#### 274

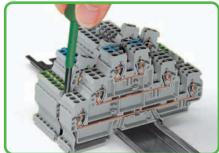
# Compact Rail-Mounted Terminal Blocks for DIN 15 and DIN 35 Rails 870 Series

### Assembly



Snapping a rail-mount terminal block onto DIN 35 carrier

#### Removal



Removing a terminal block from the assembly.

#### **Insulation stop**



Inserting an insulation stop.

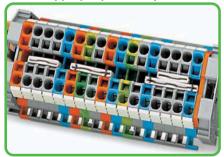
### Push-in type jumper bar system



Push jumper bars down firmly until fully inserted. When using multipole bars, push alternately on right and then left side, until installed.

Push-in type jumper bars 1 - 3 - 5 - 7 or 1 - 4 - 7 upon request.

### Push-in type jumper bar system



Two parallel jumper receptacles are accommodated in one terminal block.

#### Commoning with step-down jumpers



Commoning terminal blocks of different sizes – step



Testing is also possible using a pre-wired module assembly, similar to test plugs.

Testing with phase testing device, also possible with single-pole voltage tester.



CAGE CLAMP® clamps the following copper conductors:\*

solid



**Testing** 

strande



**Testing** 

fine-stranded, also with tinned single strands

<sup>\*</sup> For aluminum conductors, see notes in Section 14.

<sup>1</sup> When using ferrules, the max. conductor cross section accommodated is one size smaller than max. rating of terminal block.

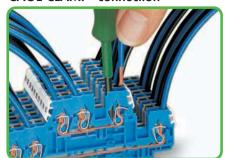
# - Description and Handling -

### CAGE CLAMP® connection



Terminating fine-stranded conductors ranging from 0.08 to 4 mm<sup>2</sup> (AWG 28 – 12).

## CAGE CLAMP® connection



#### Multilevel terminal blocks



CAGE CLAMP®

Double- and triple-deck terminal blocks with internal commoning acting as 4- and 6-conductor terminal blocks.

### Protective warning marker



Protective warning markers (280-405), with black high-voltage symbols.

#### Marking



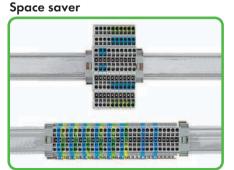
Marking the clamping unit via WMB Multi marking system or miniature WSB Quick marking system.

#### Space saver



Save 50% of rail space when using double-deck terminal

fine-stranded,

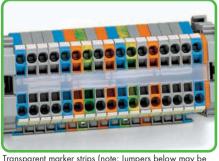


Save 67% of rail space when using triple-deck terminal



fine-stranded, with ferrule 1 (gastight crimped)

# **Marking Strips**



Transparent marker strips (note: Jumpers below may be visible).



fine-stranded, with pin terminal (gastight crimped)



I<sub>N</sub> 24 A

# Double-Deck Terminal Blocks 2.5 mm<sup>2</sup> (4 mm<sup>2</sup> "f-st") 870 Series



0.08 - 2.5 (4"f-st")mm<sup>2</sup> AWG 28 - 12 500 V/6 kV/3 **2** 

300 V, 20 A: 94 us

0.08 - 2.5 (4"f-st")mm<sup>2</sup> AWG 28 - 12 500 V/6 kV/3 2

I<sub>N</sub> 24 A

Terminal block width 5 mm / 0.197 in 6 - 7 mm / 0.26 in 3

Terminal block width 5 mm / 0.197 in

6 - 7 mm / 0.26 in 3







70 mm/2.76 in

- 1 Max. insulation diameter: 4.4 mm
- 2 500 V = rated voltage 6 kV = rated surge voltage 3 = pollution degree (also see Section 14)
- 3 Strip length, see packaging or instructions.
- 4 Suitable for Ex i applications
- Suitable for Ex e II applications 0.2 mm<sup>2</sup> 2.5 (4 "f-st") mm<sup>2</sup>/AWG 24 12 Using push-in type jumper bars 1 to X, the maximum rated voltage is reduced to 275 V and the rated current to 13.5 A (also see Section 14)
- 6 See application notes for: Insulation stop, page 199

|  | Item No.   | Pack.<br>Unit                  |  | Item No.                              | Pack.<br>Unit  | Accessorie        |  | \A/CD  |  |
|--|--|--------------------------------|--|---------------------------------------|--|-------------------|--|--|--|
| Through/through terminal block,  |  |                                | Ground conductor/through terminal block,   |                                       |  | WMB/Miniature WSB |  |  |  |
| gray housing   |  |                                | gray housing   |                                       |  |                   | (see Sect  | ion 13)  |  |
| ◯ L/L  | 870-501  | 50                             | O PE/N   | 870-517                               | 50   | End and inter     | mediate plate  | e, 2 mm thick  |  |
| ○ N/L  | 870-502  | 50                             | O PE/L   | 870-527                               | 50   |                   | orange   | 870-519  | 100 (4×25  |
| O L/N  | 870-503  | 50                             |  |                                       |  |                   | gray   | 870-518  | 100 (4x25  |
| _  |  |                                |  |                                       |  |                   |  |  |  |
| Through/through  | gh terminal block,   |                                |  |                                       |  | Ex e/Ex i sepo    | arator, orange   | θ,   |  |
| blue housing   |  |                                |  |                                       |  |                   | 3 mm thick   |  |  |
| N/N  | 870-504 4  | 50                             |  |                                       |  |                   | 125.5 mm   | 209-192  | 50 (2x25   |
|  |  |                                |  |                                       |  |                   |  |  |  |
| Through/through  | gh terminal block,   |                                | Ground condu   | uctor/through terminal                | block,   | Insulation sto    | p,   |  |  |
| light gray housing   |  |                                | light gray housing   |                                       |  | 6 5 pcs/strip,    |  |  |  |
| ○ L/L &  | 870-961 <b>6</b>   | 50                             | PE/L ®   | 870-967/999-9                         | <b>950 (5</b> ) 50   | 00000             |  | m <sup>2</sup> "s" (0.14 m   | m² "f-st")   |
| O 4  |  |                                | ,  |                                       |  | MIT               | white  | 280-470  | 200 (8x25  |
| Other terminal   | blocks with the same p   | rofile:                        |  |                                       |  | Insulation sto    |  |  |  |
| Other terminal blocks with the same profile: Diode 870-540/281-410 Page 288            |  |                                |  |                                       |  | 6                 | 5 pcs/strip,   |  |  |
| LED  | 870-543/281-43   |                                |  |                                       |  | .0000             | 0.25 - 0.5 m   | m²   |  |
| LLD  | 07 0-340/ 201-40   | Tage 200                       |  |                                       |  | Age .             | light gray   | 280-471  | 200 (8x25  |
|  |  |                                |  |                                       |  | Insulation sto    |  | 200-471  | 200 (0X23  |
|  |  |                                |  |                                       |  | 6                 | 5 pcs/strip,   |  |  |
|  |  |                                |  |                                       |  |                   | 0.75 - 1 mm <sup>2</sup>   | 2  |  |
|  |  |                                |  |                                       |  | -                 |  | 280-472  | 200 (8x25  |
|  |  |                                |  |                                       |  | Push-in type j    | dark gray  |  | 200 (6x23  |
|  | -  |                                | porting and the same of the sa |                                       |  | rusii-iii iype ji |  | suidied,   |  |
|  | d at A   |                                |  |                                       |  | - Comment         |  |  |  |
|  |  |                                |  | SA A                                  | 1  |                   | I <sub>N</sub> 18 A,   |  |  |
| 9  | -:0-5  | )<br>}:                        | 0  |                                       | )<br>}<br>}  | 13.5              | light gray   | 970 402  | 200 1925   |
|  |  | 7 mm/<br>57 in                 | 2  |                                       | 57 in  | ral               | light gray<br>2-way  | 870-402  |  |
|  |  | 40 mm/<br>1.57 in              | Ş  |                                       | 40 mm/   | THE               | light gray<br>2-way<br>3-way   | 870-403  | 200 (8x25  |
|  |  | 40 mm/<br>1.57 in              |  |                                       | 40 mm/<br>1.57 in  | 141               | light gray<br>2-way<br>3-way<br>4-way  | 870-403<br>870-404   | 200 (8x25<br>200 (8x25   |
|  |  | 40 mm/<br>                     |  |                                       | 40 nm/   | Til               | light gray<br>2-way<br>3-way<br>4-way<br>5-way   | 870-403<br>870-404<br>870-405  | 200 (8×25<br>200 (8×25<br>100 (4×25  |
|  |  | 40 mm/                         |  | 70 (07)                               | 40 mm/   | 111               | light gray 2-way 3-way 4-way 5-way 6-way   | 870-403<br>870-404<br>870-405<br>870-406   | 200 (8x25<br>200 (8x25<br>100 (4x25<br>100 (4x25   |
|  | 70 mm/2.76 in  | 40 mm/<br>1.57 in              |  | 70 mm/2.76 in                         | 40 mm/   | III               | light gray 2-way 3-way 4-way 5-way 6-way 7-way   | 870-403<br>870-404<br>870-405<br>870-406<br>870-407  | 200 (8x25<br>200 (8x25<br>100 (4x25<br>100 (4x25<br>100 (4x25  |
|  |  | 40 mm/<br>1.57 in              |  |                                       | 40 mm/ ——————————————————————————————————  | III               | light gray 2-way 3-way 4-way 5-way 6-way 7-way 8-way   | 870-403<br>870-404<br>870-405<br>870-406<br>870-407<br>870-408   | 200 (8x25<br>200 (8x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25   |
|  | Item No.   |                                | -  | Item No.                              | → /mu 07 - / u 25.1 u 25.1 u 25.1 u 26.1 u | III               | light gray 2-way 3-way 4-way 5-way 6-way 7-way 8-way 9-way   | 870-403<br>870-404<br>870-405<br>870-406<br>870-407<br>870-408<br>870-409  | 200 (8x25<br>200 (8x25<br>200 (8x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25  |
|  | Item No. Un  | it                             | -  | Item No.                              | Jnit   | Till .            | light gray 2-way 3-way 4-way 5-way 6-way 7-way 8-way 10-way  | 870-403<br>870-404<br>870-405<br>870-406<br>870-407<br>870-408<br>870-409<br>870-410   | 200 (8x25<br>200 (8x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25   |
|  | Item No. Pac<br>Un<br>rough terminal block, int  | it<br>ternal                   | -  | Item No.                              | Jnit   | Push-in type ju   | light gray 2-way 3-way 4-way 5-way 6-way 7-way 8-way 10-way umper bar, in  | 870-403<br>870-404<br>870-405<br>870-406<br>870-407<br>870-408<br>870-409<br>870-410   | 200 (8x25<br>200 (8x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25  |
| commoning, con   | Item No. Un  | it<br>ternal                   | commoning,   | Item No. L<br>round terminal block, i | Jnit   |                   | light gray 2-way 3-way 4-way 5-way 6-way 7-way 8-way 10-way umper bar, in  | 870-403<br>870-404<br>870-405<br>870-406<br>870-407<br>870-408<br>870-409<br>870-410   | 200 (8x25<br>200 (8x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25  |
| commoning, congray housing   | Item No. Pac<br>Un<br>rough terminal block, int<br>ductor entry position color   | it<br>ternal                   | commoning,<br>green-yellow ho  | Item No. Lyround terminal block, i    | <b>Jnit</b><br>internal  | Push-in type ju   | light gray 2-way 3-way 4-way 5-way 6-way 7-way 8-way 10-way umper bar, in I <sub>N</sub> 18 A, light gray  | 870-403<br>870-404<br>870-405<br>870-406<br>870-407<br>870-408<br>870-409<br>870-410<br>sulated,   | 200 (8x25<br>200 (8x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25  |
| commoning, con   | Item No. Pac<br>Un<br>rough terminal block, int  | it<br>ternal                   | commoning,   | Item No. L<br>round terminal block, i | <b>Jnit</b><br>internal  |                   | light gray 2-way 3-way 4-way 5-way 6-way 7-way 8-way 10-way umper bar, in I <sub>N</sub> 18 A, light gray from 1 to 3  | 870-403<br>870-404<br>870-405<br>870-406<br>870-407<br>870-408<br>870-409<br>870-410<br>sulated,   | 200 (8x25<br>200 (8x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>200 (8x25   |
| commoning, cond<br>gray housing<br>L   | Item No. Pac Un rough terminal block, int ductor entry position color 870-508 50   | it<br>ternal<br>red in violet, | commoning,<br>green-yellow ho  | Item No. Lyround terminal block, i    | <b>Jnit</b><br>internal  |                   | light gray 2-way 3-way 4-way 5-way 6-way 7-way 8-way 10-way umper bar, in I <sub>N</sub> 18 A, light gray from 1 to 3  | 870-403<br>870-404<br>870-405<br>870-406<br>870-407<br>870-408<br>870-409<br>870-410<br>sulated,   | 200 (8×25<br>200 (8×25<br>100 (4×25<br>100 (4×25<br>100 (4×25<br>100 (4×25<br>100 (4×25<br>200 (8×25<br>200 (8×25  |
| commoning, conditions gray housing  L  4-conductor thr                                 | Item No. Pac Un rough terminal block, int ductor entry position color 870-508 50   | ternal red in violet,          | commoning,<br>green-yellow ho  | Item No. Lyround terminal block, i    | <b>Jnit</b><br>internal  |                   | light gray 2-way 3-way 4-way 5-way 6-way 7-way 8-way 9-way 10-way umper bar, in I <sub>N</sub> 18 A, light gray from 1 to 3 from 1 to 4 from 1 to 5  | 870-403<br>870-404<br>870-405<br>870-406<br>870-407<br>870-408<br>870-409<br>870-410<br>sulated,<br>870-433<br>870-434<br>870-435  | 200 (8×25<br>200 (8×25<br>100 (4×25<br>100 (4×25<br>100 (4×25<br>100 (4×25<br>100 (4×25<br>200 (8×25<br>100 (4×25<br>100 (4×25<br>200 (8×25<br>100 (4×25   |
| commoning, cond<br>gray housing<br>L<br>4-conductor thr<br>commoning, cond             | Item No. Pac Un rough terminal block, int ductor entry position color 870-508 50   | ternal red in violet,          | commoning,<br>green-yellow ho  | Item No. Lyround terminal block, i    | <b>Jnit</b><br>internal  |                   | light gray 2-way 3-way 4-way 5-way 6-way 7-way 8-way 9-way 10-way umper bar, in I <sub>N</sub> 18 A, light gray from 1 to 3 from 1 to 4 from 1 to 5 from 1 to 6  | 870-403<br>870-404<br>870-405<br>870-406<br>870-407<br>870-408<br>870-409<br>870-410<br>sulated,<br>870-433<br>870-434<br>870-435<br>870-436   | 200 (8×25<br>100 (4×25<br>100 (4×25<br>100 (4×25<br>100 (4×25<br>100 (4×25<br>100 (4×25<br>100 (4×25<br>200 (8×25<br>100 (4×25<br>100 (4×25<br>100 (4×25   |
| commoning, cond<br>gray housing  L  4-conductor thr commoning, conductor blue housing  | Item No. Pac Un rough terminal block, int ductor entry position color 870-508 50 rough terminal block, int ductor entry position color | ternal red in violet,          | commoning,<br>green-yellow ho  | Item No. Lyround terminal block, i    | <b>Jnit</b><br>internal  |                   | light gray 2-way 3-way 4-way 5-way 6-way 7-way 8-way 9-way 10-way umper bar, in I <sub>N</sub> 18 A, light gray from 1 to 3 from 1 to 4 from 1 to 5  | 870-403<br>870-404<br>870-405<br>870-406<br>870-407<br>870-408<br>870-409<br>870-410<br>sulated,<br>870-433<br>870-434<br>870-435<br>870-436   | 200 (8×25) 100 (4×25) 100 (4×25) 100 (4×25) 100 (4×25) 100 (4×25) 100 (4×25) 200 (8×25) 200 (8×25) 100 (4×25) 100 (4×25)   |
| commoning, cond<br>gray housing<br>L<br>4-conductor thr<br>commoning, cond             | Item No. Pac Un rough terminal block, int ductor entry position color 870-508 50   | ternal red in violet,          | commoning,<br>green-yellow ho  | Item No. Lyround terminal block, i    | <b>Jnit</b><br>internal  |                   | light gray 2-way 3-way 4-way 5-way 6-way 7-way 8-way 9-way 10-way umper bar, in I <sub>N</sub> 18 A, light gray from 1 to 3 from 1 to 4 from 1 to 5 from 1 to 6  | 870-403<br>870-404<br>870-405<br>870-406<br>870-407<br>870-408<br>870-409<br>870-410<br>sulated,<br>870-433<br>870-434<br>870-435<br>870-436   | 200 (8x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>200 (8x25<br>200 (8x25<br>100 (4x25<br>100 (4x25   |
| commoning, cond<br>gray housing  L  4-conductor thr commoning, conductor blue housing  | Item No. Pac Un rough terminal block, int ductor entry position color 870-508 50 rough terminal block, int ductor entry position color | ternal red in violet,          | commoning,<br>green-yellow ho  | Item No. Lyround terminal block, i    | <b>Jnit</b><br>internal  |                   | light gray 2-way 3-way 4-way 5-way 6-way 7-way 8-way 10-way umper bar, in I <sub>N</sub> 18 A, Iight gray from 1 to 3 from 1 to 4 from 1 to 5 from 1 to 6  | 870-403<br>870-404<br>870-405<br>870-406<br>870-407<br>870-408<br>870-409<br>870-410<br>sulated,<br>870-433<br>870-434<br>870-435<br>870-436   | 200 (8×25) 100 (4×25) 100 (4×25) 100 (4×25) 100 (4×25) 100 (4×25) 100 (4×25) 200 (8×25) 100 (4×25) 100 (4×25) 100 (4×25) 100 (4×25)  |
| commoning, cond<br>gray housing  L  4-conductor thr commoning, conductor blue housing  | Item No. Pac Un rough terminal block, int ductor entry position color 870-508 50 rough terminal block, int ductor entry position color | ternal red in violet,          | commoning,<br>green-yellow ho  | Item No. Lyround terminal block, i    | <b>Jnit</b><br>internal  |                   | light gray 2-way 3-way 4-way 5-way 6-way 7-way 8-way 10-way umper bar, in l <sub>N</sub> 18 A, light gray from 1 to 3 from 1 to 4 from 1 to 5 from 1 to 6 from 1 to 7  | 870-403<br>870-404<br>870-405<br>870-406<br>870-407<br>870-408<br>870-409<br>870-410<br>sulated,<br>870-433<br>870-434<br>870-435<br>870-437<br>870-438<br>870-439                       | 200 (8×25) 100 (4×25) 100 (4×25) 100 (4×25) 100 (4×25) 100 (4×25) 100 (4×25) 200 (8×25) 200 (8×25) 100 (4×25) 100 (4×25) 100 (4×25) 100 (4×25) 100 (4×25)  |
| commoning, cond<br>gray housing  L  4-conductor thr commoning, conductor blue housing  | Item No. Pac Un rough terminal block, int ductor entry position color 870-508 50 rough terminal block, int ductor entry position color | ternal red in violet,          | commoning,<br>green-yellow ho  | Item No. Lyround terminal block, i    | <b>Jnit</b><br>internal  |                   | light gray 2-way 3-way 4-way 5-way 6-way 7-way 8-way 10-way 10-way 10-may 10-ma | 870-403<br>870-404<br>870-405<br>870-406<br>870-407<br>870-408<br>870-409<br>870-410<br>sulated,<br>870-433<br>870-434<br>870-435<br>870-437<br>870-438<br>870-439                       | 200 (8x25) 100 (4x25) 100 (4x25) 100 (4x25) 100 (4x25) 100 (4x25) 100 (4x25) 200 (8x25) 200 (8x25) 100 (4x25) 100 (4x25) 100 (4x25) 100 (4x25) 100 (4x25) 100 (4x25)   |
| commoning, cond<br>gray housing  L  4-conductor thr<br>commoning, cond<br>blue housing | Item No. Pac Un rough terminal block, int ductor entry position color 870-508 50 rough terminal block, int ductor entry position color | ternal red in violet,          | commoning,<br>green-yellow ho  | Item No. Lyround terminal block, i    | <b>Jnit</b><br>internal  |                   | light gray 2-way 3-way 4-way 5-way 6-way 7-way 8-way 10-way 10-way 10-may 10 In 16 A 16 from 1 to 5 17 from 1 to 6 18 from 1 to 7 19 from 1 to 9 19 from 1 to 10   | 870-403<br>870-404<br>870-405<br>870-406<br>870-407<br>870-408<br>870-409<br>870-410<br>sulated,<br>870-433<br>870-434<br>870-435<br>870-436<br>870-437<br>870-438<br>870-439<br>870-440 | 200 (8×25) 100 (4×25) 100 (4×25) 100 (4×25) 100 (4×25) 100 (4×25) 100 (4×25) 200 (8×25) 200 (8×25) 100 (4×25) 100 (4×25) 100 (4×25) 100 (4×25) 100 (4×25)  |
| commoning, cond<br>gray housing  L  4-conductor thr commoning, conductor blue housing  | Item No. Pac Un rough terminal block, int ductor entry position color 870-508 50 rough terminal block, int ductor entry position color | ternal red in violet,          | commoning,<br>green-yellow ho  | Item No. Lyround terminal block, i    | <b>Jnit</b><br>internal  | [mmm]             | light gray 2-way 3-way 4-way 5-way 6-way 7-way 8-way 10-way 2-way 10-way | 870-403<br>870-404<br>870-405<br>870-406<br>870-407<br>870-408<br>870-410<br>sulated,<br>870-433<br>870-434<br>870-435<br>870-435<br>870-438<br>870-439<br>870-440                       | 200 (8x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>200 (8x25<br>200 (8x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25 |
| commoning, cond<br>gray housing  L  4-conductor thr commoning, conductor blue housing  | Item No. Pac Un rough terminal block, int ductor entry position color 870-508 50 rough terminal block, int ductor entry position color | ternal red in violet,          | commoning,<br>green-yellow ho  | Item No. Lyround terminal block, i    | <b>Jnit</b><br>internal  | [mmm]             | light gray 2-way 3-way 4-way 5-way 6-way 7-way 8-way 10-way 2-way 10-way | 870-403<br>870-404<br>870-405<br>870-406<br>870-407<br>870-408<br>870-410<br>sulated,<br>870-433<br>870-434<br>870-435<br>870-435<br>870-438<br>870-439<br>870-439                       | 200 (8x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>200 (8x25<br>200 (8x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25<br>100 (4x25 |