

# Rail-Mounted Terminal Blocks

## 279 to 285 Series and 880 Series

### Assembly



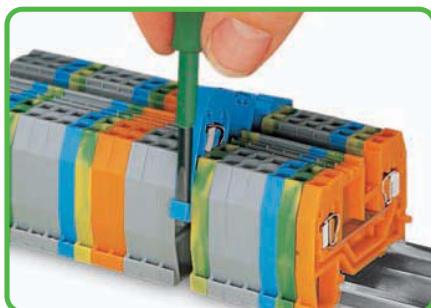
By snapping a ground conductor terminal block onto the carrier rail, a direct electrical connection is automatically made to the rail.

### Assembly



Quick assembly keys prevent reverse mounting.

### Removal



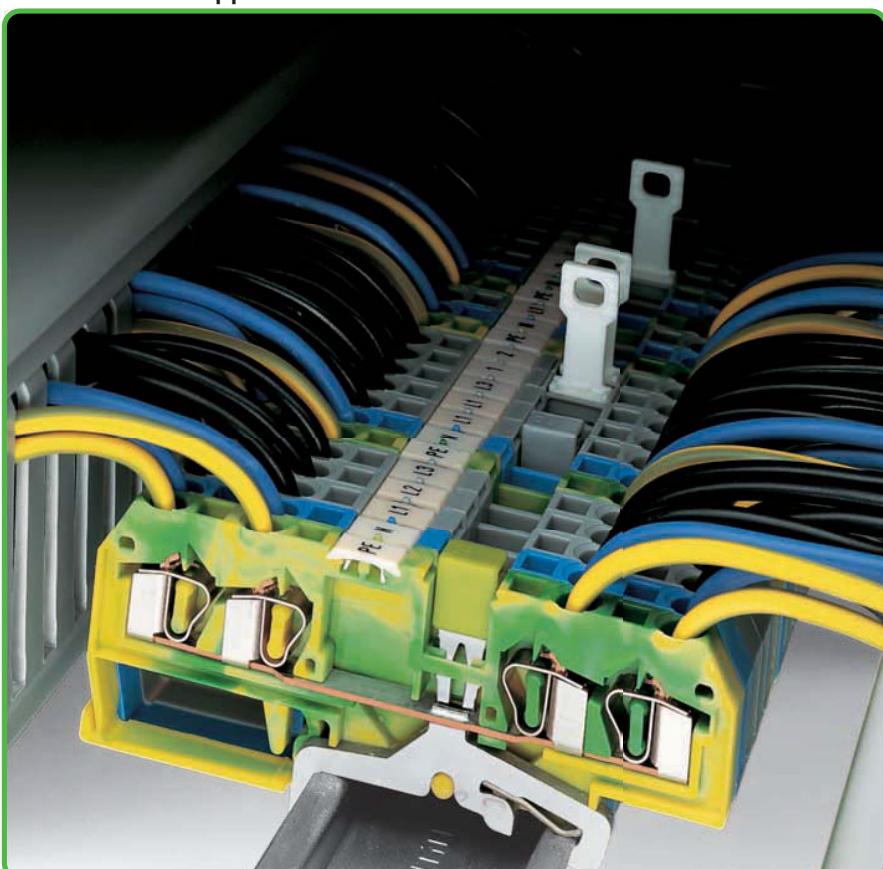
Removing a terminal block from the assembly.

### 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.

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

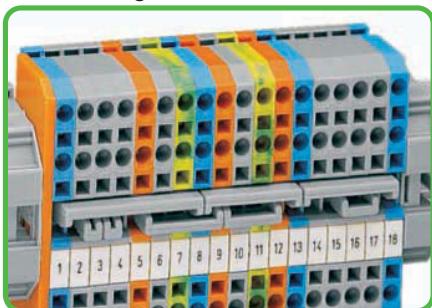


### Commoning with step-down jumpers



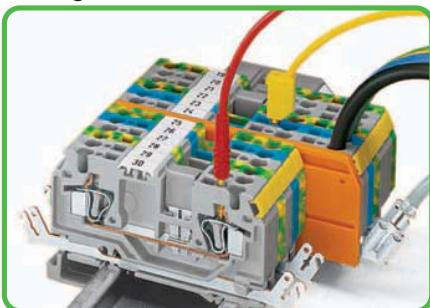
Commoning terminal blocks of different sizes – step down.  
For application notes, see page 178.

### Commoning



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

### 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:<sup>\*</sup>

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

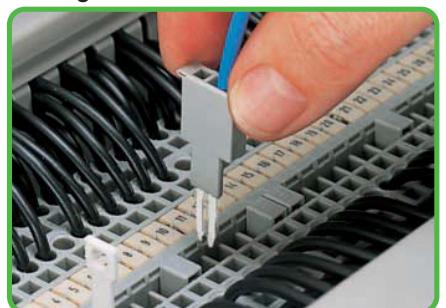
### CAGE CLAMP® connection



Conductor termination

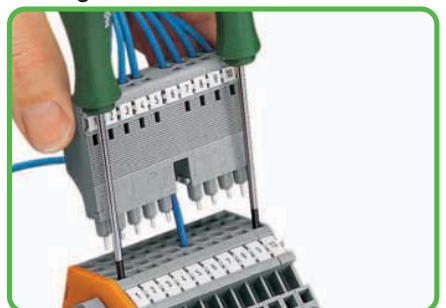
**①** When using ferruled conductors, it is necessary to use a terminal block one size larger than the nominal cross section of the wire.

### Testing

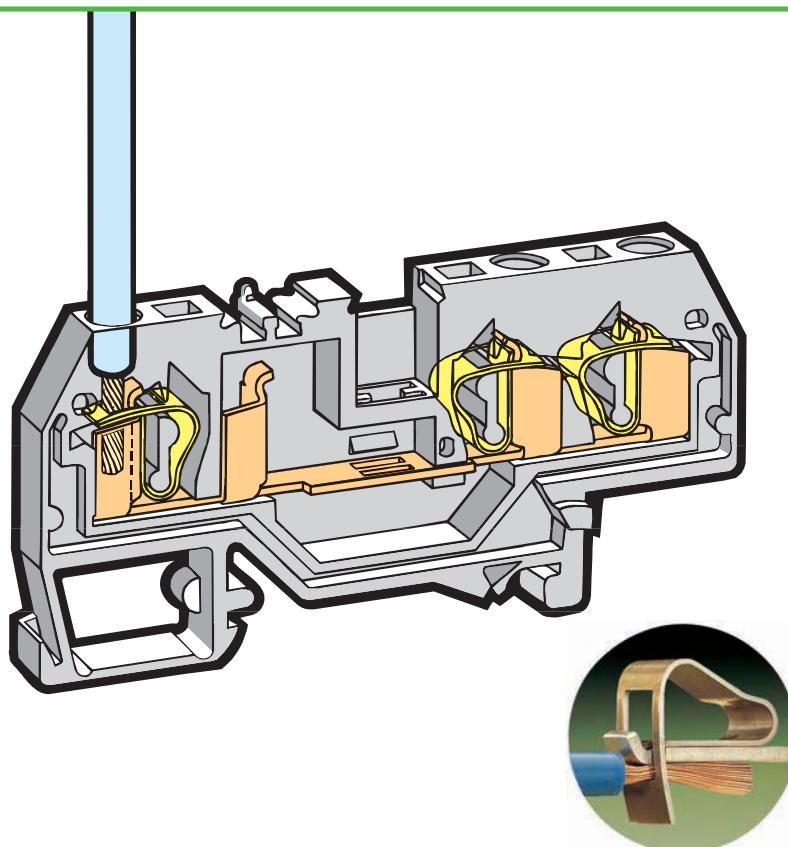


Testing with test plug.  
Test plug fitted with CAGE CLAMP®.

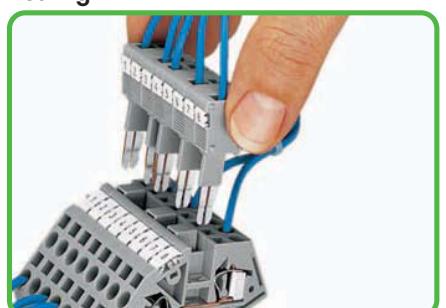
### Testing



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



### Testing



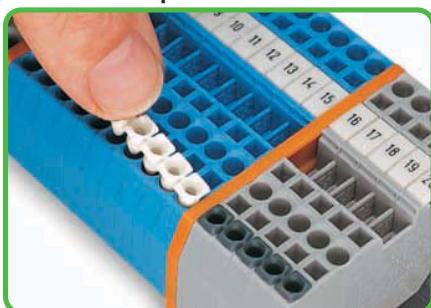
B-type test plug modules fitted with CAGE CLAMP®.  
For application notes, see page 195.

### Marking



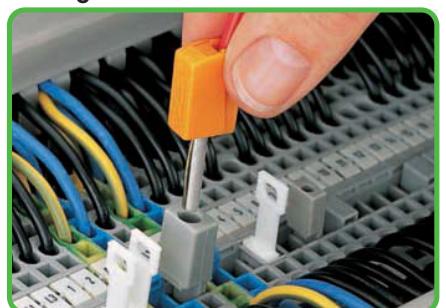
Marking with WMB Multi marking system.  
For additional systems, see Section 13.

### 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 **①**  
(gastight crimped)

fine-stranded,  
with pin terminal  
(gastight crimped)

# Through/Ground Conductor and Ex Terminal Blocks 10 mm<sup>2</sup>

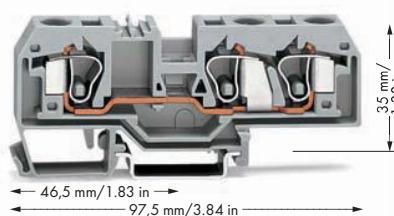
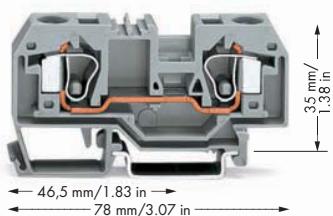
## 284 Series

/CAGE CLAMP®

3

173

0.2 - 10 mm <sup>2</sup> 800 V/8 kV/3 I <sub>N</sub> 57 A	AWG 24 - 8 600 V, 50 A 600 V, 54 A	0.2 - 10 mm <sup>2</sup> 800 V/8 kV/3 I <sub>N</sub> 57 A	AWG 24 - 8 600 V, 50 A 600 V, 54 A
Terminal block width 10 mm / 0.394 in 12 - 13 mm / 0.49 in			Terminal block width 10 mm / 0.394 in 12 - 13 mm / 0.49 in



- 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 e II applications  
0.5 mm<sup>2</sup> - 10 mm<sup>2</sup>/AWG 20 - 8  
550 V, 53 A  
(also see Section 14)
- ④ See application notes for:  
Test plug module, page 197  
Banana plug, page 198  
Step-down jumper, pages 178 - 179

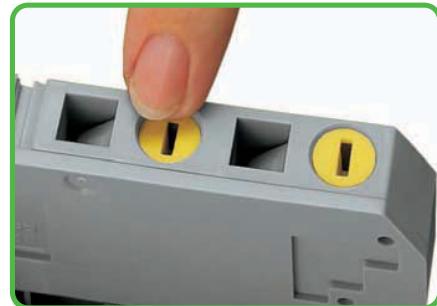
Item No.	Pack. Unit	Item No.	Pack. Unit
<b>2-conductor through terminal block</b>			<b>3-conductor through terminal block</b>
gray 284-901	25	gray 284-681	25
blue 284-904	25	blue 284-684	25
orange 284-902	25	orange 284-682	25
light gray ③ 284-992 ③	25	light gray ③ 284-993 ③	25
<b>2-conductor ground terminal block</b>			<b>3-conductor ground terminal block</b>
green-yellow 284-907	25	green-yellow 284-687	25
green-yellow ③ 284-907/999-950 ③	25	green-yellow ③ 284-687/999-950 ③	25
<b>Item-Specific Accessories</b>			
<b>End and intermediate plate, 2.5 mm thick</b>		<b>End and intermediate plate, 2.5 mm thick</b>	
orange 284-328	100 (4x25)	orange 284-339	100 (4x25)
gray 284-325	100 (4x25)	gray 284-308	100 (4x25)
light gray 284-330	100 (4x25)	light gray 284-341	100 (4x25)
<b>Separator, oversized, 2 mm thick</b>		<b>Separator, oversized, 2 mm thick</b>	
orange 284-329	100 (4x25)	orange 284-340	100 (4x25)
gray 284-326	100 (4x25)	gray 284-309	100 (4x25)
light gray 284-331	100 (4x25)	light gray 284-342	100 (4x25)
<b>Cover plate,</b>		<b>Cover plate,</b>	
1 mm thick		1 mm thick	
gray 284-357	25	gray 284-358	25
orange 284-367	25	orange 284-368	25

### 284 Series Accessories

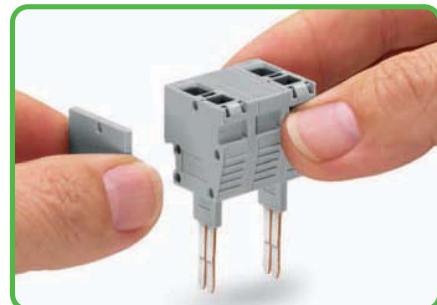
Appropriate marking systems:  
WMB/WFB (see Section 13)

<b>Adjacent jumper, insulated,</b> I <sub>N</sub> 57 A gray 284-402 100 (4x25) yellow-green 284-422 100 (4x25)	<b>Step-down jumper, insulated,</b> I <sub>N</sub> 30 A gray 284-413 50 (2x25)
<b>Alternate jumper, insulated,</b> I <sub>N</sub> 57 A gray 284-409 50 (2x25)	<b>Test plug adapter, 8.3 mm wide,</b> for terminal blocks 1.5 - 10 mm <sup>2</sup> , for test plug 4 mm Ø gray 209-170 50 (2x25)
<b>Protective warning marker,</b> with high-voltage symbol, black, for 5 terminal blocks yellow 284-415 50 (2x25)	<b>Banana plug,</b> ④ for socket 4 mm Ø, color mixed 215-111 50
<b>Finger guard,</b> touchproof cover protects unused conductor entries yellow 284-400 100 (4x25)	<b>B-type test plug module,</b> ④ can be snapped together, 8 mm wide gray 709-310 100 (4x25)
<b>Step-down jumper, insulated,</b> I <sub>N</sub> 15 A gray 284-414 50 (2x25)	<b>B-type spacer plate,</b> can be snapped together, 2 mm wide gray 709-312 100 (4x25)

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



Inserting a finger guard seals unused conductor entries.



Snapping together test plug and spacer modules with spacer plates to assemble a multipole test plug module (max. 10 poles).