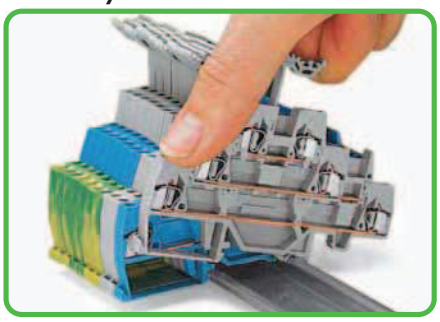
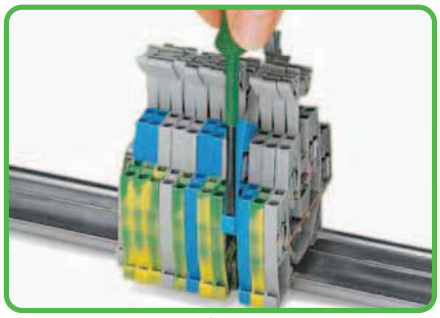
# Double- and Triple-Deck Terminal Blocks, 280 and 281 Series
## – Description and Handling –

### Assembly



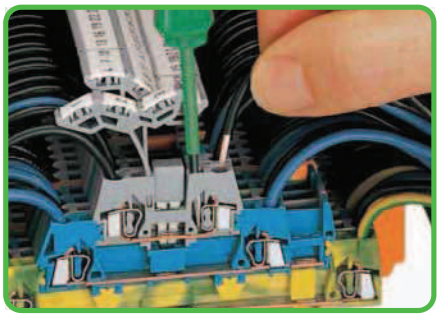
Snapping a terminal block onto the carrier rail.

### Removal



Removing a terminal block from the assembly.

### Conductor termination



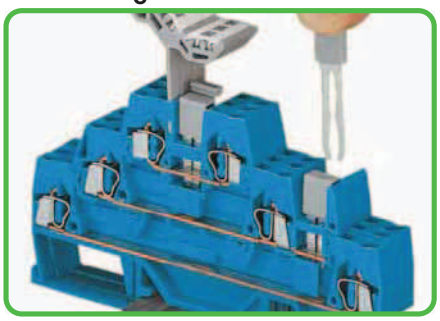
Conductor termination

### Commoning

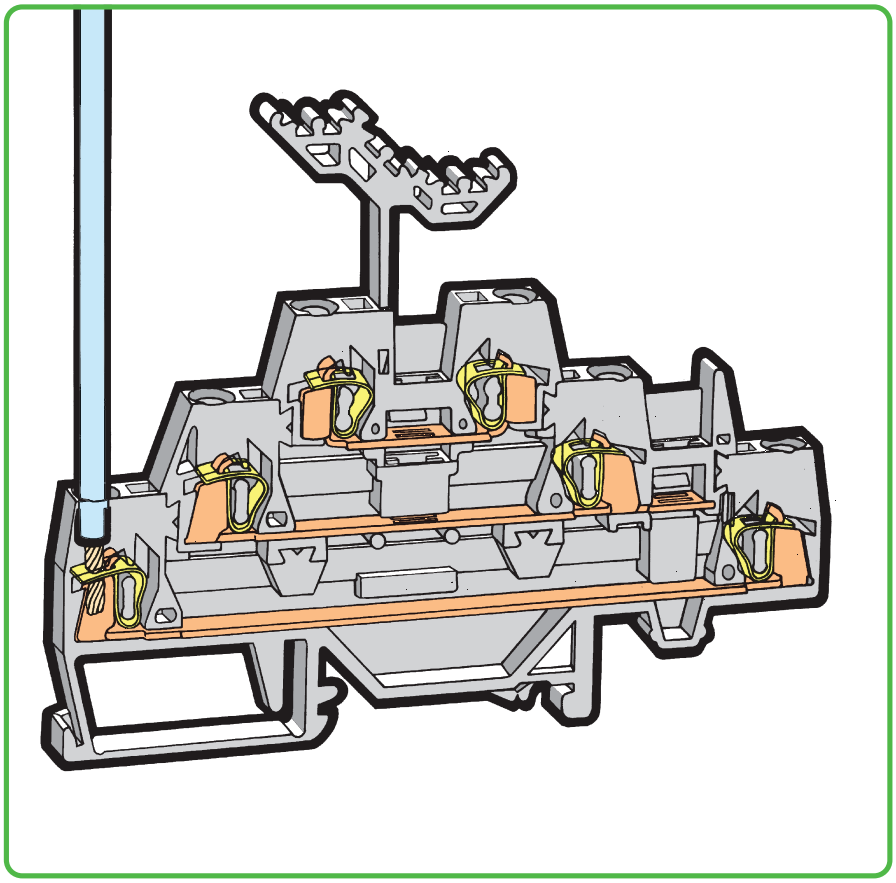


Commoning with 280-402 adjacent jumpers.
Push down the adjacent jumper until fully inserted.

### Commoning



Commoning with vertical and adjacent jumpers.

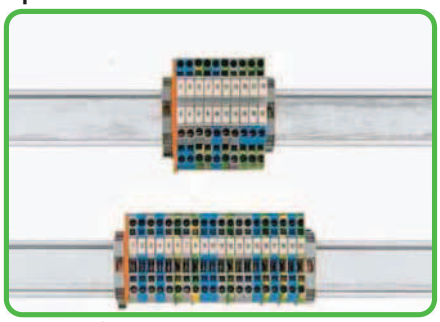


### Marking



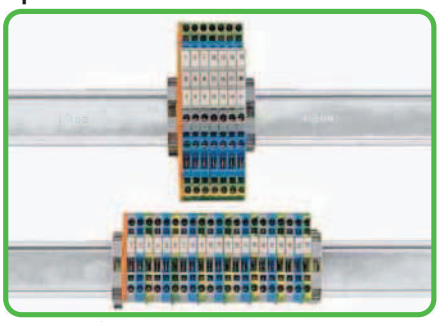
Marking with WMB Multi marking system.
For other systems, see Section 13.

### Space saver



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

### Space saver



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

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

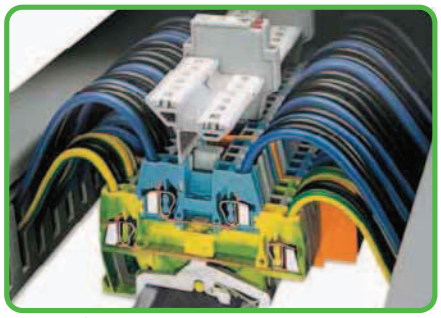
| solid | stranded | fine-stranded, also with tinned single strands | fine-stranded, tip-bonded | fine-stranded, with ferrule ❶ (gastight crimped) | fine-stranded, with pin terminal (gastight crimped) |
|---|---|---|---|---|---|

* For aluminum conductors, see notes in Section 14.

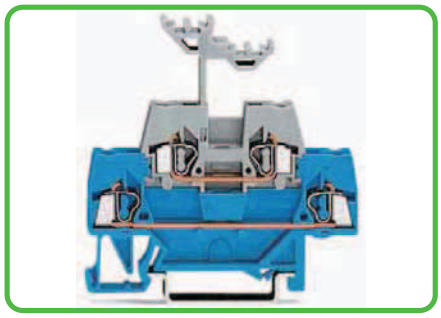
❶ When using ferrules, the max. conductor cross section accommodated is one size smaller than max. rating of terminal block.



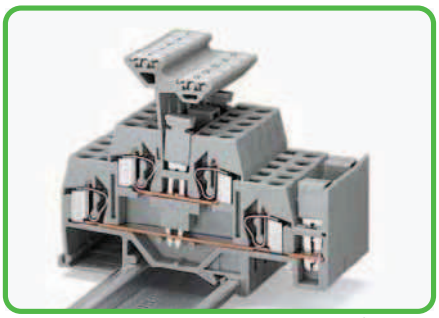
The flexible marker carrier, which is placed above the wiring level, can be pushed aside during wiring or commoning. The marker carrier has two levels for two different markers relating to double-deck terminal blocks.



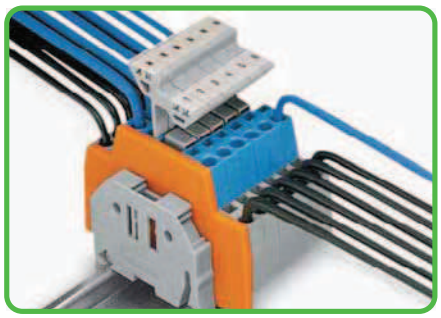
Example of a mixed assembly with double-deck terminal blocks.
The 280 Series double-deck terminal blocks, are available with decks of same or different color according to the function. This is an additional visual aid during wiring or possible service/maintenance.



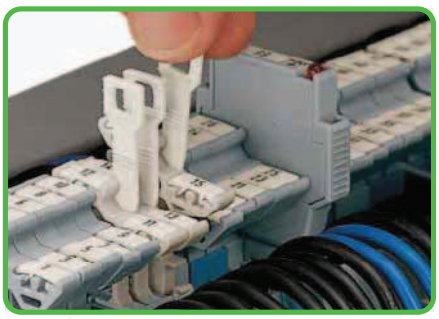
Double-deck terminal blocks accommodate two circuits of different potentials in one 2-level terminal block; different circuits can be differentiated by color coding either level for the 280 Series. The lower deck is wider than the upper, for ease of wiring.



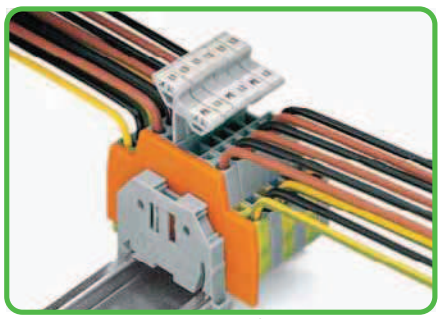
Standard insulated push-in jumpers can be used for commoning. A vertical jumper allows commoning of upper and lower level, providing a 4-conductor feedthrough terminal block in one housing. Two adjacent terminals may be commoned together on the same level using a push-in adjacent jumper.



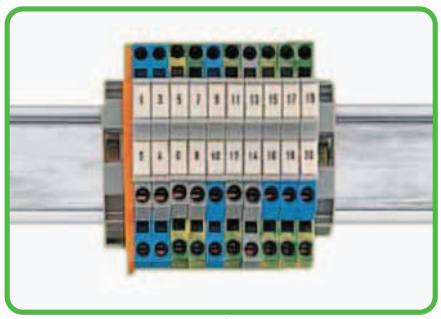
Double-deck terminal blocks used as control wire terminals; e.g., for magnetic valves. Upper deck commoned.



Pulling of disconnecting tab (also see page 207).



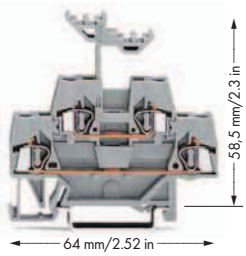
Double-deck terminal blocks used for connecting a three-phase motor.



With a terminal block width of only 5 mm/0.197 in, an effective width of only 2.5 mm/0.098 in for terminal blocks of same or different potential can be realized at a cross sectional area of 0.08 mm² to 2.5 mm² (AWG 28 - 14)!

# Double-Deck Terminal Blocks 2.5 mm²
## 280 Series

| | | |
|---|---|---|
| 0.08 - 2.5 mm² | AWG 28 - 12 * | |
| 500 V/6 kV/3 ❶ | 300 V, 15 A | |
| $I_N$ 20 A | 300 V, 20 A | |
| Terminal block width 5 mm / 0.197 in | | |
| 8 - 9 mm / 0.33 in ❷ | | |




| Item No. | | Pack. Unit |
|---|---|---|
| **Through/through terminal block** | | |
| gray | **280-519** | 50 |
| blue | **280-529** ❸ | 50 |
| **Other terminal blocks with the same profile:** | | |
| Diode | **280-940/281-410** Page 260 | |
| LED | **280-943/281-434** Page 260 | |

### Item-Specific Accessories

**End and intermediate plate,** 2.5 mm thick

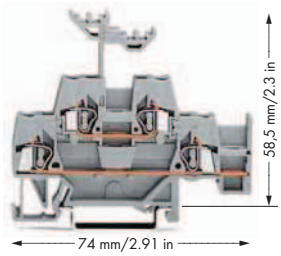
| | | |
|---|---|---|
| orange | **280-341** | 100 (4x25) |
| gray | **280-340** | 100 (4x25) |

**Intermediate plate,**

1.1 mm thick

| | | |
|---|---|---|
| orange | **280-366** | 100 (4x25) |

| | | |
|---|---|---|
| 0.08 - 2.5 mm² | AWG 28 - 12 * | |
| 500 V/6 kV/3 ❶ | 300 V, 15 A | |
| $I_N$ 20 A | 300 V, 20 A | |
| Terminal block width 5 mm / 0.197 in | | |
| 8 - 9 mm / 0.33 in ❷ | | |




| Item No. | | Pack. Unit |
|---|---|---|
| **Through/through terminal block with horizontal jumpering on lower level** | | |
| gray | **280-520** | 50 |
| blue | **280-530** ❸ | 50 |

### Item-Specific Accessories

**End and intermediate plate,** 2.5 mm thick

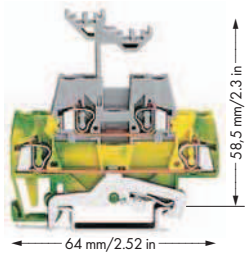
| | | |
|---|---|---|
| orange | **280-343** | 100 (4x25) |
| gray | **280-342** | 100 (4x25) |

**Intermediate plate,**

1.1 mm thick

| | | |
|---|---|---|
| orange | **280-369** | 100 (4x25) |

| | | |
|---|---|---|
| 0.08 - 2.5 mm² | AWG 28 - 12 * | |
| 500 V/6 kV/3 ❶ | | |
| $I_N$ 20 A | 300 V, 20 A | |
| Terminal block width 5 mm / 0.197 in | | |
| 8 - 9 mm / 0.33 in ❷ | | |




| Item No. | | Pack. Unit |
|---|---|---|
| **Ground conductor/through terminal block** | | |
| green-yellow/gray | **280-527** | 50 |
| green-yellow/blue | **280-537** | 50 |

### Item-Specific Accessories

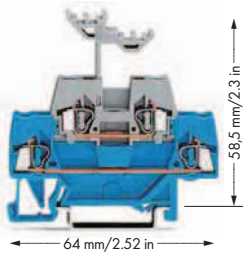
**End and intermediate plate,** 2.5 mm thick

| | | |
|---|---|---|
| orange | **280-341** | 100 (4x25) |
| gray | **280-340** | 100 (4x25) |

**Intermediate plate,**

1.1 mm thick

| | | |
|---|---|---|
| orange | **280-366** | 100 (4x25) |




| Item No. | | Pack. Unit |
|---|---|---|
| **Through/through terminal block** | | |
| blue/gray | **280-523** | 50 |
| gray/blue | **280-533** | 50 |

### Item-Specific Accessories

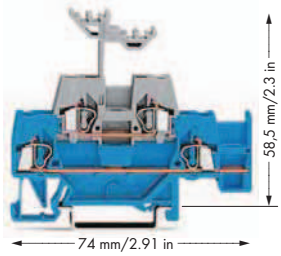
**End and intermediate plate,** 2.5 mm thick

| | | |
|---|---|---|
| orange | **280-341** | 100 (4x25) |
| gray | **280-340** | 100 (4x25) |

**Intermediate plate,**

1.1 mm thick

| | | |
|---|---|---|
| orange | **280-366** | 100 (4x25) |




| Item No. | | Pack. Unit |
|---|---|---|
| **Through/through terminal block with horizontal jumpering on lower level** | | |
| blue/gray | **280-524** | 50 |
| gray/blue | **280-534** | 50 |

### Item-Specific Accessories

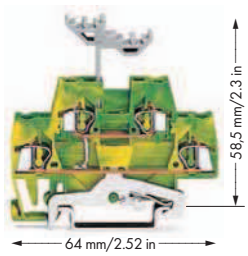
**End and intermediate plate,** 2.5 mm thick

| | | |
|---|---|---|
| orange | **280-343** | 100 (4x25) |
| gray | **280-342** | 100 (4x25) |

**Intermediate plate,**

1.1 mm thick

| | | |
|---|---|---|
| orange | **280-369** | 100 (4x25) |




| Item No. | | Pack. Unit |
|---|---|---|
| **4-conductor ground terminal block,** internal commoning | | |
| green-yellow | **280-517** | 50 |

### Item-Specific Accessories

**End and intermediate plate,** 2.5 mm thick

| | | |
|---|---|---|
| orange | **280-341** | 100 (4x25) |
| gray | **280-340** | 100 (4x25) |

**Intermediate plate,**

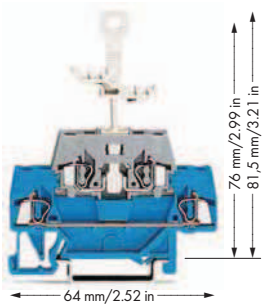
1.1 mm thick

| | | |
|---|---|---|
| orange | **280-366** | 100 (4x25) |

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

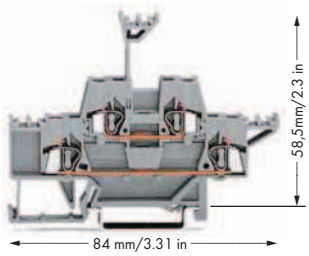
| 0.08 - 2.5 mm² | AWG 28 - 12 * |
|---|---|
| 400 V/6 kV/3 ❶ | 300 V, 15 A |
| $I_N$ 10 A | 300 V, 20 A |

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




| 0.08 - 2.5 mm² | AWG 28 - 12 * |
|---|---|
| 500 V/6 kV/3 ❶ | 300 V, 15 A |
| $I_N$ 20 A | 300 V, 20 A |

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




* AWG 12: THHN, THWN

❶ 500 V/400 V = rated voltage
6 kV = rated surge voltage
3 = pollution degree
(also see Section 14)

❷ Strip length, see packaging or instructions.

❸ Suitable for Ex i applications

❹ See application notes for:
Insulation stop, page 199
Comb-style jumper bar, page 200
Operating tool, page 200

| | Item No. | Pack. Unit |
|---|---|---|
| **Through/disconnect terminal block** | | |
| blue/gray | **280-525** | 50 |
| gray/gray | **280-521** | 50 |

**Item-Specific Accessories**

**End and intermediate plate,** 2.5 mm thick



| | | |
|---|---|---|
| orange | **280-341** | 100 (4x25) |
| gray | **280-340** | 100 (4x25) |

**Intermediate plate,**



1.1 mm thick

| | | |
|---|---|---|
| orange | **280-366** | 100 (4x25) |

| | Item No. | Pack. Unit |
|---|---|---|
| **Through/through terminal block with additional marking options on both sides of the terminal block** | | |
| gray | **280-513** | 50 |

**Item-Specific Accessories**

**End and intermediate plate,** 2.5 mm thick



| | | |
|---|---|---|
| orange | **280-341** | 100 (4x25) |
| gray | **280-340** | 100 (4x25) |

**Intermediate plate,**



1.1 mm thick

| | | |
|---|---|---|
| orange | **280-366** | 100 (4x25) |

## 280 Series Accessories

Appropriate marking systems (see Section 13)

**Insulation stop,** ❹



5 pcs/strip,
0.08 - 0.2 mm² "s" (0.14 mm² "f-st")

| | | |
|---|---|---|
| white | **280-470** | 200 (8x25) |

**Insulation stop,** ❹



5 pcs/strip,
0.25 - 0.5 mm²

| | | |
|---|---|---|
| light gray | **280-471** | 200 (8x25) |

**Insulation stop,** ❹



5 pcs/strip,
0.75 - 1 mm²

| | | |
|---|---|---|
| dark gray | **280-472** | 200 (8x25) |

**Adjacent jumper,** insulated,



$I_N$ = $I_N$ terminal block

| | | |
|---|---|---|
| gray | **280-402** | 200 (8x25) |
| yellow-green | **280-422** | 200 (8x25) |

**Alternate jumper,** insulated,



$I_N$ = $I_N$ terminal block

| | | |
|---|---|---|
| gray | **280-409** | 100 (4x25) |

**Vertical jumper,** insulated,



$I_N$ 24 A

| | | |
|---|---|---|
| gray | **281-421** | 200 (8x25) |

**Comb-style jumper bar,** insulated, ❹



$I_N$ = $I_N$ terminal block

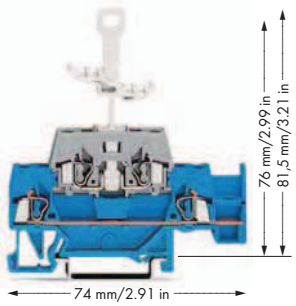
| | | |
|---|---|---|
| 2-way | **280-482** | 200 (8x25) |
| 3-way | **280-483** | 200 (8x25) |

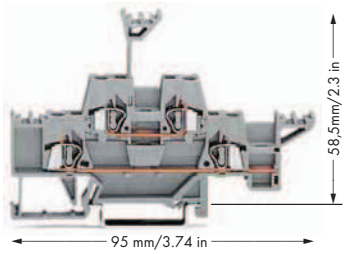
**Comb-style jumper bar,** insulated,



$I_N$ = $I_N$ terminal block

| | | |
|---|---|---|
| 10-way | **280-490** | 50 (2x25) |




| | Item No. | Pack. Unit |
|---|---|---|
| **Through/disconnect terminal block with horizontal jumpering on lower level** | | |
| blue/gray | **280-526** | 50 |
| gray/gray | **280-522** | 50 |

**Item-Specific Accessories**

**End and intermediate plate,** 2.5 mm thick



| | | |
|---|---|---|
| orange | **280-343** | 100 (4x25) |
| gray | **280-342** | 100 (4x25) |

**Intermediate plate,**



1.1 mm thick

| | | |
|---|---|---|
| orange | **280-369** | 100 (4x25) |

| | Item No. | Pack. Unit |
|---|---|---|
| **Through/through terminal block with horizontal jumpering on lower level** | | |
| gray | **280-543** | 50 |

**Item-Specific Accessories**

**End and intermediate plate,** 2.5 mm thick



| | | |
|---|---|---|
| orange | **280-343** | 100 (4x25) |
| gray | **280-342** | 100 (4x25) |

**Intermediate plate,**



1.1 mm thick

| | | |
|---|---|---|
| orange | **280-369** | 100 (4x25) |

**Alternate comb-style jumper bar,**



insulated,
$I_N$ = $I_N$ terminal block

| | | |
|---|---|---|
| 2-way | **280-492** | 200 (8x25) |

**Operating tool,** of insulating material



| | | |
|---|---|---|
| 2-way | **280-432** | 1 |
| 3-way | **280-433** | 1 |

**Operating tool,** of insulating material



| | | |
|---|---|---|
| 10-way | **280-440** | 1 |

**Screwless end stop,**

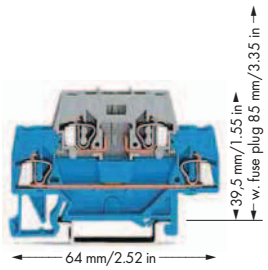


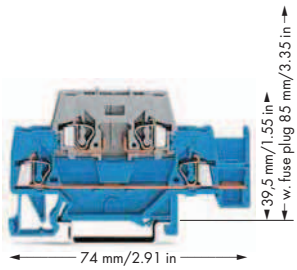
for DIN 35 rail,
6 mm wide

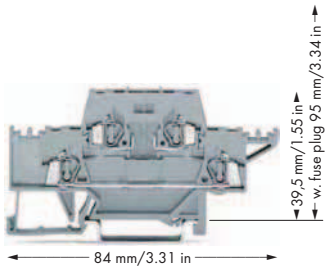
| | | |
|---|---|---|
| gray | **249-116** | 100 (4x25) |

# Carrier Double- and Triple-Deck Terminal Blocks for Fuse Plugs 2.5 mm²
## 280 Series

| | | |
|---|---|---|
| 0.08 - 2.5 mm² / AWG 28 - 12 * | 0.08 - 2.5 mm² / AWG 28 - 12 * | 0.08 - 2.5 mm² / AWG 28 - 12 * |
| 400 V/6 kV/3 ❶ ❷ / 300 V, 15 A | 400 V/6 kV/3 ❶ ❷ / 300 V, 15 A | 400 V/6 kV/3 ❶ ❷ |
| $I_N$ 10 A (20 A) / 300 V, 20 A | $I_N$ 10 A (20 A) / 300 V, 20 A | $I_N$ 10 A (10 A) |
| Terminal block width 5 mm / 0.197 in | Terminal block width 5 mm / 0.197 in | Terminal block width 5 mm / 0.197 in |
| 8 - 9 mm / 0.33 in ❸ | 8 - 9 mm / 0.33 in ❸ | 8 - 9 mm / 0.33 in ❸ |




| | Item No. | Pack. Unit |
|---|---|---|
| **Through/carrier terminal block for pluggable fuse modules** | | |
| blue/gray | **280-531** | 50 |
| gray/gray | **280-514** | 50 |

| | Item No. | Pack. Unit |
|---|---|---|
| **Through/carrier terminal block for pluggable fuse modules with horizontal jumpering on lower level** | | |
| blue/gray | **280-532** | 50 |
| gray/gray | **280-891** | 50 |

| | Item No. | Pack. Unit |
|---|---|---|
| **Through/carrier terminal block for pluggable fuse modules** | | |
| gray/gray | **280-528** | 50 |

### Item-Specific Accessories

**End and intermediate plate,** 2.5 mm thick



| | | |
|---|---|---|
| orange | **280-341** | 100 (4x25) |
| gray | **280-340** | 100 (4x25) |

**Intermediate plate,**



1.1 mm thick

| | | |
|---|---|---|
| orange | **280-366** | 100 (4x25) |

### Item-Specific Accessories

**End and intermediate plate,** 2.5 mm thick



| | | |
|---|---|---|
| orange | **280-343** | 100 (4x25) |
| gray | **280-342** | 100 (4x25) |

**Intermediate plate,**



1.1 mm thick

| | | |
|---|---|---|
| orange | **280-369** | 100 (4x25) |

**Adjacent jumper,** insulated,



$I_N = I_N$ terminal block

| | | |
|---|---|---|
| gray | **280-402** | 200 (8x25) |

**Alternate jumper,** insulated,



$I_N = I_N$ terminal block

| | | |
|---|---|---|
| gray | **280-409** | 100 (4x25) |

### Item-Specific Accessories

**End and intermediate plate,** 2.5 mm thick



| | | |
|---|---|---|
| orange | **280-341** | 100 (4x25) |
| gray | **280-340** | 100 (4x25) |

**Intermediate plate,**



1.1 mm thick

| | | |
|---|---|---|
| orange | **280-366** | 100 (4x25) |

### Accessories

Appropriate marking system for fuse plugs
WSB Quick marking system

**Insulation stop,**

❹ 

5 pcs/strip,
0.08 - 0.2 mm² "s" (0.14 mm² "f-st")

| | | |
|---|---|---|
| white | **280-470** | 200 (8x25) |

**Insulation stop,**

❹ 

5 pcs/strip,
0.25 - 0.5 mm²

| | | |
|---|---|---|
| light gray | **280-471** | 200 (8x25) |

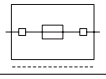
**Insulation stop,**

❹ 

5 pcs/strip,
0.75 - 1 mm²

| | | |
|---|---|---|
| dark gray | **280-472** | 200 (8x25) |

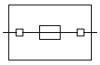
**Fuse plug with pull-tab,**



6 mm wide

| | |
|---|---|
| **281-511** | 50 |

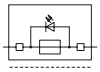
**Fuse plug with pull-tab,**



6 mm wide

| | |
|---|---|
| **281-512** | 50 |

**Fuse plug with pull-tab,** 24 V AC/DC,



with LED indicator, 6 mm wide

| | |
|---|---|
| **281-512/281-501** | 50 |

**Comb-style jumper bar,** insulated,

❹ 

$I_N = I_N$ terminal block

| | | |
|---|---|---|
| 2-way | **280-482** | 200 (8x25) |
| 3-way | **280-483** | 200 (8x25) |

**Alternate comb-style jumper bar,**



insulated,
$I_N = I_N$ terminal block

| | | |
|---|---|---|
| 2-way | **280-492** | 200 (8x25) |

**Operating tool,** of insulating material



| | | |
|---|---|---|
| 2-way | **280-432** | 1 |
| 3-way | **280-433** | 1 |

**WSB Quick marking system,**



for fuse plug 281-5..,
WSB Markers 4 mm wide

| | | |
|---|---|---|
| F1, ..., F10 (10x) | **209-787** | 5 |
| F11, ..., F20 (10x) | **209-700/209-124** | |
| F21, ..., F30 (10x) | **209-700/209-125** | |
| F31, ..., F40 (10x) | **209-700/209-126** | |
| F41, ..., F50 (10x) | **209-700/209-127** | |

5

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