

**Data sheet | Item number: 250-309**

PCB terminal block; push-button; 0.5 mm<sup>2</sup>; Pin spacing 2.5 mm; 9-pole; Push-in CAGE CLAMP®; 0,50 mm<sup>2</sup>; gray



[www.wago.com/250-309](http://www.wago.com/250-309)



Subject to changes. Please also observe the further product documentation!

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We are always happy to take your call at +49 (571) 887-44222.



### Item description

- Compact PCB terminal strips with push-buttons
- Push-in termination of solid conductors
- Termination/removal of fine-stranded conductors via push-buttons
- 45° conductor entry angle provides easy, space-saving wiring
- Custom color combinations
- Terminal strips also available with spacers upon request

Subject to changes. Please also observe the further product documentation!



## Data 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

| Ratings per                   | IEC/EN 60664-1  |
|-------------------------------|---|
| Nominal voltage (III/3)       | 100 V   |
| Rated impulse voltage (III/3) | 2.5 kV  |
| Rated voltage (III/2)         | 160 V   |
| Rated impulse voltage (III/2) | 2.5 kV  |
| Nominal voltage (II/2)        | 320 V   |
| Rated surge voltage (II/2)    | 2.5 kV  |
| Rated current                 | 4 A   |
| Legend (ratings)              | (III / 2) ≙ Overvoltage category III / Pollution degree 2 |

### Ratings per UL

| Approvals per                  | UL 1059 |
|--------------------------------|---------|
| Rated voltage UL (Use Group B) | 300 V   |
| Rated current UL (Use Group B) | 5 A     |
| Rated voltage UL (Use Group D) | 300 V   |
| Rated current UL (Use Group D) | 5 A     |

### Ratings per CSA

| Approvals per                   | CSA   |
|---------------------------------|-------|
| Rated voltage CSA (Use Group B) | 300 V |
| Rated current CSA (Use Group B) | 2 A   |
| Rated voltage CSA (Use Group D) | 300 V |
| Rated current CSA (Use Group D) | 2 A   |

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## Connection data

|                            |   |
|----------------------------|---|
| Connection points          | 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            |
| Drilled hole diameter with tolerance | 1.1 <sup>(+0.1)</sup> mm |

## Plug-in connection

|                                      |    |
|--------------------------------------|----|
| Plugging without loss of pin spacing | No |
|--------------------------------------|----|

## PCB contact

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

Subject to changes. Please also observe the further product documentation!



## Material Data

Note (material data)

Information on material specifications can be found here

|                             |                  |
|-----------------------------|------------------|
| Color                       | gray             |
| Material group              | I                |
| Insulation material         | Polyamide (PA66) |
| Flammability class per UL94 | V0               |
| Clamping spring material    | Copper alloy     |
| Contact plating             | Tin              |
| Fire load                   | 0.078 MJ         |
| Weight                      | 3.2 g            |

## Environmental requirements

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

## Commercial data

|                       |                                |
|-----------------------|--------------------------------|
| Product Group         | 4 (Printed Circuit Connectors) |
| eCl@ss 10.0           | 27-44-04-01                    |
| eCl@ss 9.0            | 27-44-04-01                    |
| ETIM 8.0              | EC002643                       |
| ETIM 7.0              | EC002643                       |
| PU (SPU)              | 200 (50) pcs                   |
| Packaging type        | box                            |
| Country of origin     | CH                             |
| GTIN                  | 4050821573159                  |
| Customs tariff number | 85369010000                    |

## Environmental Product Compliance

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

## Approvals / Certificates

### General approvals

| Logo | Approval                               | Additional Approval Text | Certificate name |
|------|--|--------------------------|------------------|
|      | <b>CSA</b><br>DEKRA Certification B.V. | C22.2 No. 158            | 1132097          |

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## Optional accessories

### Marking accessories

#### Marking strip

**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

[www.wago.com/210-331/250-207](http://www.wago.com/210-331/250-207)

**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

[www.wago.com/210-331/250-202](http://www.wago.com/210-331/250-202)

**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

[www.wago.com/210-331/250-204](http://www.wago.com/210-331/250-204)

**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

[www.wago.com/210-331/250-206](http://www.wago.com/210-331/250-206)

### Testing and measuring

#### 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>

[www.wago.com/735-500](http://www.wago.com/735-500)

### Tool

#### Operating tool

**Item no.: 210-647**

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

[www.wago.com/210-647](http://www.wago.com/210-647)

**Item no.: 210-719**

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

[www.wago.com/210-719](http://www.wago.com/210-719)

## Downloads

### Documentation

#### Additional Information

2019 年4月3日

pdf  
2.0 MB

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## CAD/CAE-Data

### CAD data

Subject to changes. Please also observe the further product documentation!



2D/3D Models 250-309

URL

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### PCB Design

Symbol and Footprint 250-309

URL

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CAX data for your PCB design, consisting of "schematic symbols and PCB footprints", allow easy integration of the WAGO component into your development environment.

### Supported formats:

- Accel EDA 14 & 15
- Altium 6 to current version
- Cadence Allegro
- DesignSpark
- Eagle Libraries
- KiCad
- Mentor Graphics BoardStation
- Mentor Graphics Design Architect
- Mentor Graphics Design Expedition 99 and 2000
- OrCAD 9.X PCB and Capture
- PADS PowerPCB 3, 3.5, 4.X, and 5.X
- PADS PowerPCB and PowerLogic 3.0
- PCAD 2000, 2001, 2002, 2004, and 2006
- Pulsonix 8.5 or newer
- STL
- 3D STEP
- TARGET 3001!
- View Logic ViewDraw
- Quadcept
- Zuken CadStar 3 and 4
- Zuken CR-5000 and CR-8000

PCB Component Libraries (EDA), PCB CAD Library Ultra Librarian

### CAE data

ZUKEN Portal 250-309

URL

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## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 250-309

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## Installation Notes

### 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

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Subject to changes. Please also observe the further product documentation!





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.



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