# Sensor and Actuator Terminal Blocks 280 Series

# 236 Assembly



Assembly on the carrier rail. Terminal blocks with ground connection automatically establish a direct contact to the rail.

#### Removal



Removal from the carrier rail. Notice: Remove jumper contacts first.

#### CAGE CLAMP® connection



Conductor termination with straight operating tool (210-720).

## Commoning



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

### Power supply



Sensor terminal blocks. Power supply from control cabinet side.

Power supply



Sensor terminal blocks. Power supply from sensor side.







fine-stranded, also with tinned single strands

Actuator terminal block and thermocouple with shield contact.



# CAGE CLAMP®

# - Description and Handling -

## CAGE CLAMP® connection



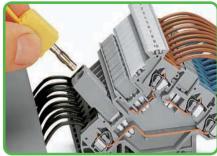
Conductor termination with angled operating tool (210-658).

# Marking



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

## **Testing**



Testing via banana plug and 209-170 test plug adapter.

#### **Testing**



Testing with voltage tester directly on the current bar.

### Fuse plugs



Actuator terminal blocks with 281-511 fuse plugs (requires additional intermediate plates).

Actuator terminal block with thermocouple.



Actuator terminal blocks with component plugs (280-801).



fine-stranded, tip-bonded



fine-stranded, with ferrule **1** (gastight crimped)



Component plugs

fine-stranded, with pin terminal (gastight crimped)



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

# Sensor LED Terminal Blocks 2.5 mm<sup>2</sup> for 3-Conductor Sensors 280 Series



0.08 - 2.5 mm<sup>2</sup> 24 VDC **①** 

AWG 28 - 12 \*

20 A

Circuit I

24 V, 15 A 🗫 300 V, 15 A@

Terminal block width 5 mm / 0.197 in

8 - 9 mm / 0.33 in 2

0.08 - 2.5 mm<sup>2</sup>

24 VDC 1

20 A

AWG 28 - 12 \*

24 V, 15 A 🗫 300 V, 15 A@

Terminal block width 5 mm / 0.197 in

8 - 9 mm / 0.33 in 2









Circuit I Circuit II



| ١ |  |  |  |
|---|--|--|--|
|   |  |  |  |
|   |  |  |  |
|   |  |  |  |
|   |  |  |  |



- 1 Other voltages upon request.
- Strip length, see packaging or instructions.

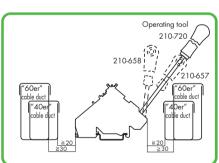


|                      | Item No.                   | Pack.<br>Unit                  | Item No.   | Pack.<br>Unit |  |  |
|----------------------|----------------------------|--------------------------------|--|---------------|--|--|
| Sensor LED termi     | nal block,                 |                                | Sensor LED supply terminal block,                |               |  |  |
| for PNP (positive) s | witching sensors,          | power supply from sensor side, |  |               |  |  |
| additional LED, 24   | VDC, LED power consumpt    | ion: 4.8 mA                    | for PNP (positive) switching sensors,            |               |  |  |
| ·                    |                            |                                | green LED, 24 VDC, LED power consumption: 4.8 mA |               |  |  |
| Circuit I            | 280-560/281-434            | 50                             | Circuit I 280-564/281-48                         | <b>33</b> 10  |  |  |
|                      |                            |                                |  |               |  |  |
| Sensor LED termi     | nal block,                 |                                | Sensor LED supply terminal block,                |               |  |  |
| for NPN (negative)   | switching sensors,         |                                | power supply from sensor side,                   |               |  |  |
| red LED, 24 VDC, I   | LED power consumption: 4.8 | 3 mA                           | for NPN (negative) switching sensors,            |               |  |  |
|                      |                            |                                | green LED, 24 VDC, LED power consumpt            | ion: 4.8 mA   |  |  |
| Circuit II           | 280-561/281-413            | 50                             | Circuit II 280-566/281-49                        | <b>76</b> 10  |  |  |
|                      |                            |                                |  |               |  |  |
|                      |                            |                                |  |               |  |  |
|                      |                            |                                |  |               |  |  |

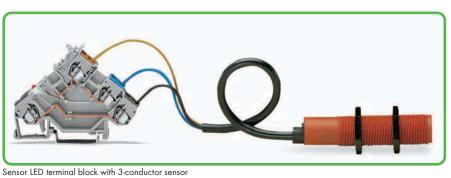
#### 280 Series Accessories

# Appropriate marking system:

| WMB (see Section 13)                    |                  |  |            |                  |                            |         |            |  |  |
|---|------------------|--|------------|------------------|----------------------------|---------|------------|--|--|
| End and intermediate plate, 1 mm thick, |                  |  |            | Insulation stop, |                            |         |            |  |  |
| for triple-deck term                    |                  | ck terminal block  | <b>KS</b>  |                  | 5 pcs/strip,               |         |            |  |  |
|   | orange           | 280-321  | 100 (4x25) | 36.00            | 0.25 - 0.5 mm <sup>2</sup> |         |            |  |  |
|   | gray             | 280-319  | 100 (4x25) |                  | light gray                 | 280-471 | 200 (8×25) |  |  |
| Insulation sta                          | Insulation stop, |  |            | Insulation stop, |                            |         |            |  |  |
|   | 5 pcs/strip      |  |            |                  | 5 pcs/strip,               |         |            |  |  |
| 49999                                   | 0.08 - 0.2       | 0.08 - 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st") |            | agged.           | 0.75 - 1 mm                | 2       |            |  |  |
|   | white            | 280-470  | 200 (8×25) |                  | dark gray                  | 280-472 | 200 (8x25) |  |  |
|   |                  |  |            |                  |                            |         |            |  |  |
|   |                  |  |            |                  |                            |         |            |  |  |



Min. mounting distance - terminal blocks to cable duct



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