

**Data sheet | Item number: 233-108**

PCB terminal block; 0.5 mm<sup>2</sup>; Pin spacing 2.5 mm; 8-pole; CAGE CLAMP®;  
0,50 mm<sup>2</sup>; gray

[www.wago.com/233-108](http://www.wago.com/233-108)



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

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## Item description

- Compact terminal strips with CAGE CLAMP<sup>®</sup> connection and screwdriver actuation parallel or perpendicular to conductor entry
- Double solder pins for high mechanical stability
- Custom color combinations

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>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)       | 63 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                 | 6 A   |
| Legend (ratings)              | (III / 2) $\hat{=}$ Overvoltage category III / Pollution degree 2 |

**Ratings per UL**

|                                |         |
|--------------------------------|---------|
| Approvals per                  | UL 1059 |
| Rated voltage UL (Use Group B) | 150 V   |
| Rated current UL (Use Group B) | 4 A     |

**Ratings per CSA**

|                                 |       |
|---------------------------------|-------|
| Approvals per                   | CSA   |
| Rated voltage CSA (Use Group B) | 150 V |
| Rated current CSA (Use Group B) | 4 A   |

**Connection data**

|                            |   |
|----------------------------|---|
| Connection points          | 8 |
| Total number of potentials | 8 |
| Number of connection types | 1 |

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



|                  |   |
|------------------|---|
| Number of levels | 1 |
|------------------|---|

### Connection 1

|   |   |
|---|---|
| Connection technology                             | CAGE CLAMP®   |
| Actuation type                                    | Operating tool  |
| Solid conductor                                   | 0.08 ... 0.5 mm <sup>2</sup> / 28 ... 20 AWG  |
| Fine-stranded conductor                           | 0.08 ... 0.5 mm <sup>2</sup> / 28 ... 20 AWG  |
| Fine-stranded conductor; with insulated ferrule   | 0.25 mm <sup>2</sup>  |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 mm <sup>2</sup>  |
| Note (conductor cross-section)                    | Terminating 0.75 mm <sup>2</sup> /18 AWG conductors is possible; however insulation diameter allows only every other clamping unit to be terminated with this conductor size. |
| Strip length                                      | 5 ... 6 mm / 0.2 ... 0.24 inches  |
| Conductor connection direction to PCB             | 30 °  |
| Pole number                                       | 8   |

### Physical data

|                                      |                          |
|--------------------------------------|--------------------------|
| Pin spacing                          | 2.5 mm / 0.098 inches    |
| Width                                | 22.3 mm / 0.878 inches   |
| Height                               | 15.7 mm / 0.618 inches   |
| Height from the surface              | 11.7 mm / 0.461 inches   |
| Depth                                | 12.1 mm / 0.476 inches   |
| Solder pin length                    | 4 mm                     |
| Solder pin dimensions                | 0.5 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

### PCB contact

|                                     |  |
|-------------------------------------|--|
| PCB contact                         | THT                                      |
| Solder pin arrangement              | over the entire terminal strip (in-line) |
| Number of solder pins per potential | 2  |

### Material Data

Note (material data)

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



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    | Chrome-nickel spring steel (CrNi)      |
| Contact material            | Electrolytic copper (E <sub>Cu</sub> ) |
| Contact plating             | Tin                                    |
| Fire load                   | 0.036 MJ                               |
| Weight                      | 2.8 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)              | 220 (55) pcs                   |
| Packaging type        | box                            |
| Country of origin     | CH                             |
| GTIN                  | 4045454049201                  |
| Customs tariff number | 85369010000                    |

### Environmental Product Compliance

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

### Approvals / Certificates

#### General approvals

| Logo | Approval                        | Additional Approval Text | Certificate name |
|------|---------------------------------|--------------------------|------------------|
|      | CCA<br>DEKRA Certification B.V. | EN 60998                 | NTR NL<br>6946   |
|      | CCA                             | EN 60998                 | 2153951.01       |

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|  |              |  |                |
|--|--------------|--|----------------|
| DEKRA Certification B.V.                     |              |  |                |
| <b>CCA</b><br>DEKRA Certification B.V.       | EN 60947-7-4 |  | NTR NL<br>7786 |
| <b>CSA</b><br>DEKRA Certification B.V.       | C22.2        |  | 1465035        |
| <b>KEMA/KEUR</b><br>DEKRA Certification B.V. | EN 60947-7-4 |  | 71-111040      |
| <b>UL</b><br>UL International Germany GmbH   | UL 1059      |  | E45172         |

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

| Logo | Approval  | Additional Approval Text | Certificate name |
|------|---|--------------------------|------------------|
|      | <b>EU-Declaration of Conformity</b><br>WAGO GmbH & Co. KG | -                        | -                |
|      | <b>UK-Declaration of Conformity</b><br>WAGO GmbH & Co. KG | -                        | -                |

#### Approvals for marine applications

| Logo | Approval  | Additional Approval Text | Certificate name         |
|------|---|--------------------------|--------------------------|
|      | <b>ABS</b><br>American Bureau of Shipping               | -                        | 19-<br>HG1869876-<br>PDA |
|      | <b>DNV GL</b><br>Det Norske Veritas, Germanischer Lloyd | -                        | TAE000016Z               |

#### Optional accessories

##### Marking accessories

| Marking strip                    |   |  |  |
|----------------------------------|---|--|--|
| <b>Item no.: 210-331/250-207</b> | 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  |  | <a href="http://www.wago.com/210-331/250-207">www.wago.com/210-331/250-207</a> |
| <b>Item no.: 210-331/250-202</b> | 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  |  | <a href="http://www.wago.com/210-331/250-202">www.wago.com/210-331/250-202</a> |
| <b>Item no.: 210-331/254-204</b> | 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 |  | <a href="http://www.wago.com/210-331/254-204">www.wago.com/210-331/254-204</a> |
| <b>Item no.: 210-331/250-204</b> | 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 |  | <a href="http://www.wago.com/210-331/250-204">www.wago.com/210-331/250-204</a> |

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length 182 mm; Horizontal marking; Self-adhesive; white

**Item no.: 210-331/254-206**

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/210-331/254-206](http://www.wago.com/210-331/254-206)

**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)

**Item no.: 210-331/254-202**

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/210-331/254-202](http://www.wago.com/210-331/254-202)

**Item no.: 210-331/254-207**

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/210-331/254-207](http://www.wago.com/210-331/254-207)

## Ferrule

### Ferrule

**Item no.: 216-131**

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated; silver-colored

[www.wago.com/216-131](http://www.wago.com/216-131)

**Item no.: 216-151**

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

[www.wago.com/216-151](http://www.wago.com/216-151)

**Item no.: 216-301**

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

[www.wago.com/216-301](http://www.wago.com/216-301)

**Item no.: 216-321**

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

[www.wago.com/216-321](http://www.wago.com/216-321)

## Tool

### Operating tool

**Item no.: 210-648**

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

[www.wago.com/210-648](http://www.wago.com/210-648)

**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)

**Item no.: 233-332**

Operating tool; made of insulating material; white

[www.wago.com/233-332](http://www.wago.com/233-332)

**Item no.: 233-331**

Operating tool; insulated; yellow

[www.wago.com/233-331](http://www.wago.com/233-331)

**Item no.: 233-335**

Operating tool; green

[www.wago.com/233-335](http://www.wago.com/233-335)

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## Downloads

### Documentation

#### Additional Information

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## CAD/CAE-Data

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2D/3D Models 233-108

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### PCB Design

Symbol and Footprint 233-108

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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

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- Zuken CadStar 3 and 4
- Zuken CR-5000 and CR-8000

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

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## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 233-108

URL

Download

PCB terminal block; 0.5 mm<sup>2</sup>; Pin spacing 2.5 mm; 8-pole; CAGE CLAMP®; 0,50 mm<sup>2</sup>; gray

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## Installation Notes

### Conductor termination



Inserting a conductor via 3.5 mm screwdriver.

Screwdriver actuation parallel to conductor entry



Inserting a conductor via 3.5 mm screwdriver.

Screwdriver actuation perpendicular to conductor entry

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

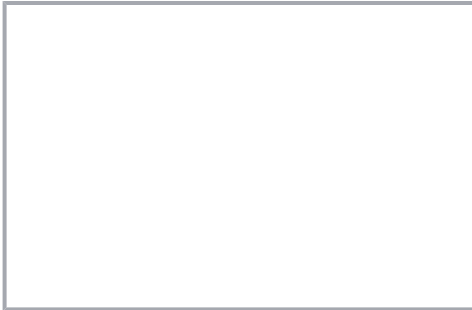


Inserting a conductor via operating tool.



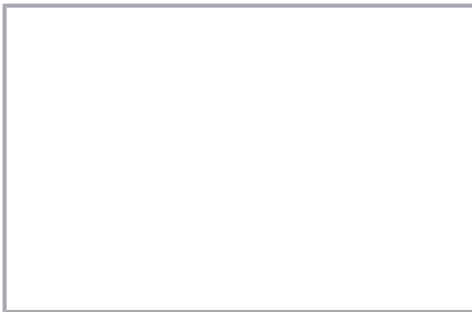
Compared to standard screwdrivers, these operating tools are far more convenient for wiring PCB terminal strips at factory.

### Installation



PCB Terminal Strips placed behind each other save space – staggering them by half the pin spacing simplifies subsequent wiring of the first row.

### Installation



Combining PCB terminal blocks with different pin spacing.

### Marking

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



Optional: Labeling via factory direct marking.



Optional: Labeling with self-adhesive marking strips possible

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