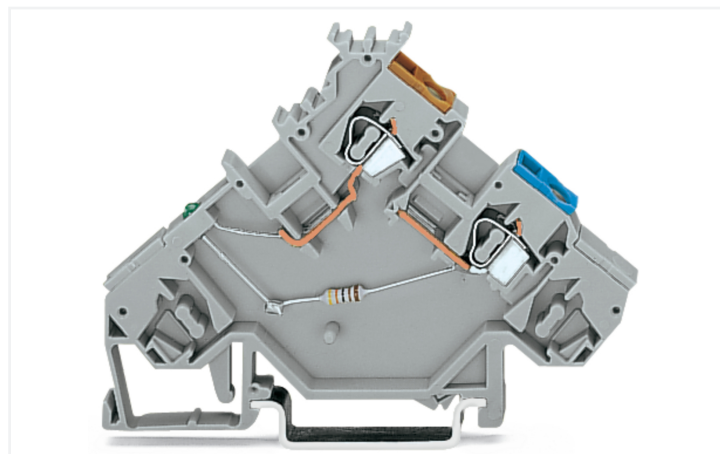
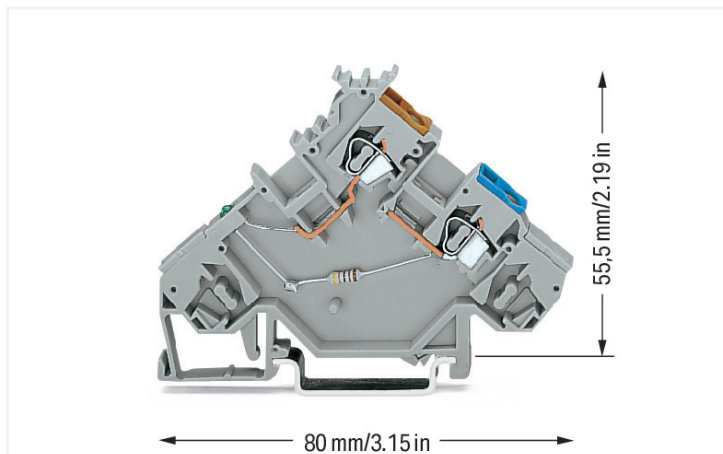


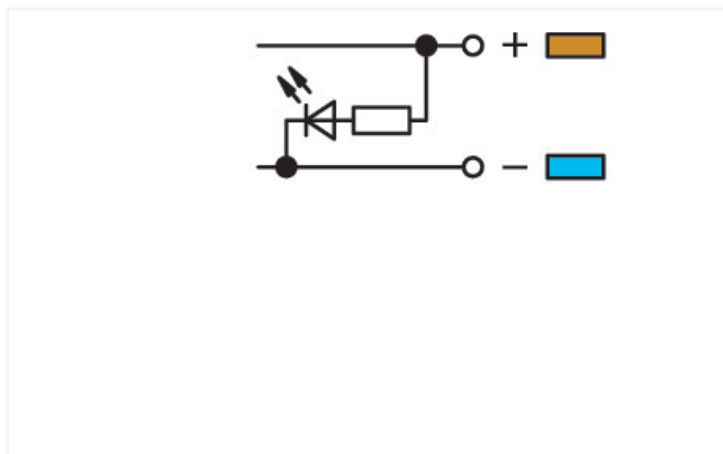
## Data Sheet | Item Number: 280-564/281-483

3-conductor sensor supply terminal block; LED (green); for PNP-(high-side) switching sensors; Power supply from sensor side; with colored conductor entries; 2.5 mm<sup>2</sup>; CAGE CLAMP®; 2,50 mm<sup>2</sup>; gray

<https://www.wago.com/280-564/281-483>



Color: ■ gray



### Sensor terminal block, 280 Series, CAGE CLAMP®

This sensor terminal block (item number 280-564/281-483) is designed for hassle-free electrical installations. Conductors can only be connected to this sensor terminal block if their strip length is between 8 and 9 mm. Featuring conductor terminals along with CAGE CLAMP®, this connector outperforms the competition. Our reliable and maintenance-free CAGE CLAMP® connection makes it easy to connect all types of conductors without having to prepare the conductor. For example, you don't need to crimp ferrules. Depending on the type of conductor, this sensor terminal block is designed for conductor cross sections ranging from 0.08 mm<sup>2</sup> to 2.5 mm<sup>2</sup>.

#### Electrical data

##### Ratings per IEC/EN

Rated current 20 A

##### Ratings per IEC/EN – Notes

Rated current (note) LED power consumption: 4.8 mA

### Power Loss

|  |                  |
|--|------------------|
| Power loss, per pole (potential)                             | 0.532 W          |
| Rated current $I_N$ for power loss specification             | 20 A             |
| Resistance value for specified, current-dependent power loss | 0.00133 $\Omega$ |

### General information

|                     |                    |
|---------------------|--------------------|
| Voltage type 1      | DC                 |
| Nominal voltage     | 24 V               |
| LED (switching) for | PNP                |
| Wiring direction    | Front-entry wiring |

### Connection Data

|                            |   |
|----------------------------|---|
| Clamping units             | 2 |
| Total number of potentials | 2 |
| Number of levels           | 3 |

### Connection 1

|                                 |                    |
|---------------------------------|--------------------|
| Connection technology           | CAGE CLAMP®        |
| Actuation type                  | Operating tool     |
| Connectable conductor materials | Copper<br>Aluminum |

#### Connectable conductor materials (note)

#### Terminating Aluminum Conductors

WAGO Spring-Clamp Terminal Blocks are suitable for solid aluminum conductors up to 4 mm<sup>2</sup>/12 AWG if WAGO "Alu-Plus" Contact Paste [249-130](#) is used for termination.

#### "Alu-Plus" Contact Paste Advantages:

- Automatically destroys the oxide film during clamping.
- Prevents fresh oxidation at the clamping point.
- Prevents electrolytic corrosion between aluminum and copper conductors (in the same terminal block).
- Provides long-term protection against corrosion.

Using terminal blocks with CAGE CLAMP® Spring Pressure Connection Technology, **aluminum conductors must first be cleaned with a blade** and then immediately inserted into the clamping units filled with "Alu-Plus" contact paste.

It is also possible to apply WAGO "Alu-Plus" **additionally** on the whole surface of the aluminum conductor before termination.

Please note that the nominal currents must be adapted to the reduced conductivity of the aluminum conductors:  
2.5 mm<sup>2</sup> = 16 A  
4 mm<sup>2</sup> = 22 A

|                                |  |
|--------------------------------|--|
| Solid conductor                | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG |
| Fine-stranded conductor        | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG |
| Note (conductor cross-section) | 12 AWG: THHN, THWN                           |
| Strip length                   | 8 ... 9 mm / 0.31 ... 0.35 inches            |
| Wiring direction               | Front-entry wiring                           |

### Physical data

|                                   |                        |
|-----------------------------------|------------------------|
| Width                             | 5 mm / 0.197 inches    |
| Height                            | 80 mm / 3.15 inches    |
| Depth from upper-edge of DIN-rail | 55.5 mm / 2.185 inches |

### Mechanical data

|               |                |
|---------------|----------------|
| Design        | angled         |
| Mounting type | DIN-35 rail    |
| Marking level | Center marking |

### Material data

|                                    |  |
|------------------------------------|--|
| Note (material data)               | <a href="#">Information on material specifications can be found here</a> |
| Color                              | gray   |
| Material group                     | I  |
| Insulation material (main housing) | Polyamide (PA66)   |
| Flammability class per UL94        | V0   |
| Fire load                          | 0.183 MJ   |
| Weight                             | 8.3 g  |

### Environmental requirements

|                                  |                 |
|----------------------------------|-----------------|
| Processing temperature           | -35 ... +85 °C  |
| Continuous operating temperature | -60 ... +105 °C |

### Commercial data

|                       |                                  |
|-----------------------|----------------------------------|
| Product Group         | 1 (Rail Mounted Terminal Blocks) |
| PU (SPU)              | 10 pcs                           |
| Packaging type        | Box                              |
| Country of origin     | DE                               |
| GTIN                  | 4045454365707                    |
| Customs tariff number | 85369010000                      |

### Product Classification

|             |                      |
|-------------|----------------------|
| UNSPSC      | 39121410             |
| eCl@ss 10.0 | 27-14-11-28          |
| eCl@ss 9.0  | 27-14-11-28          |
| ETIM 9.0    | EC000900             |
| ETIM 10.0   | EC000900             |
| ECCN        | NO US CLASSIFICATION |

### Environmental Product Compliance

|                        |                         |
|------------------------|-------------------------|
| RoHS Compliance Status | Compliant, No Exemption |
|------------------------|-------------------------|

### Approvals / Certificates

#### General approvals



| Approval                             | Standard | Certificate Name |
|--------------------------------------|----------|------------------|
| CCA<br>DEKRA Certification B.V.      | EN 60947 | 2160584.53       |
| UR<br>Underwriters Laboratories Inc. | UL 1059  | E45172           |

#### Declarations of conformity and manufacturer's declarations

| Approval   | Standard | Certificate Name |
|--|----------|------------------|
| EU-Declaration of Conformity<br>WAGO GmbH & Co. KG | -        | -                |
| UK-Declaration of Conformity<br>WAGO GmbH & Co. KG | -        | -                |

Approvals for marine applications



| Approval  | Standard | Certificate Name |
|---|----------|------------------|
| ABS<br>American Bureau of Ship-<br>ping               | EN 60947 | 24-0152298-PDA   |
| DNV GL<br>Det Norske Veritas, Ger-<br>manischer Lloyd | -        | TAE00001V2       |

Downloads

Environmental Product Compliance

Compliance Search

|  |   |
|--|---|
| Environmental Product<br>Compliance<br>280-564/281-483 | ↓ |
|--|---|

Documentation

Bid Text

|                 |            |                 |   |
|-----------------|------------|-----------------|---|
| 280-564/281-483 | 19.02.2019 | xml<br>3.44 KB  | ↓ |
| 280-564/281-483 | 14.03.2017 | doc<br>25.00 KB | ↓ |

CAD/CAE-Data

CAE data

|                                      |   |
|--------------------------------------|---|
| EPLAN Data Portal<br>280-564/281-483 | ↓ |
| WSCAD Universe<br>280-564/281-483    | ↓ |

1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate



**Item No.: 280-319**  
End and intermediate plate; 1 mm thick;  
for triple-deck terminal blocks; gray



**Item No.: 280-321**  
End and intermediate plate; 1 mm thick;  
for triple-deck terminal blocks; orange

## 1.2 Optional Accessories

### 1.2.1 DIN-rail

#### 1.2.1.1 Mounting accessories



**Item No.: 210-196**

Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored



**Item No.: 210-198**

Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored



**Item No.: 210-508**

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-colored



**Item No.: 210-197**

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored



**Item No.: 210-506**

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored



**Item No.: 210-114**

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored



**Item No.: 210-118**

Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored



**Item No.: 210-115**

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm; silver-colored



**Item No.: 210-112**

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm; silver-colored



**Item No.: 210-504**

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; silver-colored



**Item No.: 210-113**

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored



**Item No.: 210-505**

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715; silver-colored

### 1.2.2 Ferrule

#### 1.2.2.1 Ferrule



**Item No.: 216-301**

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow



**Item No.: 216-302**

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise



**Item No.: 216-201**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; electrolytic copper; acc. to DIN 46228, Part 4/09.90; white



**Item No.: 216-101**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; un-insulated; electro-tin plated; silver-colored



**Item No.: 216-202**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray



**Item No.: 216-102**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; un-insulated; electro-tin plated; silver-colored



**Item No.: 216-203**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red



**Item No.: 216-103**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; un-insulated; electro-tin plated



**Item No.: 216-204**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; black



**Item No.: 216-104**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; un-insulated; electro-tin plated; silver-colored

### 1.2.3 Installation

#### 1.2.3.1 Cover



**Item No.: 709-154**

Cover; Type 2; suitable for cover carrier, type 2; 1 m long; transparent

1.2.3.2 Cover carrier



**Item No.: 709-168**  
 Cover carrier; Type 2; incl. fixing/retaining screws and knurled nut; suitable for 283 to 285 Series rail-mounted terminal blocks; suitable for 279 to 281 Series double- and triple-deck terminal blocks; suitable for 780 to 785, 775, 776 and 777 Series TOP-JOB® rail-mounted terminal blocks; suitable for 280 Series sensor and actuator terminal blocks; suitable for 282 Series disconnect/test terminal blocks for transformer circuits; gray

1.2.3.3 Mounting accessories



**Item No.: 249-116**  
 Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

1.2.4 Insulation stop

1.2.4.1 Insulation stop



**Item No.: 280-470**  
 Insulation stop; 0.08 - 0.2 mm<sup>2</sup> "s" (0.14 mm<sup>2</sup> "f-st"); 5 pieces/strip; white



**Item No.: 280-471**  
 Insulation stop; 0.25 - 0.5 mm<sup>2</sup>; 5 pieces/strip; light gray



**Item No.: 280-472**  
 Insulation stop; 0.75 - 1 mm<sup>2</sup>; 5 pieces/strip; black

1.2.5 Jumper

1.2.5.1 Jumper



**Item No.: 280-490**  
 Jumper; 10-way; insulated; gray



**Item No.: 280-482**  
 Jumper; 2-way; insulated; gray



**Item No.: 280-492**  
 Jumper; 2-way; insulated; gray



**Item No.: 280-483**  
 Jumper; 3-way; insulated; gray



**Item No.: 280-484**  
 Jumper; 4-way; insulated; gray



**Item No.: 280-485**  
 Jumper; 5-way; insulated; gray



**Item No.: 280-402**  
 Jumper; insulated; gray



**Item No.: 780-452**  
 Staggered jumper; from 1 to 2; insulated; gray



**Item No.: 780-453**  
 Staggered jumper; from 1 to 3; insulated; gray



**Item No.: 780-454**  
 Staggered jumper; from 1 to 4; insulated; gray



**Item No.: 780-455**  
 Staggered jumper; from 1 to 5; insulated; gray



**Item No.: 780-456**  
 Staggered jumper; from 1 to 6; insulated; gray



**Item No.: 780-457**  
 Staggered jumper; from 1 to 7; insulated; gray



**Item No.: 780-458**  
 Staggered jumper; from 1 to 8; insulated; gray



**Item No.: 709-110**  
 Wire commoning chain; 2.5 mm<sup>2</sup>; insulated; black



**Item No.: 709-111**  
 Wire commoning chain; 2.5 mm<sup>2</sup>; insulated; black



**Item No.: 709-112**  
 Wire commoning chain; 2.5 mm<sup>2</sup>; insulated; black



**Item No.: 210-103**  
 Wire commoning chain; insulated; black



**Item No.: 210-123**  
 Wire commoning chain; insulated; blue

1.2.6 Marking

1.2.6.1 Marker



**Item No.: 793-5501/000-006**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; blue



**Item No.: 793-5501/000-007**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; gray



**Item No.: 793-5501/000-023**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; green



**Item No.: 793-5501/000-017**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; light green



**Item No.: 793-5501/000-012**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; orange



**Item No.: 793-5501/000-005**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; red



**Item No.: 793-5501/000-024**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; violet



**Item No.: 793-5501**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white



**Item No.: 793-5501/000-002**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; yellow



**Item No.: 793-501/000-006**  
WMB marking card; as card; not stretchable; plain; snap-on type; blue



**Item No.: 793-501/000-007**  
WMB marking card; as card; not stretchable; plain; snap-on type; gray



**Item No.: 793-501/000-023**  
WMB marking card; as card; not stretchable; plain; snap-on type; green



**Item No.: 793-501/000-017**  
WMB marking card; as card; not stretchable; plain; snap-on type; light green



**Item No.: 793-501/000-012**  
WMB marking card; as card; not stretchable; plain; snap-on type; orange



**Item No.: 793-501/000-005**  
WMB marking card; as card; not stretchable; plain; snap-on type; red



**Item No.: 793-501/000-024**  
WMB marking card; as card; not stretchable; plain; snap-on type; violet



**Item No.: 793-501**  
WMB marking card; as card; not stretchable; plain; snap-on type; white



**Item No.: 793-501/000-002**  
WMB marking card; as card; not stretchable; plain; snap-on type; yellow



**Item No.: 2009-115/000-006**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue



**Item No.: 2009-115/000-007**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray



**Item No.: 2009-115/000-023**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green



**Item No.: 2009-115/000-017**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green



**Item No.: 2009-115/000-012**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange



**Item No.: 2009-115/000-024**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet



**Item No.: 2009-115**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white



**Item No.: 2009-115/000-002**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

1.2.7 Protective warning marker

1.2.7.1 Cover



**Item No.: 280-415**  
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

## 1.2.8 Push-in type wire jumper

### 1.2.8.1 Jumper



**Item No.: 249-126**

Push-in type wire jumper; 0.75 mm<sup>2</sup>; insulated; 110 mm long; black



**Item No.: 249-123**

Push-in type wire jumper; 0.75 mm<sup>2</sup>; insulated; 180 mm long; black



**Item No.: 249-127**

Push-in type wire jumper; 0.75 mm<sup>2</sup>; insulated; 250 mm long; black



**Item No.: 249-125**

Push-in type wire jumper; insulated; 60 mm long; black

## 1.2.9 Test and measurement

### 1.2.9.1 Testing accessories



**Item No.: 209-170**

Test plug adapter; 8.3 mm wide; for 4 mm Ø test plugs; suitable for 1.5 mm<sup>2</sup> - 10 mm<sup>2</sup> tbs; gray

## 1.2.10 Tool

### 1.2.10.1 Operating tool



**Item No.: 210-658**

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured



**Item No.: 210-720**

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

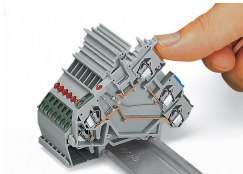


**Item No.: 210-657**

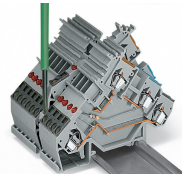
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

## Installation Notes

### Installation

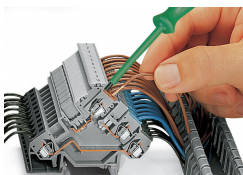


Snapping a terminal block onto the DIN-rail. Terminal blocks with a grounding foot automatically establish a direct contact to the rail.



Removing the terminal block from DIN-rail. Notice: Remove jumper contacts first!

## Conductor termination



**CAGE CLAMP® connection**

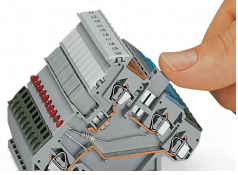
Inserting a conductor via straight operating tool (210-720).



**CAGE CLAMP® connection**

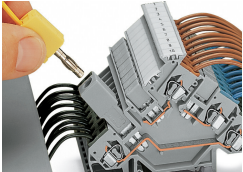
Inserting a conductor via angled operating tool (210-658).

## Commoning

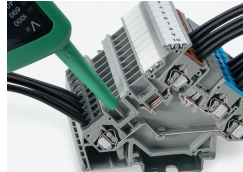


Commoning using an adjacent jumper (280-402).  
Push jumper down until fully inserted.

## Testing

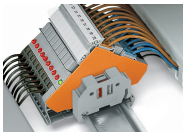


Testing via banana plug and test plug adapter (209-170).

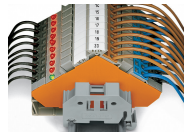


Testing via voltage tester directly on the current bar.

## Application

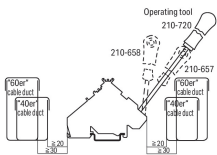


Sensor terminal blocks  
Power supply from sensor side



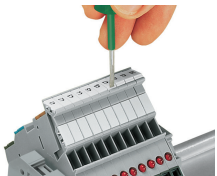
Terminal block assembly:  
Sensor LED terminal blocks

## Installation



Min. mounting distance – terminal blocks  
to cable duct

## Marking



Labeling via WMB Multi Marking System.