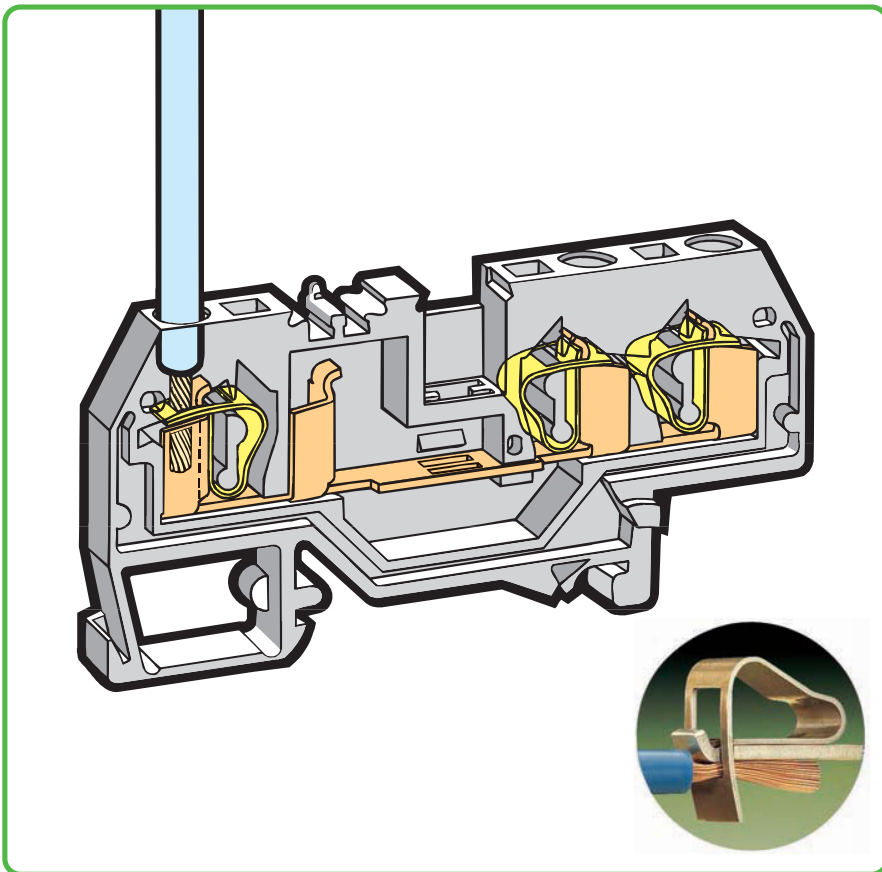
Conductor termination

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

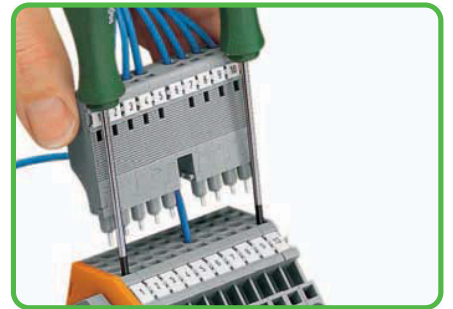
Testing



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

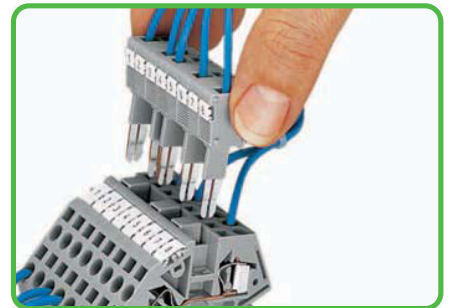


Testing



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

Testing



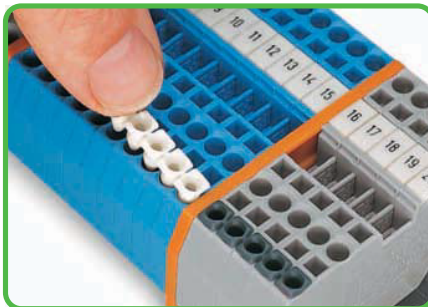
B-type test plug modules fitted with CAGE CLAMP®.  
For application notes, see page 195.

Marking



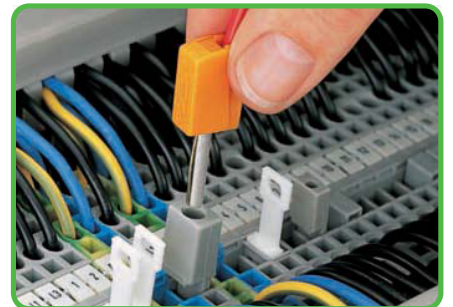
Marking with WMB Multi marking system.  
For additional systems, see Section 13.

Insulation stop

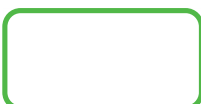


Insertion of insulation stop.  
For application notes, see page 199.

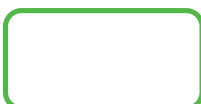
Testing



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



fine-stranded,  
tip-bonded



fine-stranded,  
with ferrule ❶  
(gastight crimped)

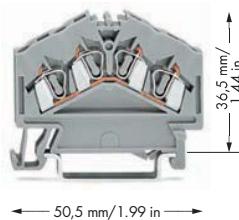


fine-stranded,  
with pin terminal  
(gastight crimped)



# Through and Ex Terminal Blocks 2.5 mm<sup>2</sup> 280 Series

0.08 - 2.5 mm <sup>2</sup>	AWG 28 - 12 *
800 V/8 kV/3 ①	600 V, 20 A <sup>②</sup>
I <sub>N</sub> 24 A	600 V, 25 A <sup>③</sup>
Terminal block width 5 mm / 0.197 in	
8 - 9 mm / 0.33 in ②	



\* AWG 12: THHN, THWN

① 800 V = rated voltage  
8 kV = rated surge voltage  
3 = pollution degree

(also see Section 14)

② Strip length, see packaging or instructions.

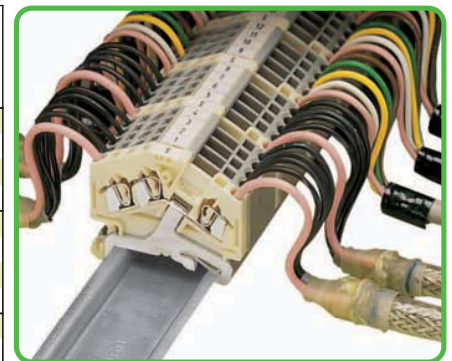
③ Suitable for Ex i applications

④ Suitable for Ex e II applications  
0.2 mm<sup>2</sup> - 2.5 mm<sup>2</sup>/AWG 24 - 12\*  
550 V, 23 A  
(also see Section 14)

⑤ See application notes for:  
Test plug module, page 194  
Insulation stop, page 199  
Comb-style jumper bar, page 200  
Operating tool, page 200



Item No.	Pack. Unit	280 Series Accessories
<b>4-conductor through terminal block</b>		Appropriate marking systems (see Section 13)
gray	280-646 100	<b>Alternate comb-style jumper bar,</b> insulated, I <sub>N</sub> = I <sub>N</sub> terminal block
blue	280-656 ③ 100	
orange	280-946 100	
light gray ⑤	280-996 ④ 100	
<b>Notice:</b> These terminal blocks cannot be commoned using adjacent jumpers		<b>Operating tool,</b> of insulating material
<b>280 Series Accessories</b>		2-way 280-432 1
		3-way 280-433 1
		<b>Operating tool,</b> of insulating material
		10-way 280-440 1
<b>End and intermediate plate, 2.5 mm thick</b>		<b>Protective warning marker,</b>
orange	280-313 100 (4x25)	with high-voltage symbol, black,
gray	280-312 100 (4x25)	for 5 terminal blocks
light gray	280-354 100 (4x25)	yellow 280-415 100 (4x25)
<b>Separator, oversized, 2.5 mm thick</b>		<b>L-type test plug module,</b>
orange	280-318 100 (4x25)	can be snapped together,
gray	280-348 100 (4x25)	5 mm wide
light gray	280-355 100 (4x25)	gray 249-141 100 (4x25)
<b>Ex e/Ex i separator, orange,</b>		<b>WMB Inline, plain,</b>
3 mm thick		stretchable 5 - 5.2 mm,
120 mm	209-191 50 (2x25)	1,500 WMB markers, 5 mm, on roll
		white 2009-115 1
<b>Spacer of same shape,</b>		<b>WMB Multi marking system,</b>
5 mm thick		10 strips with 10 markers per card,
orange	280-654/056-000	stretchable 5 - 5.2 mm
	100 (4x25)	plain 793-5501 5
<b>Insulation stop,</b>		<b>WMB Multi marking system, plain,</b>
⑤ 5 pcs/strip,		10 strips with 10 markers per card,
0.08 - 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st")		stretchable 5 - 5.2 mm
white	280-470 200 (8x25)	yellow 793-5501/000-002
<b>Insulation stop,</b>		red 793-5501/000-005
⑤ 5 pcs/strip,		blue 793-5501/000-006
0.25 - 0.5 mm <sup>2</sup>		gray 793-5501/000-007
light gray	280-471 200 (8x25)	orange 793-5501/000-012
<b>Insulation stop,</b>		light green 793-5501/000-017
⑤ 5 pcs/strip,		green 793-5501/000-023
0.75 - 1 mm <sup>2</sup>		violet 793-5501/000-024
dark gray	280-472 200 (8x25)	5
<b>Comb-style jumper bar, insulated,</b>		<b>Screwless end stop,</b>
⑤ I <sub>N</sub> = I <sub>N</sub> terminal block		for DIN 35 rail,
2-way	280-482 200 (8x25)	6 mm wide
3-way	280-483 200 (8x25)	gray 249-116 100 (4x25)
<b>Comb-style jumper bar, insulated,</b>		<b>Screwless end stop,</b>
I <sub>N</sub> = I <sub>N</sub> terminal block		for DIN 35 rail,
10-way	280-490 50 (2x25)	10 mm wide
		gray 249-117 50 (2x25)



Application example for shield terminal blocks

Shielded control cables are becoming an increasingly common solution to external signal interference. Shield terminal blocks for front-entry are suitable for connecting braided cables. Like ground conductor terminal blocks for front-entry, they are equipped with a grounding foot for direct electrical connection to the rail, however they differ significantly by their white insulated housing. Shield terminal blocks for front-entry can be directly mounted beside signal-conductor terminal blocks, providing excellent deflection of interfering signals.