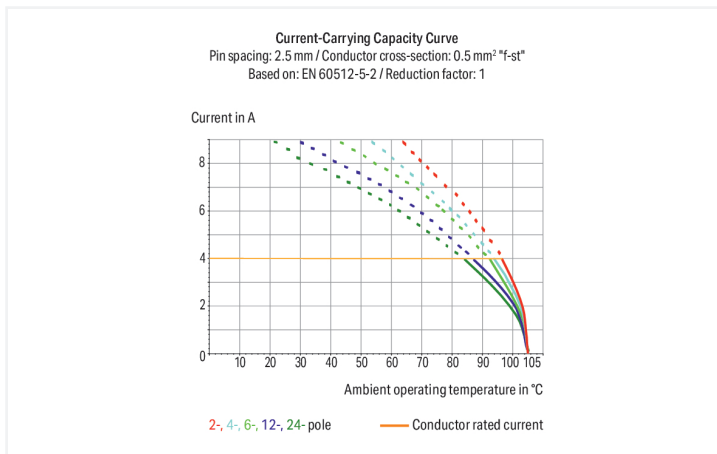


# Data Sheet | Item Number: 250-409

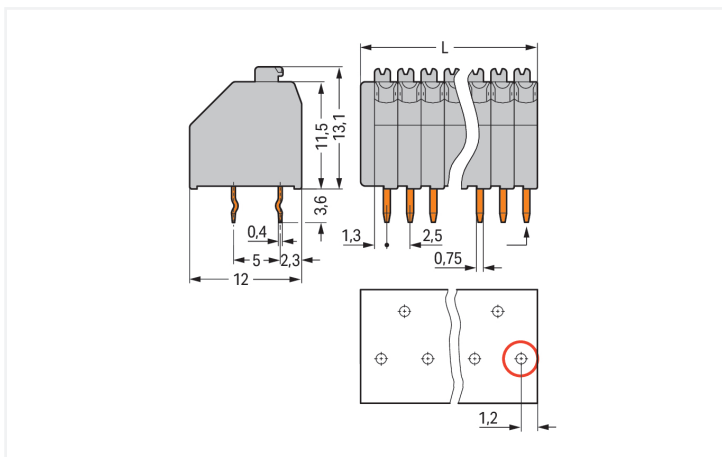
PCB terminal block; push-button; 0.5 mm<sup>2</sup>; Pin spacing 2.5 mm; 9-pole; Push-in CAGE CLAMP®; gray

<https://www.wago.com/250-409>



Color: ■ gray

Similar to illustration



Dimensions in mm

L = (pole no. x pin spacing) + 1.5 mm First solder pin, front right (red circle)

## PCB terminal block, 250 Series, gray

This PCB terminal block (item number 250-409) streamlines wire connections, making them both quick and easy. It offers the flexibility needed for different mounting types. Ensure that the strip lengths are between 8.5 and 9.5 mm when connecting conductors to this PCB terminal block. Featuring one conductor terminal along with Push-in CAGE CLAMP®, this connector is highly versatile. Push-in CAGE CLAMP® technology provides a universal connection solution for all conductor types. It allows both solid and fine-stranded conductors with ferrules to be inserted directly into the clamping point without the need for tools. The dimensions are (24 x 16.7 x 12) mm (width x height x depth). Depending on the type of conductor, this PCB terminal block is designed for conductor cross sections ranging from 0.14 mm<sup>2</sup> to 0.5 mm<sup>2</sup>. Tin is used for coating the contact surfaces. This PCB terminal block is operated with a push-button. THT is used to assemble the PCB terminal block. The conductor is designed to be inserted at an angle of 45°.

## Notes

|           |  |
|-----------|--|
| Variants: | Other pole numbers<br>Other colors<br>Mixed-color PCB connector strips<br>Terminal strips with spacers<br>Direct marking<br>Other versions (or variants) can be requested from WAGO Sales or configured at <a href="https://configurator.wago.com/">https://configurator.wago.com/</a> . |
|-----------|--|

## Electrical data

| Ratings per                     | IEC/EN 60664-1 |        |        |
|---------------------------------|----------------|--------|--------|
| Overvoltage category            | III            | III    | II     |
| Pollution degree                | 3              | 2      | 2      |
| Nominal voltage                 | 160 V          | 160 V  | 320 V  |
| Rated impulse withstand voltage | 2.5 kV         | 2.5 kV | 2.5 kV |
| Rated current                   | 4 A            | 4 A    | 4 A    |

| Approvals per | UL 1059 |   |       |
|---------------|---------|---|-------|
| Use group     | B       | C | D     |
| Rated voltage | 300 V   | - | 300 V |
| Rated current | 5 A     | - | 5 A   |

| Approvals per | CSA   |   |       |
|---------------|-------|---|-------|
| Use group     | B     | C | D     |
| Rated voltage | 300 V | - | 300 V |
| Rated current | 5 A   | - | 5 A   |

## Connection Data

|                            |   |
|----------------------------|---|
| Clamping units             | 9 |
| Total number of potentials | 9 |
| Number of connection types | 1 |
| Number of levels           | 1 |

| Connection 1                          |  |
|---------------------------------------|--|
| Connection technology                 | Push-in CAGE CLAMP®                          |
| Actuation type                        | Push-button                                  |
| Solid conductor                       | 0.14 ... 0.5 mm <sup>2</sup> / 24 ... 20 AWG |
| Fine-stranded conductor               | 0.2 ... 0.5 mm <sup>2</sup> / 24 ... 20 AWG  |
| Conductor diameter                    | 0.4 ... 0.8 mm / 24 ... 20 AWG               |
| Strip length                          | 8.5 ... 9.5 mm / 0.33 ... 0.37 inches        |
| Conductor connection direction to PCB | 45 °   |
| Pole number                           | 9  |

## Physical data

|                         |                        |
|-------------------------|------------------------|
| Pin spacing             | 2.5 mm / 0.098 inches  |
| Width                   | 24 mm / 0.945 inches   |
| Height                  | 16.7 mm / 0.657 inches |
| Height from the surface | 13.1 mm / 0.516 inches |
| Depth                   | 12 mm / 0.472 inches   |
| Solder pin length       | 3.6 mm                 |
| Solder pin dimensions   | 0.4 x 0.75 mm          |
| !                       | 1.1 (+0.1) mm          |

### PCB contact

|                                     |  |
|-------------------------------------|--|
| PCB contact                         | THT  |
| Solder pin arrangement              | over the entire terminal strip (staggered) |
| Number of solder pins per potential | 1  |

### 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   |
| Clamping spring material           | Copper alloy   |
| Contact Plating                    | Tin  |
| Fire load                          | 0.078 MJ   |
| Weight                             | 3.3 g  |

### Environmental requirements

|                         |                 |
|-------------------------|-----------------|
| Limit temperature range | -60 ... +105 °C |
|-------------------------|-----------------|

### Commercial data

|                       |                                |
|-----------------------|--------------------------------|
| Product Group         | 4 (Printed Circuit Connectors) |
| PU (SPU)              | 200 (50) pcs                   |
| Packaging type        | Box                            |
| Country of origin     | CH                             |
| GTIN                  | 4044918643023                  |
| Customs tariff number | 85369010000                    |

### Product Classification

|             |                      |
|-------------|----------------------|
| UNSPSC      | 39121409             |
| eCl@ss 10.0 | 27-44-04-01          |
| eCl@ss 9.0  | 27-44-04-01          |
| ETIM 9.0    | EC002643             |
| ETIM 10.0   | EC002643             |
| 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 | NTR NL 7833/2    |
| CCA<br>DEKRA Certification B.V. | EN 60998 | NTR NL-7705/1    |

#### General approvals

|                                       |              |            |
|---------------------------------------|--------------|------------|
| CSA<br>DEKRA Certification B.V.       | C22.2        | 1132097    |
| DEKRA<br>DEKRA Certification B.V.     | EN 60947-7-4 | 71-141963  |
| KEMA/KEUR<br>DEKRA Certification B.V. | EN 60947     | 2160584.18 |
| KEMA/KEUR<br>DEKRA Certification B.V. | EN 60998     | 71-124629  |
| UL<br>UL International Germany GmbH   | UL 1059      | E45172     |

Declarations of conformity and manufacturer's declarations

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

Approvals for marine applications



| Approval                                | Standard | Certificate Name |
|---|----------|------------------|
| ABS<br>American Bureau of Ship-<br>ping | -        | 24-0095975-PDA   |
| DNV<br>DNV GL SE                        | -        | TAE000016Z       |

Downloads

Environmental Product Compliance

| Compliance Search                           |                   |
|---|-------------------|
| Environmental Product<br>Compliance 250-409 | <a href="#">↓</a> |

Documentation

| Additional Information |            |                   |                   |
|------------------------|------------|-------------------|-------------------|
| Technical Section      | 03.04.2019 | pdf<br>2027.26 KB | <a href="#">↓</a> |

CAD/CAE-Data

| CAD data             |                   |
|----------------------|-------------------|
| 2D/3D Models 250-409 | <a href="#">↓</a> |

| CAE data                     |                   |
|------------------------------|-------------------|
| EPLAN Data Portal<br>250-409 | <a href="#">↓</a> |
| ZUKEN Portal 250-409         | <a href="#">↓</a> |

PCB Design

|  |                   |
|--|-------------------|
| Symbol and Footprint<br>via SamacSys 250-409           | <a href="#">↓</a> |
| Symbol and Footprint<br>via Ultra Librarian<br>250-409 | <a href="#">↓</a> |

## 1 Compatible Products

### 1.1 Optional Accessories

#### 1.1.1 Marking

##### 1.1.1.1 Marking strip



**Item No.: 210-331/250-202**

Marking strips; as a DIN A4 sheet; MARKED; 1-16 (400x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white

**Item No.: 210-331/250-207**

Marking strips; as a DIN A4 sheet; MARKED; 1-48 (100x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white

**Item No.: 210-331/250-204**

Marking strips; as a DIN A4 sheet; MARKED; 17-32 (400x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white

**Item No.: 210-331/250-206**

Marking strips; as a DIN A4 sheet; MARKED; 33-48 (400x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white

### 1.1.2 Test and measurement

#### 1.1.2.1 Testing accessories



**Item No.: 735-500**

WAGO Test pin; 1 mm Ø; 30 V AC / 60 V DC; CAT0; 1 A; 6 mm uninsulated; Test lead for soldering up to 0,5mm<sup>2</sup>

### 1.1.3 Tool

#### 1.1.3.1 Operating tool



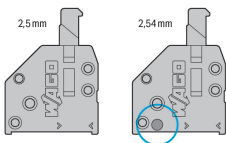
**Item No.: 210-719**

Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

**Item No.: 210-647**

Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured

## Installation Notes



A groove at the back of the terminal strip differentiates between the two pin spacings.

## Conductor termination



Inserting solid conductors via push-in termination.  
Inserting fine-stranded conductors via push-buttons, 250 Series – 3.5 mm pin spacing.

## Conductor termination



Space-saving wiring, 250 Series – 5 mm pin spacing.

## Testing



Testing with 11 mm Ø test pin, on the conductor, 250 Series – 2.5 ... 3.5 mm pin spacing.



Testing with 2 mm Ø test plug, touch contact, 250 Series – 5 mm pin spacing.

## Marking



Labeling via self-adhesive strips or direct marking. Mixed-color terminal strips (with or without spacer) are available upon request.



Labeling via self-adhesive strips or direct marking. Mixed-color terminal strips (with or without spacer) are available upon request.