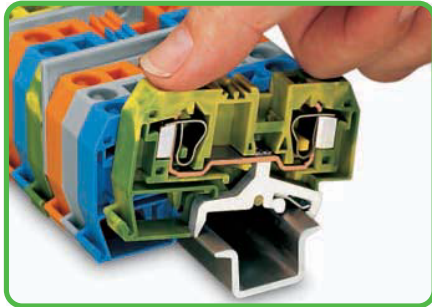


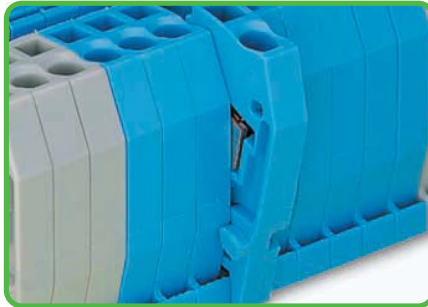
# Rail-Mounted Terminal Blocks 279 to 285 Series and 880 Series

## Assembly



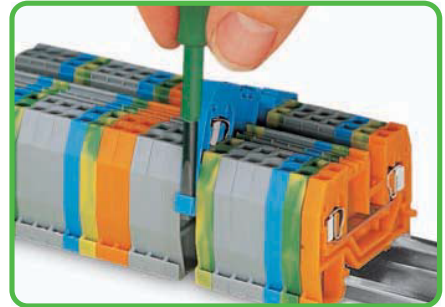
By snapping a ground conductor terminal block onto the carrier rail, a direct electrical connection is automatically made to the rail.

## Assembly



Quick assembly keys prevent reverse mounting.

## Removal



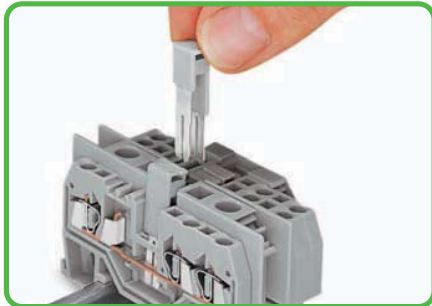
Removing a terminal block from the assembly.

## Commoning



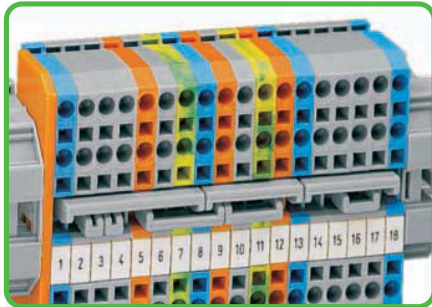
Commoning ground conductor terminal blocks with through terminal blocks is possible in one direction only (via rear side of terminal block) using adjacent jumpers. In addition to the required marking of these blocks, use yellow-green adjacent jumpers.

## Commoning with step-down jumpers



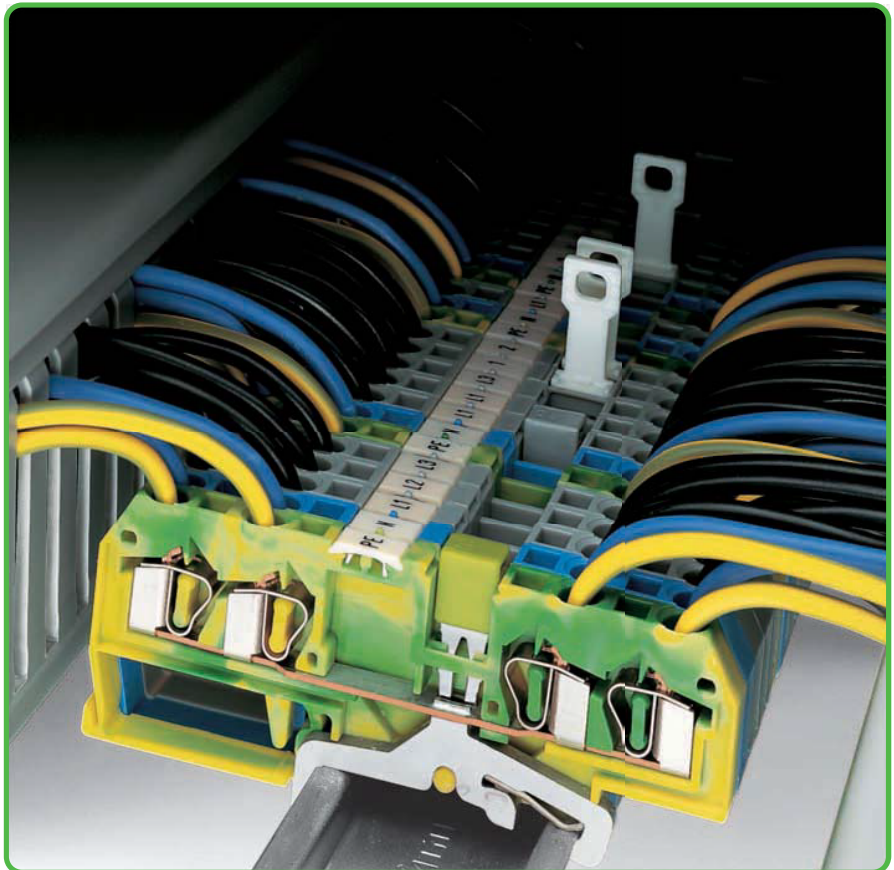
Commoning terminal blocks of different sizes – step down.  
For application notes, see page 178.

## Commoning

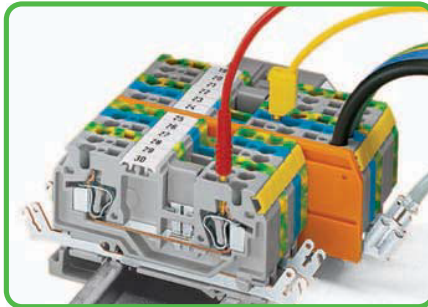


Staggered jumpers for sophisticated circuit requirements. Push jumpers down firmly until fully inserted. For additional notes, see page 201.

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

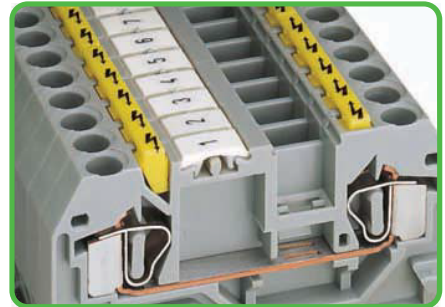


## Testing - 880 Series

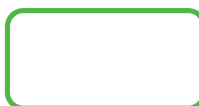


880 Series terminal blocks have an additional test slot for 2 mm Ø or 2.3 mm Ø test plugs.

## Protective warning marker

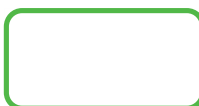


Protective warning markers inserted into the operating slots.

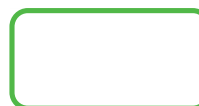


**CAGE CLAMP®**  
clamps the following  
copper conductors:\*

solid



stranded

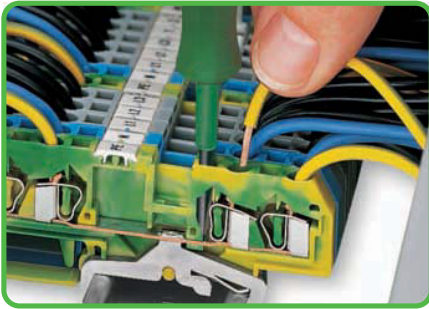


fine-stranded,  
also with tinned  
single strands

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

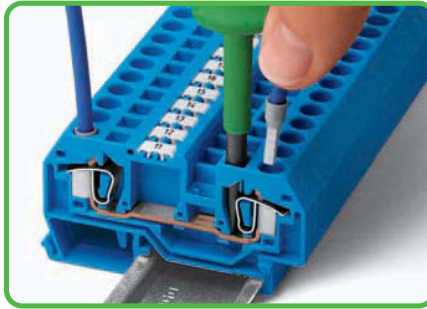
- Description and Handling -

CAGE CLAMP® connection



Conductor termination

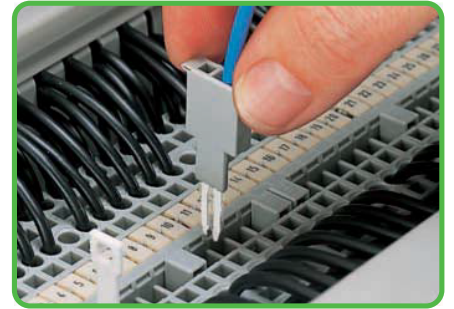
CAGE CLAMP® connection



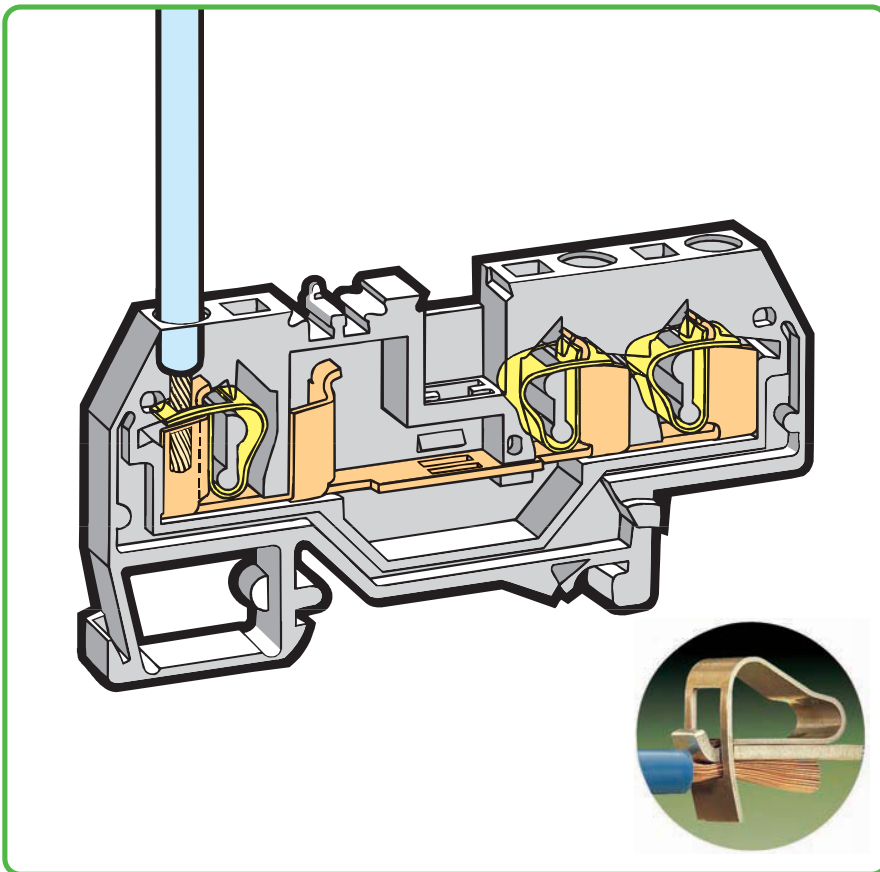
Conductor termination

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

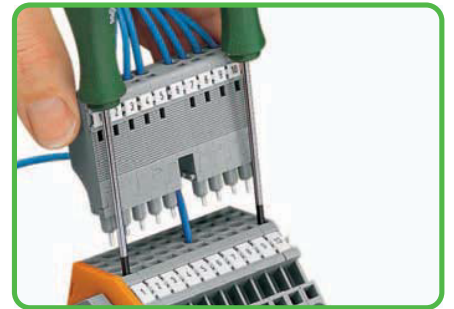
Testing



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

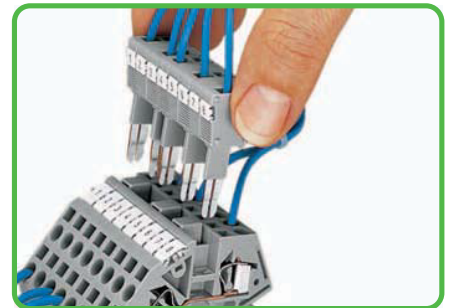


Testing



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

Testing



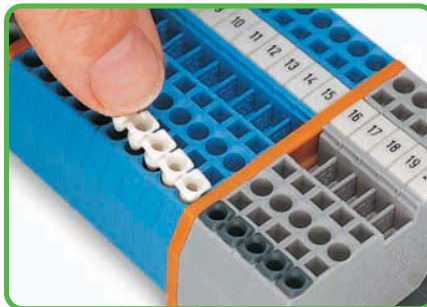
B-type test plug modules fitted with CAGE CLAMP®.  
For application notes, see page 195.

Marking



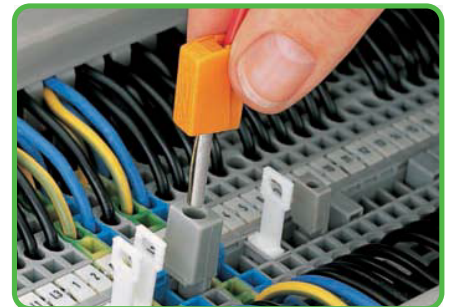
Marking with WMB Multi marking system.  
For additional systems, see Section 13.

Insulation stop



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

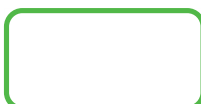
Testing



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



fine-stranded,  
tip-bonded

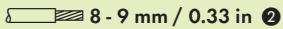
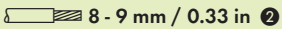
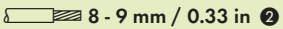


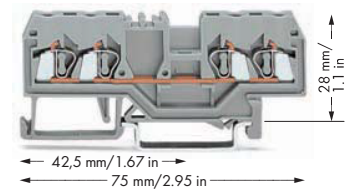
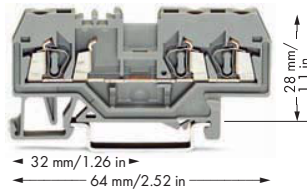
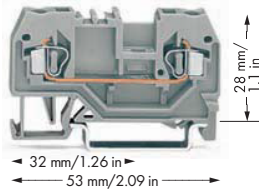
fine-stranded,  
with ferrule ❶  
(gastight crimped)



fine-stranded,  
with pin terminal  
(gastight crimped)

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





























<b>0.08 - 2.5 mm<sup>2</sup></b> 800 V/8 kV/3 ① I <sub>N</sub> 24 A  Terminal block width 5 mm / 0.197 in  8 - 9 mm / 0.33 in ②	<b>AWG 28 - 12 *</b> 600 V, 20 A ⑤ 600 V, 25 A ⑥	<b>0.08 - 2.5 mm<sup>2</sup></b> 800 V/8 kV/3 ① I <sub>N</sub> 24 A  Terminal block width 5 mm / 0.197 in  8 - 9 mm / 0.33 in ②	<b>AWG 28 - 12 *</b> 600 V, 20 A ⑤ 600 V, 15 A ⑥	<b>0.08 - 2.5 mm<sup>2</sup></b> 800 V/8 kV/3 ① I <sub>N</sub> 20 A  Terminal block width 5 mm / 0.197 in  8 - 9 mm / 0.33 in ②	<b>AWG 28 - 12 *</b> 600 V, 20 A ⑤ 600 V, 25 A ⑥
---	--	---	--	---	--



Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
<b>2-conductor through terminal block</b>		<b>3-conductor through terminal block</b>		<b>4-conductor through terminal block</b>	
gray 280-901	100	gray 280-681	100	gray 280-833	100
blue 280-904 ③	100	blue 280-684 ③	100	blue 280-834 ③	100
orange 280-902	100	orange 280-650	100	orange 280-835	100
red 280-903	100	red 280-653	100	red 280-830	100
black 280-905	100	black 280-671	100	black 280-831	100
yellow 280-906	100	yellow 280-672	100	yellow 280-832	100
light gray ⑤ 280-992 ④	100	light gray ⑤ 280-993 ④	100	light gray ⑤ 280-994 ④	100
<b>2-conductor ground terminal block</b>		<b>3-conductor ground terminal block</b>		<b>4-conductor ground terminal block</b>	
green-yellow 280-907	100	green-yellow 280-687	100	green-yellow 280-837	100
green-yellow ⑤ 280-907/999-950 ④	100	green-yellow ⑤ 280-687/999-950 ④	100	green-yellow ⑤ 280-837/999-950 ④	100
<b>Other terminal blocks with the same profile:</b>		<b>Other terminal blocks with the same profile:</b>		<b>Other terminal blocks with the same profile:</b>	
Diode 280-915/281-410	Page 256	Diode 280-673/281-410	Page 256	Diode 280-815/281-410	Page 256
Disconnect 280-912	Page 206	Disconnect 280-683	Page 206	LED 280-809/281-434	Page 256
Carrier 280-916	Page 232	Carrier 280-610	Page 232	Disconnect 280-836	Page 206
				Disc., test & meas. 280-829	Page 206
				Carrier 280-816	Page 232
				Double-potential 280-826	Page 163
<b>Item-Specific Accessories</b>		<b>Item-Specific Accessories</b>		<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>		<b>End and intermediate plate, 2.5 mm thick</b>	
orange 280-309	100 (4x25)	orange 280-326	100 (4x25)	orange 280-315	100 (4x25)
gray 280-308	100 (4x25)	gray 280-324	100 (4x25)	gray 280-314	100 (4x25)
light gray 280-356	100 (4x25)	light gray 280-358	100 (4x25)	light gray 280-352	100 (4x25)
<b>Separator, oversized, 2 mm thick</b>		<b>Separator, oversized, 2 mm thick</b>		<b>Separator, oversized, 2 mm thick</b>	
orange 280-311	100 (4x25)	orange 280-346	100 (4x25)	orange 280-335	100 (4x25)
gray 280-310	100 (4x25)	gray 280-344	100 (4x25)	gray 280-334	100 (4x25)
light gray 280-357	100 (4x25)	light gray 280-359	100 (4x25)	light gray 280-353	100 (4x25)
<b>Ex e/Ex i separator, orange, 3 mm thick</b>		<b>Ex e/Ex i separator, orange, 3 mm thick</b>		<b>Ex e/Ex i separator, orange, 3 mm thick</b>	
90 mm 209-190	50 (2x25)	120 mm 209-191	50 (2x25)	120 mm 209-191	50 (2x25)
120 mm 209-191	50 (2x25)				
<b>Spacer of same shape, 5 mm thick</b>		<b>Spacer of same shape, 5 mm thick</b>		<b>Spacer of same shape, 5 mm thick</b>	
orange 280-902/056-000	100 (4x25)	orange 280-650/056-000	100	orange 280-835/056-000	100 (4x25)
				<b>Cover plate, 1 mm thick</b>	
				gray 284-336	100
				orange 284-346	100

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

- \* 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 for 2-conductor terminal blocks  
22 A for 3-conductor terminal blocks  
20 A for 4-conductor terminal blocks  
(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  
Step-down jumper, pages 178 - 179

280 Series Accessories			Appropriate marking systems: WMB/WMB Inline/WFB (see Section 13)		
<b>Insulation stop,</b>  <ul style="list-style-type: none"> <li>⑤ 5 pcs/strip, 0.08 - 0.2 mm<sup>2</sup> "s" (0.14 mm<sup>2</sup> "f-st") white <b>280-470</b> 200 (8x25)</li> </ul>	<b>Alternate comb-style jumper bar,</b>  <ul style="list-style-type: none"> <li>insulated, I<sub>N</sub> = I<sub>N</sub> terminal block 2-way <b>280-492</b> 200 (8x25)</li> </ul>	<b>Banana plug,</b>  <ul style="list-style-type: none"> <li>⑤ for socket 4 mm Ø, color mixed <b>215-111</b> 50</li> </ul>			
<b>Insulation stop,</b>  <ul style="list-style-type: none"> <li>⑤ 5 pcs/strip, 0.25 - 0.5 mm<sup>2</sup> light gray <b>280-471</b> 200 (8x25)</li> </ul>	<b>Operating tool,</b> of insulating material  <ul style="list-style-type: none"> <li>2-way <b>280-432</b> 1</li> <li>3-way <b>280-433</b> 1</li> </ul>	<b>Test plug adapter,</b> 6 mm wide,  <ul style="list-style-type: none"> <li>with CAGE CLAMP®, for 0.08 - 2.5 mm<sup>2</sup> I<sub>N</sub> 24 A <b>281-407</b> 100 (4x25)</li> </ul>			
<b>Insulation stop,</b>  <ul style="list-style-type: none"> <li>⑤ 5 pcs/strip, 0.75 - 1 mm<sup>2</sup> dark gray <b>280-472</b> 200 (8x25)</li> </ul>	<b>Operating tool,</b> of insulating material  <ul style="list-style-type: none"> <li>10-way <b>280-440</b> 1</li> </ul>	<b>WMB Inline,</b> plain,  <ul style="list-style-type: none"> <li>stretchable 5 - 5.2 mm, 1,500 WMB markers, 5 mm, on roll white <b>2009-115</b> 1</li> </ul>			
<b>Adjacent jumper,</b> insulated,  <ul style="list-style-type: none"> <li>I<sub>N</sub> = I<sub>N</sub> terminal block gray <b>280-402</b> 200 (8x25)</li> <li>yellow-green <b>280-422</b> 200 (8x25)</li> </ul>	<b>Step-down jumper,</b> insulated,  <ul style="list-style-type: none"> <li>⑤ I<sub>N</sub> 15 A gray <b>284-414</b> 50 (2x25)</li> </ul>	<b>WMB Multi marking system,</b>  <ul style="list-style-type: none"> <li>10 strips with 10 markers per card, stretchable 5 - 5.2 mm plain <b>793-5501</b> 5</li> </ul>			
<b>Alternate jumper,</b> insulated,  <ul style="list-style-type: none"> <li>I<sub>N</sub> = I<sub>N</sub> terminal block gray <b>280-409</b> 100 (4x25)</li> </ul>	<b>Cover plate,</b>  <ul style="list-style-type: none"> <li>1 mm thick gray <b>284-334</b> 100</li> <li>orange <b>284-344</b> 100</li> </ul>	<b>WMB Multi marking system,</b> plain,  <ul style="list-style-type: none"> <li>10 strips with 10 markers per card, stretchable 5 - 5.2 mm yellow <b>793-5501/000-002</b></li> <li>red <b>793-5501/000-005</b></li> <li>blue <b>793-5501/000-006</b></li> <li>gray <b>793-5501/000-007</b></li> <li>orange <b>793-5501/000-012</b></li> <li>light green <b>793-5501/000-017</b></li> <li>green <b>793-5501/000-023</b></li> <li>violet <b>793-5501/000-024</b> 5</li> </ul>			
<b>Staggered jumper,</b>  <ul style="list-style-type: none"> <li>⑤ insulated, width 5 mm/0.197 in, I<sub>N</sub> 24 A from 1 to 2 <b>780-452</b> 100 (4x25)</li> <li>from 1 to 3 <b>780-453</b> 100 (4x25)</li> <li>from 1 to 4 <b>780-454</b> 100 (4x25)</li> <li>from 1 to 5 <b>780-455</b> 50 (2x25)</li> <li>from 1 to 6 <b>780-456</b> 50 (2x25)</li> <li>from 1 to 7 <b>780-457</b> 50 (2x25)</li> <li>from 1 to 8 <b>780-458</b> 50 (2x25)</li> </ul>	<b>Protective warning marker,</b>  <ul style="list-style-type: none"> <li>with high-voltage symbol, black, for 5 terminal blocks yellow <b>280-415</b> 100 (4x25)</li> </ul>				
	<b>Test plug module,</b>  <ul style="list-style-type: none"> <li>⑤ can be snapped together, 5 mm wide gray <b>280-418</b> 100 (4x25)</li> </ul>				
	<b>Spacer module,</b>  <ul style="list-style-type: none"> <li>can be snapped together, 5 mm wide gray <b>280-419</b> 100 (4x25)</li> </ul>	<b>Screwless end stop,</b>  <ul style="list-style-type: none"> <li>for DIN 35 rail, 6 mm wide gray <b>249-116</b> 100 (4x25)</li> </ul>			
<b>Push-in type wire jumper,</b>  <ul style="list-style-type: none"> <li>⑤ insulated, I<sub>N</sub> 9 A, wire size 0.75 mm<sup>2</sup> L = 60 mm <b>249-125</b> 10</li> <li>L = 110 mm <b>249-126</b> 10</li> <li>L = 250 mm <b>249-127</b> 10</li> </ul>	<b>Test plug,</b>  <ul style="list-style-type: none"> <li>with 500 mm cable, 2 mm Ø red <b>210-136</b> 50</li> </ul>	<b>Screwless end stop,</b>  <ul style="list-style-type: none"> <li>for DIN 35 rail, 10 mm wide gray <b>249-117</b> 50 (2x25)</li> </ul>			
	<b>Test plug,</b>  <ul style="list-style-type: none"> <li>with 500 mm cable, 2.3 mm Ø yellow <b>210-137</b> 50</li> </ul>				
<b>Comb-style jumper bar,</b> insulated,  <ul style="list-style-type: none"> <li>⑤ I<sub>N</sub> = I<sub>N</sub> terminal block 2-way <b>280-482</b> 200 (8x25)</li> <li>3-way <b>280-483</b> 200 (8x25)</li> </ul>	<b>Test plug adapter,</b> 5 mm wide,  <ul style="list-style-type: none"> <li>for terminal blocks 1.5 - 4 mm<sup>2</sup>, for 210-137 test plug 2.3 mm Ø gray <b>280-404</b> 100 (4x25)</li> </ul>				
<b>Comb-style jumper bar,</b> insulated,  <ul style="list-style-type: none"> <li>I<sub>N</sub> = I<sub>N</sub> terminal block 10-way <b>280-490</b> 50 (2x25)</li> </ul>	<b>Test plug adapter,</b> 8.3 mm wide,  <ul style="list-style-type: none"> <li>for terminal blocks 1.5 - 10 mm<sup>2</sup>, for test plug 4 mm Ø gray <b>209-170</b> 50 (2x25)</li> </ul>				