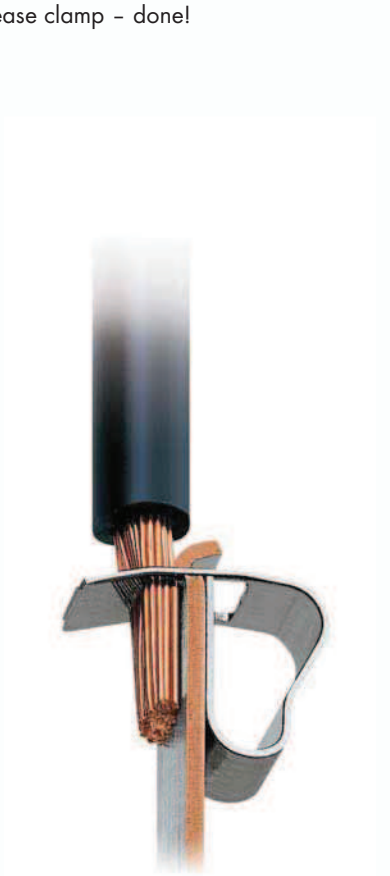
CAGE CLAMP®

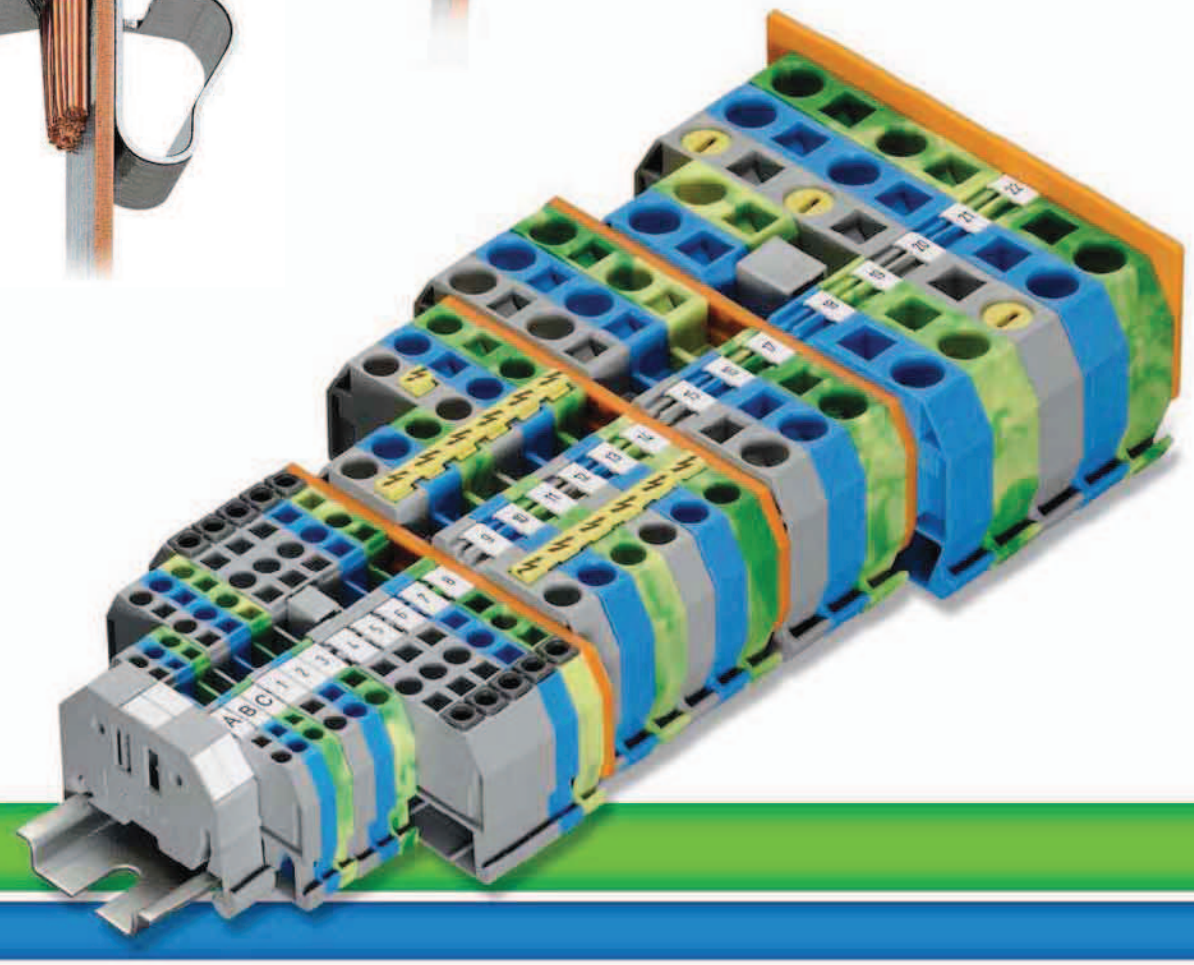
The universal connection for solid, stranded and fine-stranded conductors

Handling:
Open clamping unit,
insert the conductor,
release clamp – done!

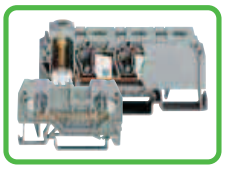








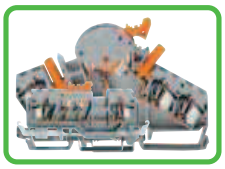
3



Through, Ground Conductor and Ex Terminal Blocks		
0.08 mm² to 35 mm² (AWG 28 - 2)	279 - 285 and 880 Series	162 – 176
Distribution Terminal Blocks		
10 mm² / 35 mm² (AWG 8 / AWG 2)	284 Series	177



Multilevel Rail-Mounted Terminal Blocks		
Double-Deck Terminal Blocks		
1.5/2.5/4 mm² (AWG 16/12)	279/280/281 Series	180 – 188
Triple-Deck Terminal Blocks 2.5 mm²/AWG 12	280 Series	190
Quadruple-Deck Terminal Blocks 4 mm²/AWG 12	281 Series	192



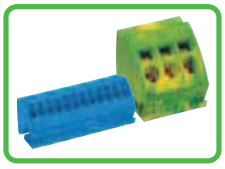
Disconnect Terminal Blocks for Test and Measurement		
– with knife disconnect	280 Series	204 – 205
– with disconnect tab	280/281 Series	206 – 209
– for transformer circuits	282 Series	214 – 219
Ground Conductor Disconnect Terminal Blocks	282 Series	220



Fuse Terminal Blocks		
– with pivoting fuse holder	281 Series	226 – 229
– for mini-automotive blade-style fuses	282 Series	222
Fuse Plugs for Carrier Terminal Blocks	280/281 Series	230 – 233
Technical Information on Fuse Terminal Blocks and Fuse Plugs		234 – 235



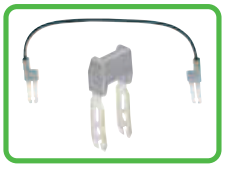
Sensor and Actuator Terminal Blocks	280 Series	238 – 253
Diode and LED Terminal Blocks	279/280/281 Series	254 – 259
Double-Deck Diode and LED Terminal Blocks	280/281 Series	260 – 263
Pluggable Modules - Diodes, LED and Neon Indicators	280 Series	264 – 267



Accessories for Rail-Mounted Terminal Blocks	
– Busbar Terminal Blocks	427



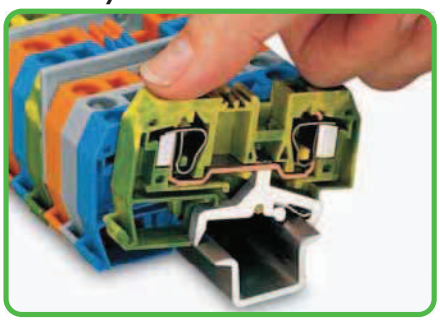
– Banana Plugs	198
– Insulation Stops	199
– Comb-Style Jumper Bars	200



– Push-In Type Wire Jumpers	201
– Staggered Jumpers	201
– Test Plug Modules	194 – 197
– Step-Down Jumpers for Through Terminal Blocks	178 – 179

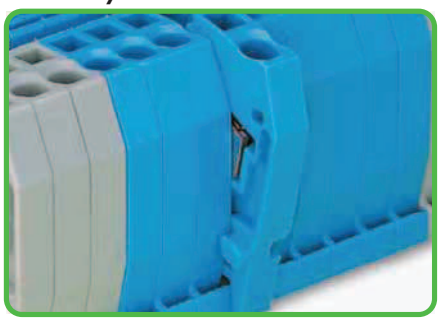
Rail-Mounted Terminal Blocks
279 to 285 Series and 880 Series

Assembly



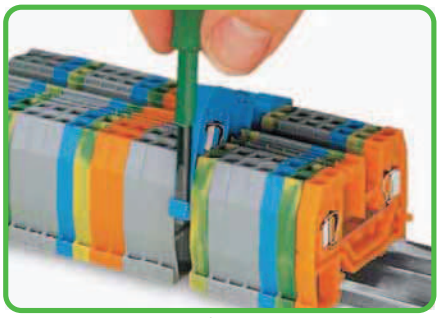
By snapping a ground conductor terminal block onto the carrier rail, a direct electrical connection is automatically made to the rail.

Assembly



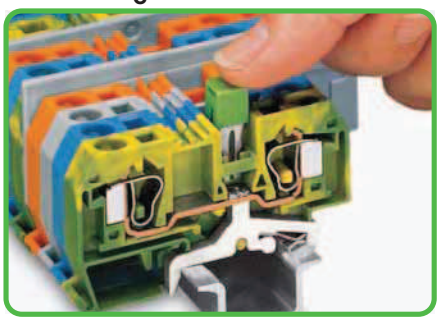
Quick assembly keys prevent reverse mounting.

Removal



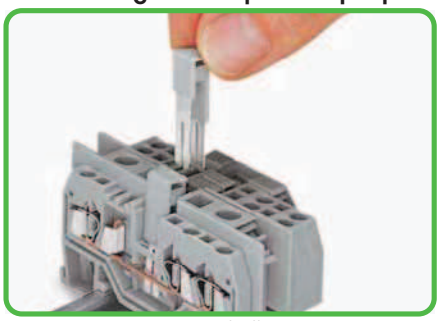
Removing a terminal block from the assembly.

Commoning



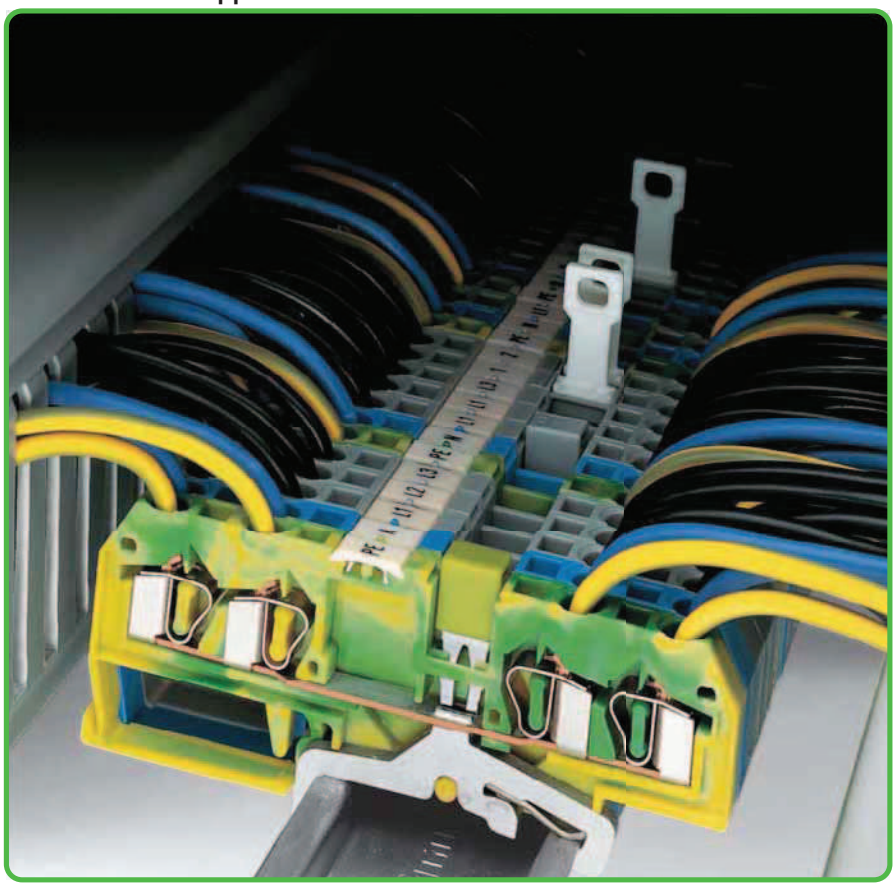
Commoning ground conductor terminal blocks with through terminal blocks is possible in one direction only (via rear side of terminal block) using adjacent jumpers. In addition to the required marking of these blocks, use yellow-green adjacent jumpers.

Commoning with step-down jumpers

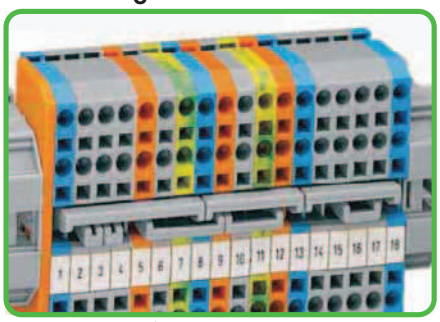


Commoning terminal blocks of different sizes – step down.
For application notes, see page 178.

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

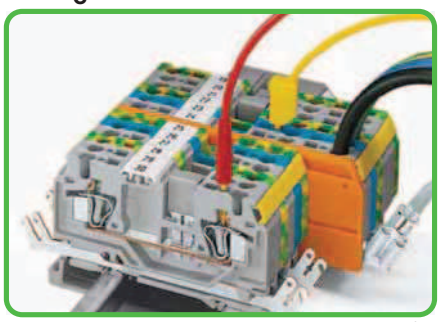


Commoning



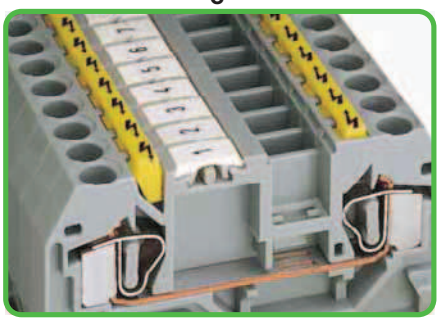
Staggered jumpers for sophisticated circuit requirements. Push jumpers down firmly until fully inserted.
For additional notes, see page 201.

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:*

solid



stranded

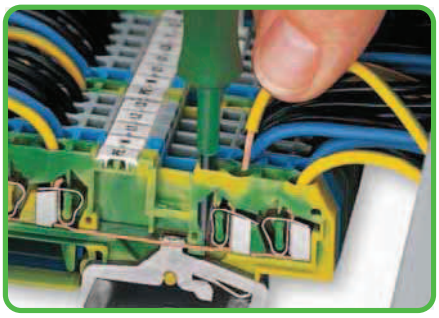


fine-stranded, also with tinned single strands

* For aluminum conductors, see notes in Section 14.

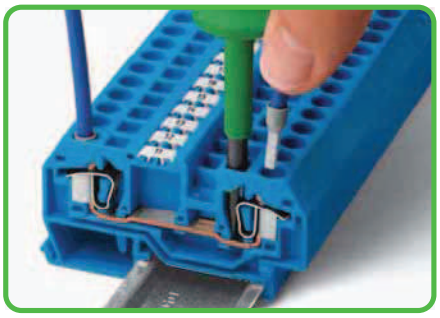
– Description and Handling –

CAGE CLAMP® connection



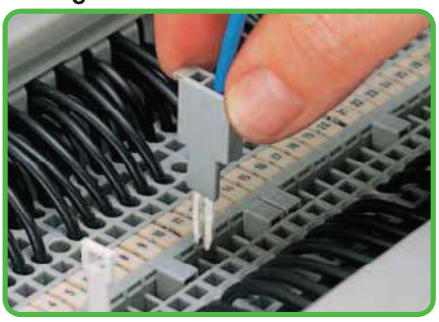
Conductor termination

CAGE CLAMP® connection

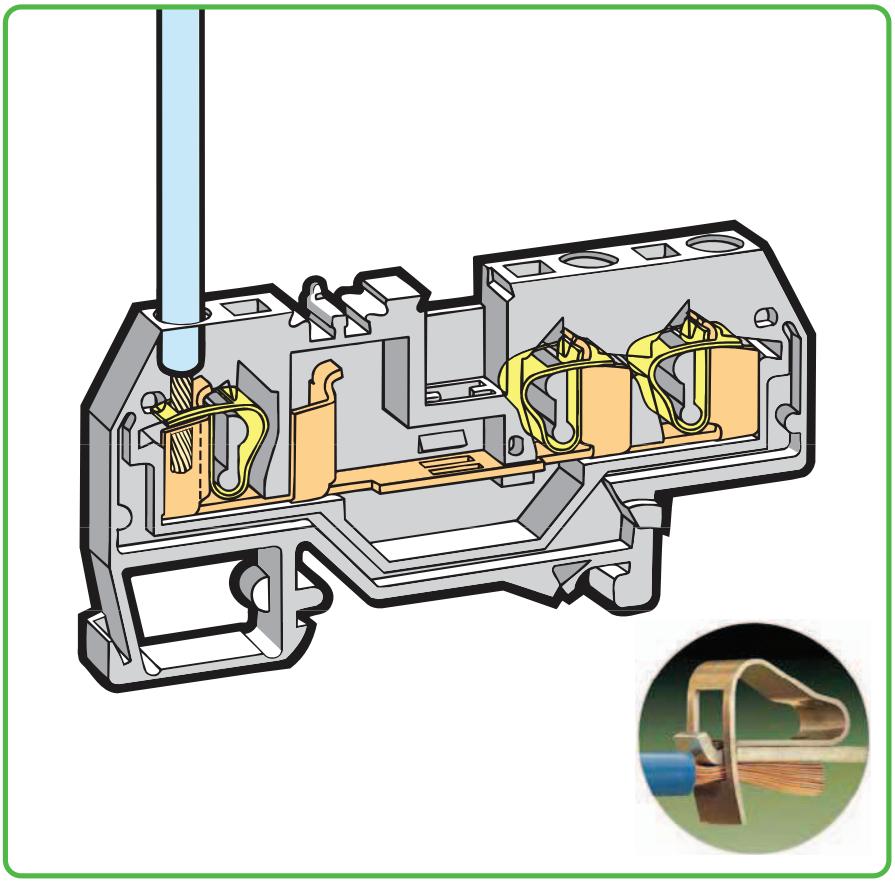


Conductor termination
❶ When using ferruled conductors, it is necessary to use a terminal block one size larger than the nominal cross section of the wire.

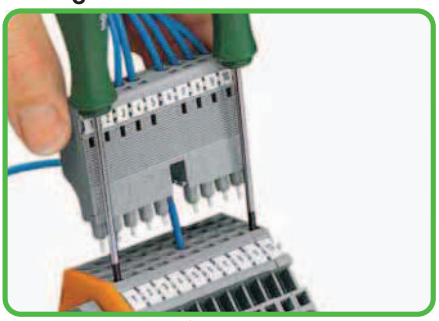
Testing



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



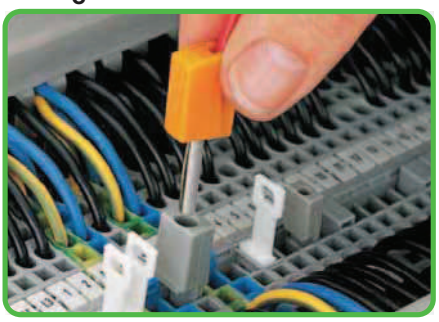
Marking with WMB Multi marking system.
For additional systems, see Section 13.

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)

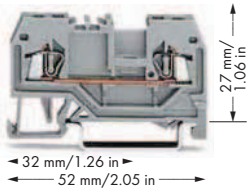


fine-stranded,
with pin terminal
(gastight crimped)

Through/Ground Conductor/Shield and Ex Terminal Blocks 1.5 mm² 279 Series

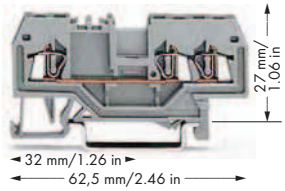
0.08 - 1.5 mm²	AWG 28 - 16
800 V/8 kV/3 ❶	600 V, 10 A
I_N 18 A	600 V, 10 A

Terminal block width 4 mm / 0.157 in
8 - 9 mm / 0.33 in ❷



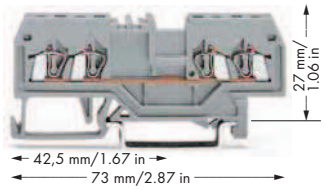
0.08 - 1.5 mm²	AWG 28 - 16
800 V/8 kV/3 ❶	600 V, 10 A
I_N 18 A	600 V, 10 A

Terminal block width 4 mm / 0.157 in
8 - 9 mm / 0.33 in ❷



0.08 - 1.5 mm²	AWG 28 - 16
800 V/8 kV/3 ❶	600 V, 10 A
I_N 18 A	600 V, 10 A

Terminal block width 4 mm / 0.157 in
8 - 9 mm / 0.33 in ❷



	Item No.	Pack. Unit
2-conductor through terminal block		
gray	**279-901**	100
blue	**279-904** ❸	100
orange	**279-902**	100
red	**279-903**	100
black	**279-905**	100
yellow	**279-906**	100
light gray Ex	**279-992** ❹	100
2-conductor ground terminal block		
green-yellow	**279-907**	100
green-yellow Ex	**279-907/999-950** ❹	100
Other terminal blocks with the same profile:		
Diode	**279-915/281-410** Page 254	

	Item No.	Pack. Unit
3-conductor through terminal block		
gray	**279-681**	100
blue	**279-684** ❸	100
orange	**279-682**	100
red	**279-683**	100
black	**279-685**	100
yellow	**279-686**	100
light gray Ex	**279-993** ❹	100
3-conductor ground terminal block		
green-yellow	**279-687**	100
green-yellow Ex	**279-687/999-950** ❹	100
Other terminal blocks with the same profile:		
Diode	**279-673/281-410** Page 254	
LED	**279-674/281-434** Page 254	

	Item No.	Pack. Unit
4-conductor through terminal block		
gray	**279-831**	100
blue	**279-834** ❸	100
orange	**279-832**	100
red	**279-833**	100
black	**279-835**	100
yellow	**279-836**	100
light gray Ex	**279-994** ❹	100
4-conductor ground terminal block		
green-yellow	**279-837**	100
green-yellow Ex	**279-837/999-950** ❹	100
4-conductor shield terminal block		
white	**279-838**	100
Other terminal blocks with the same profile:		
Diode	**279-815/281-410** Page 254	
LED	**279-809/281-434** Page 254	
Double-potential	**279-826** Page 163	

Item-Specific Accessories

End and intermediate plate, 2 mm thick



orange	**279-328**	100 (4x25)
gray	**279-325**	100 (4x25)
light gray	**279-330**	100 (4x25)

Separator, oversized, 2 mm thick



orange	**279-329**	100 (4x25)
gray	**279-326**	100 (4x25)
light gray	**279-331**	100 (4x25)

Ex e/Ex i separator, orange,



3 mm thick		
90 mm	**209-190**	50 (2x25)
120 mm	**209-191**	50 (2x25)

Item-Specific Accessories

End and intermediate plate, 2 mm thick



orange	**279-339**	100 (4x25)
gray	**279-308**	100 (4x25)
light gray	**279-341**	100 (4x25)

Separator, oversized, 2 mm thick



orange	**279-340**	100 (4x25)
gray	**279-309**	100 (4x25)
light gray	**279-342**	100 (4x25)

Ex e/Ex i separator, orange,



3 mm thick		
120 mm	**209-191**	50 (2x25)

Item-Specific Accessories

End and intermediate plate, 2 mm thick



orange	**279-346**	100 (4x25)
gray	**279-344**	100 (4x25)
light gray	**279-348**	100 (4x25)

Separator, oversized, 2 mm thick



orange	**279-347**	100 (4x25)
gray	**279-345**	100 (4x25)
light gray	**279-349**	100 (4x25)

Ex e/Ex i separator, orange,



3 mm thick		
120 mm	**209-191**	50 (2x25)

Cover plate,



1 mm thick		
gray	**284-336**	100
orange	**284-346**	100

279 Series Accessories

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

Insulation stop, ❺

5 pcs/strip,		
0.08 - 0.2 mm² "s" (0.14 mm² "f-st")		
white	**279-470**	200 (8x25)

Insulation stop, ❺



5 pcs/strip,		
0.25 mm²		
dark gray	**279-471**	200 (8x25)

Adjacent jumper, insulated,



I_N 15 A		
gray	**279-402**	200 (8x25)
yellow-green	**279-422**	200 (8x25)

Alternate jumper, insulated,



I_N 15 A		
gray	**279-409**	100 (4x25)

Push-in type wire jumper, ❺



insulated,		
I_N 9 A,		
wire size 0.75 mm²		
L = 60 mm	**249-125**	10
L = 110 mm	**249-126**	10
L = 250 mm	**249-127**	10

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