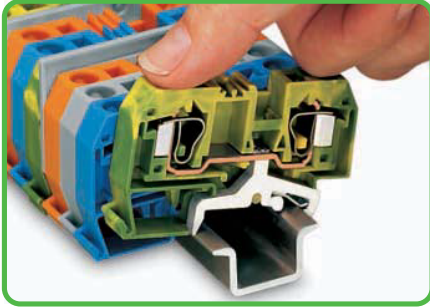


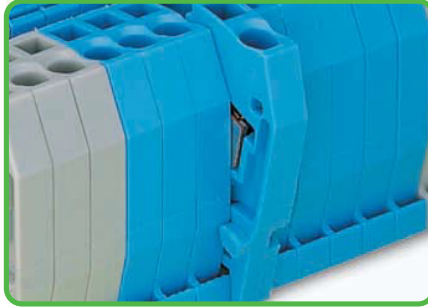
# Rail-Mounted Terminal Blocks 279 to 285 Series and 880 Series

## Assembly



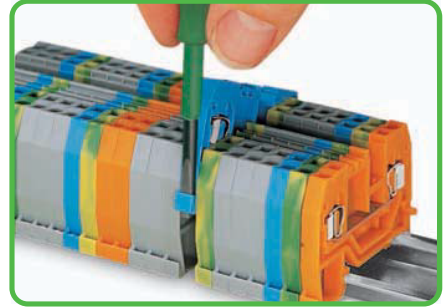
By snapping a ground conductor terminal block onto the carrier rail, a direct electrical connection is automatically made to the rail.

## Assembly



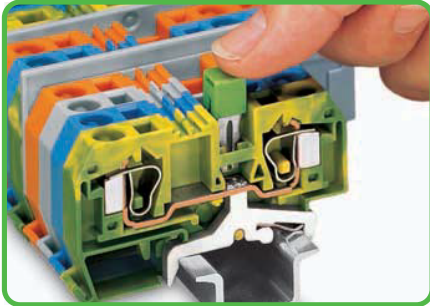
Quick assembly keys prevent reverse mounting.

## Removal



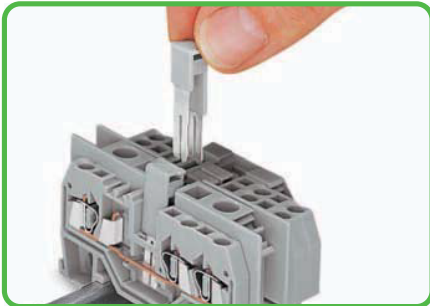
Removing a terminal block from the assembly.

## Commoning



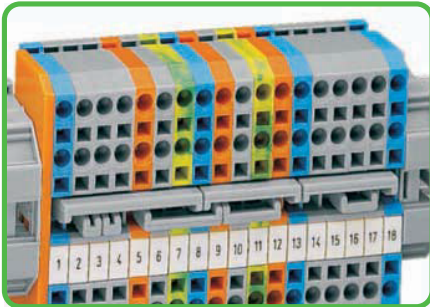
Commoning ground conductor terminal blocks with through terminal blocks is possible in one direction only (via rear side of terminal block) using adjacent jumpers. In addition to the required marking of these blocks, use yellow-green adjacent jumpers.

## Commoning with step-down jumpers



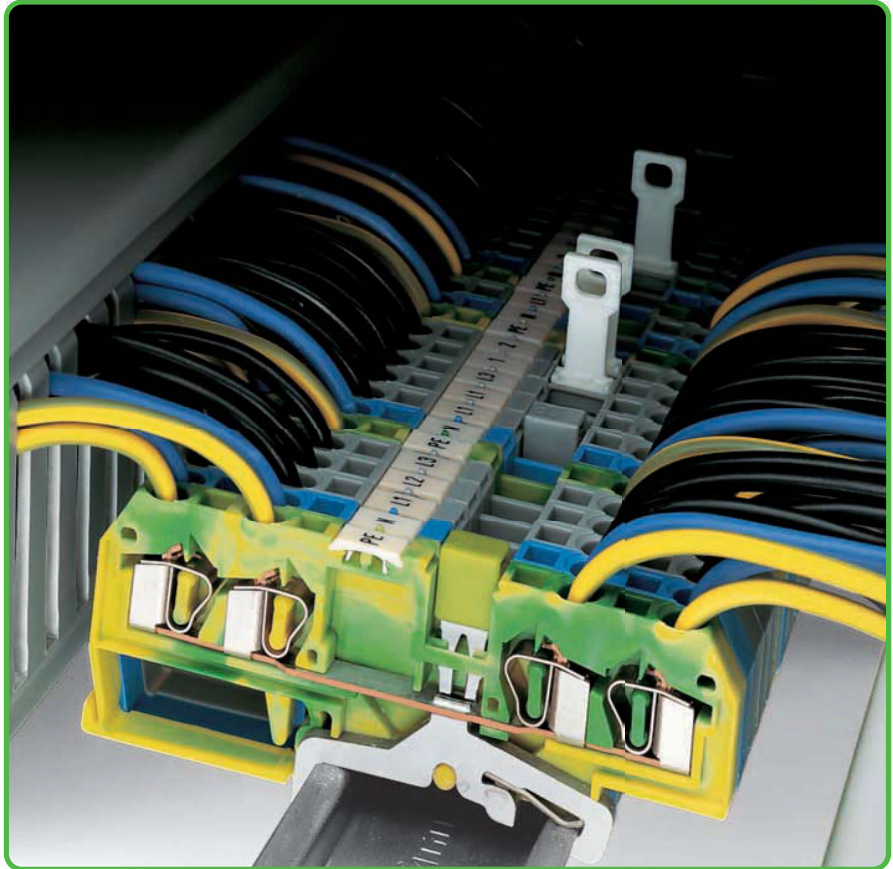
Commoning terminal blocks of different sizes – step down.  
For application notes, see page 178.

## Commoning

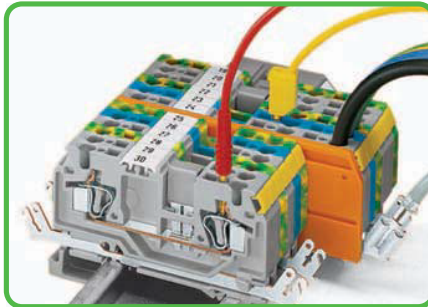


Staggered jumpers for sophisticated circuit requirements. Push jumpers down firmly until fully inserted. For additional notes, see page 201.

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

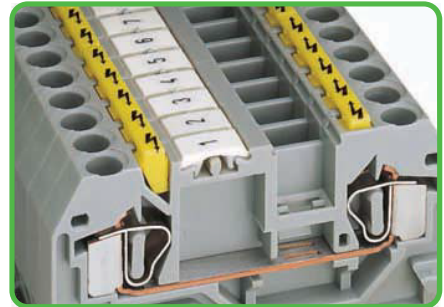


## Testing - 880 Series



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

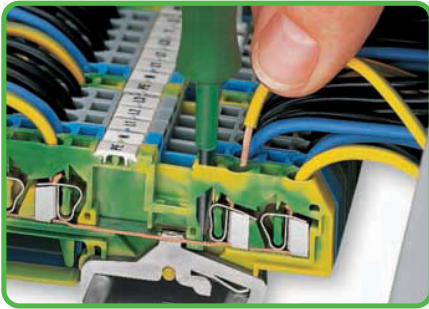
stranded

fine-stranded, also with tinned single strands

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

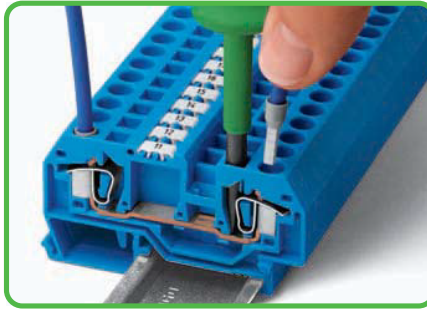
- Description and Handling -

CAGE CLAMP® connection



Conductor termination

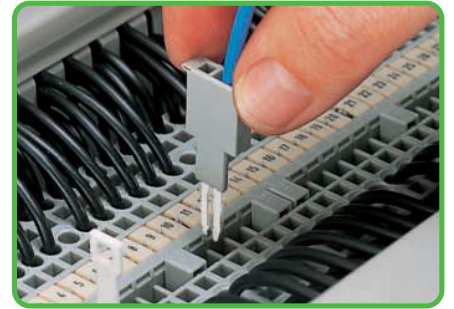
CAGE CLAMP® connection



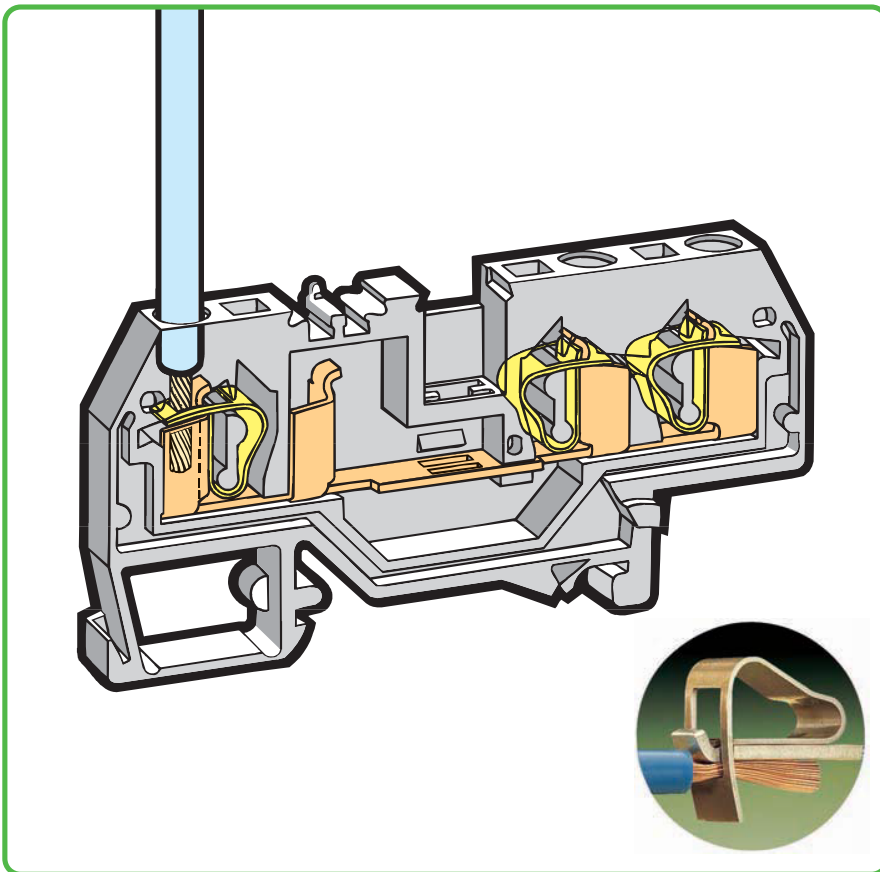
Conductor termination

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

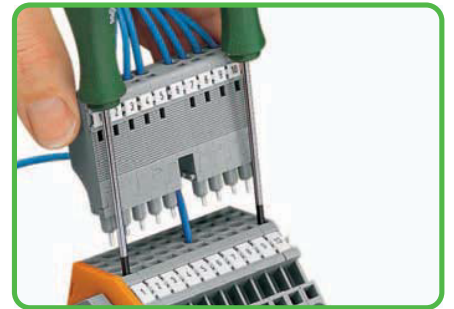
Testing



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

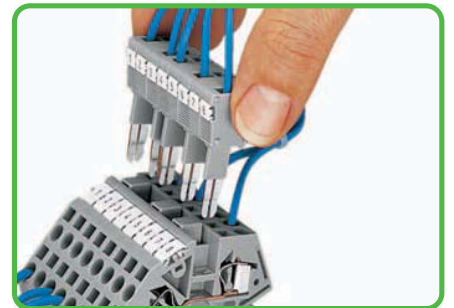


Testing



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

Testing



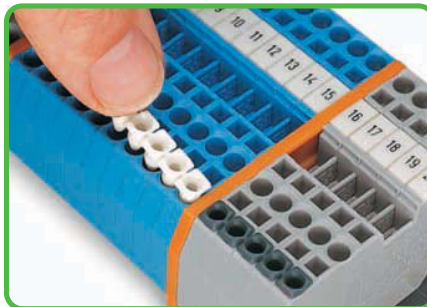
B-type test plug modules fitted with CAGE CLAMP®.  
For application notes, see page 195.

Marking



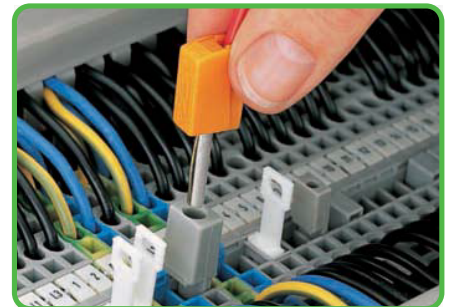
Marking with WMB Multi marking system.  
For additional systems, see Section 13.

Insulation stop



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

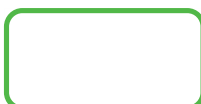
Testing



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



fine-stranded,  
tip-bonded



fine-stranded,  
with ferrule ❶  
(gastight crimped)

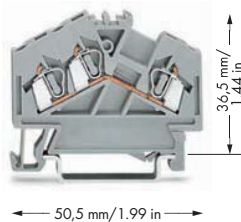


fine-stranded,  
with pin terminal  
(gastight crimped)

# Through/Ground Conductor/Shield 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 ②  
I<sub>N</sub> 24 A

Terminal block width 5 mm / 0.197 in  
8 - 9 mm / 0.33 in ②



CAGE CLAMP®

\* 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)  
Using staggered jumpers 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

Item No.	Pack. Unit	280 Series Accessories	
Appropriate marking systems: WMB/WMB Inline/WFB (see Section 13)			
<b>3-conductor through terminal block</b>		<b>Alternate jumper, insulated,</b>	<b>Test plug,</b>
gray 280-641	100	I <sub>N</sub> = I <sub>N</sub> terminal block	with 500 mm cable,
blue 280-651 ③	100	gray 280-409	2 mm Ø
orange 280-654	100		red 210-136
light gray ④	100		50
<b>3-conductor ground terminal block</b>		<b>Staggered jumper,</b>	<b>Test plug,</b>
green-yellow 280-637	100	insulated,	with 500 mm cable,
green-yellow ④	100	width 5 mm/0.197 in,	2.3 mm Ø
		I <sub>N</sub> 24 A	yellow 210-137
			50
<b>3-conductor shield terminal block</b>		from 1 to 2 780-452	<b>Test plug adapter, 5 mm wide,</b>
white 280-640	100	100 (4x25)	for terminal blocks 1.5 - 4 mm <sup>2</sup> ,
		from 1 to 3 780-453	for 210-137 test plug 2.3 mm Ø
		100 (4x25)	gray 280-404
		from 1 to 4 780-454	100 (4x25)
		50 (2x25)	<b>Test plug adapter, 8.3 mm wide,</b>
		from 1 to 5 780-455	for terminal blocks 1.5 - 10 mm <sup>2</sup> ,
		50 (2x25)	for test plug 4 mm Ø
		from 1 to 6 780-456	gray 209-170
		50 (2x25)	50 (2x25)
		from 1 to 7 780-457	
		50 (2x25)	
		from 1 to 8 780-458	
		50 (2x25)	
<b>280 Series Accessories</b>		<b>Push-in type wire jumper,</b>	<b>Banana plug,</b>
<b>End and intermediate plate, 2.5 mm thick</b>		insulated,	for socket 4 mm Ø,
orange 280-313	100 (4x25)	I <sub>N</sub> 9 A,	color mixed
gray 280-312	100 (4x25)	wire size 0.75 mm <sup>2</sup>	215-111
light gray 280-354	100 (4x25)		50
<b>Separator, oversized, 2.5 mm thick</b>		L = 60 mm 249-125	<b>Test plug adapter, 6 mm wide,</b>
orange 280-318	100 (4x25)	10	with CAGE CLAMP®,
gray 280-348	100 (4x25)	L = 110 mm 249-126	for 0.08 - 2.5 mm <sup>2</sup>
light gray 280-355	100 (4x25)	10	I <sub>N</sub> 24 A 281-407
		L = 250 mm 249-127	100 (4x25)
<b>Ex e/Ex i separator, orange,</b>		<b>Comb-style jumper bar, insulated,</b>	<b>WMB Multi marking system,</b>
3 mm thick		I <sub>N</sub> = I <sub>N</sub> terminal block	10 strips with 10 markers per card,
120 mm 209-191	50 (2x25)	2-way 280-482	stretchable 5 - 5.2 mm
		200 (8x25)	plain 793-5501
		3-way 280-483	5
		200 (8x25)	
<b>Spacer of same shape,</b>		<b>Alternate comb-style jumper bar,</b>	<b>WMB Multi marking system, plain,</b>
5 mm thick		insulated,	10 strips with 10 markers per card,
orange 280-654/056-000	100 (4x25)	I <sub>N</sub> = I <sub>N</sub> terminal block	stretchable 5 - 5.2 mm
		2-way 280-492	yellow 793-5501/000-002
		200 (8x25)	red 793-5501/000-005
			blue 793-5501/000-006
			gray 793-5501/000-007
			orange 793-5501/000-012
			light green 793-5501/000-017
			green 793-5501/000-023
			violet 793-5501/000-024
			5
<b>Insulation stop,</b>		<b>Operating tool, of insulating material</b>	
5 pcs/strip,		2-way 280-432	
0.08 - 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "fst")		1	
white 280-470	200 (8x25)	3-way 280-433	
		1	
<b>Insulation stop,</b>		<b>Protective warning marker,</b>	
5 pcs/strip,		with high-voltage symbol, black,	
0.25 - 0.5 mm <sup>2</sup>		for 5 terminal blocks	
light gray 280-471	200 (8x25)	yellow 280-415	100 (4x25)
<b>Insulation stop,</b>		<b>Test plug module,</b>	<b>Screwless end stop,</b>
5 pcs/strip,		can be snapped together,	for DIN 35 rail,
0.75 - 1 mm <sup>2</sup>		5 mm wide	6 mm wide
dark gray 280-472	200 (8x25)	gray 280-418	gray 249-116
		100 (4x25)	100 (4x25)
<b>Adjacent jumper, insulated,</b>		<b>Spacer module,</b>	<b>Screwless end stop,</b>
I <sub>N</sub> = I <sub>N</sub> terminal block		can be snapped together,	for DIN 35 rail,
gray 280-402	200 (8x25)	5 mm wide	10 mm wide
		gray 280-419	gray 249-117
		100 (4x25)	50 (2x25)

For list of approvals and user guide, see pages 634 to 637.