

**Data sheet | Item number: 235-102**

PCB terminal block; push-button; 1.5 mm<sup>2</sup>; Pin spacing 3.81 mm; 2-pole;  
Push-in CAGE CLAMP®; 1,50 mm<sup>2</sup>; orange



[www.wago.com/235-102](http://www.wago.com/235-102)



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

- PCB terminal strips with push-buttons
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons

## Data

### Notes

Variants:

Other pole numbers

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

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Other colors

Mixed-color PCB connector strips

Direct marking

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

## Electrical data

### Ratings per IEC/EN

| Ratings per                   | IEC/EN 60664-1  |
|-------------------------------|---|
| Nominal voltage (III/3)       | 200 V   |
| Rated impulse voltage (III/3) | 4 kV  |
| Rated voltage (III/2)         | 320 V   |
| Rated impulse voltage (III/2) | 4 kV  |
| Nominal voltage (II/2)        | 500 V   |
| Rated surge voltage (II/2)    | 4 kV  |
| Rated current                 | 17.5 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) | 300 V   |
| Rated current UL (Use Group B) | 10 A    |
| Rated voltage UL (Use Group D) | 300 V   |
| Rated current UL (Use Group D) | 10 A    |

### Ratings per CSA

| Approvals per                   | CSA   |
|---------------------------------|-------|
| Rated voltage CSA (Use Group B) | 300 V |
| Rated current CSA (Use Group B) | 10 A  |

### Connection data

|                            |   |
|----------------------------|---|
| Connection points          | 2 |
| Total number of potentials | 2 |
| Number of connection types | 1 |
| Number of levels           | 1 |

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## Connection 1

|   |   |
|---|---|
| Connection technology                             | Push-in CAGE CLAMP®   |
| Actuation type                                    | Push-button   |
| Solid conductor                                   | 0.5 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG                                       |
| Fine-stranded conductor                           | 0.75 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG                                      |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 1 mm <sup>2</sup>  |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1 mm <sup>2</sup>  |
| Note (conductor cross-section)                    | Fine-stranded conductor 0.75 ... 1.5 mm <sup>2</sup> / 18 ... 16 AWG (I max. 4 A) |
| Strip length                                      | 9 ... 10 mm / 0.35 ... 0.39 inches  |
| Conductor connection direction to PCB             | 0°  |
| Pole number                                       | 2   |

## Physical data

|                                      |                        |
|--------------------------------------|------------------------|
| Pin spacing                          | 3.81 mm / 0.15 inches  |
| Width                                | 9.12 mm / 0.359 inches |
| Height                               | 19.1 mm / 0.752 inches |
| Height from the surface              | 15.5 mm / 0.61 inches  |
| Depth                                | 12.5 mm / 0.492 inches |
| Solder pin length                    | 3.6 mm                 |
| Solder pin dimensions                | 0.4 x 0.8 mm           |
| Drilled hole diameter with tolerance | 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 | 2  |

## Material Data

|                      |  |
|----------------------|--|
| Note (material data) | Information on material specifications can be found here |
| Color                | orange   |
| Material group       | I  |

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



|                             |  |
|-----------------------------|--|
| 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                   | 0.023 MJ                               |
| Weight                      | 1.3 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)              | 520 (130) pcs                  |
| Packaging type        | box                            |
| Country of origin     | CN                             |
| GTIN                  | 4044918828277                  |
| 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>CCA</b><br>DEKRA Certification B.V. | EN 60947                 | NTR NL-7144      |
|      | <b>CCA</b><br>DEKRA Certification B.V. | EN 60998                 | NTR NL-6919      |
|      | <b>CCA</b><br>DEKRA Certification B.V. | EN 60947-7-4             | NTR NL-7774      |
|      | <b>CSA</b>                             | C22.2                    | 1673956          |

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DEKRA Certification B.V.

KEMA/KEUR

EN 60947

2160584.38

DEKRA Certification B.V.

## 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>BV</b><br>Bureau Veritas S.A.                        | IEC 60998                | 11915/DO<br>BV           |
|      | <b>DNV GL</b><br>Det Norske Veritas, Germanischer Lloyd | -                        | TAE000016Z               |

## Optional accessories

## Ferrule

| Ferrule  |  |
|--|--|
| <b>Item no.: 216-101</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored  | <a href="http://www.wago.com/216-101">www.wago.com/216-101</a> |
| <b>Item no.: 216-102</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored   | <a href="http://www.wago.com/216-102">www.wago.com/216-102</a> |
| <b>Item no.: 216-103</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated  | <a href="http://www.wago.com/216-103">www.wago.com/216-103</a> |
| <b>Item no.: 216-123</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated; silver-colored  | <a href="http://www.wago.com/216-123">www.wago.com/216-123</a> |
| <b>Item no.: 216-122</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored   | <a href="http://www.wago.com/216-122">www.wago.com/216-122</a> |
| <b>Item no.: 216-142</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92 | <a href="http://www.wago.com/216-142">www.wago.com/216-142</a> |
| <b>Item no.: 216-132</b>   | <a href="http://www.wago.com/216-132">www.wago.com/216-132</a> |

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Ferrule; Sleeve for 0.34 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated

**Item no.: 216-121**

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

[www.wago.com/216-121](http://www.wago.com/216-121)

**Item no.: 216-143**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92

[www.wago.com/216-143](http://www.wago.com/216-143)

**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.: 216-141**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92

[www.wago.com/216-141](http://www.wago.com/216-141)

**Item no.: 216-152**

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated

[www.wago.com/216-152](http://www.wago.com/216-152)

**Item no.: 216-203**

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

[www.wago.com/216-203](http://www.wago.com/216-203)

**Item no.: 216-202**

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

[www.wago.com/216-202](http://www.wago.com/216-202)

**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.: 216-201**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; white

[www.wago.com/216-201](http://www.wago.com/216-201)

**Item no.: 216-223**

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

[www.wago.com/216-223](http://www.wago.com/216-223)

**Item no.: 216-241**

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

[www.wago.com/216-241](http://www.wago.com/216-241)

**Item no.: 216-242**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray

[www.wago.com/216-242](http://www.wago.com/216-242)

**Item no.: 216-222**

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

[www.wago.com/216-222](http://www.wago.com/216-222)

**Item no.: 216-221**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; white

[www.wago.com/216-221](http://www.wago.com/216-221)

**Item no.: 216-243**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red

[www.wago.com/216-243](http://www.wago.com/216-243)

**Item no.: 216-263**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red

[www.wago.com/216-263](http://www.wago.com/216-263)

**Item no.: 216-262**

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

[www.wago.com/216-262](http://www.wago.com/216-262)

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

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crimped; acc. to DIN 46228, Part 4/09.90; gray

**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)

**Item no.: 216-322**

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

[www.wago.com/216-322](http://www.wago.com/216-322)

**Item no.: 216-302**

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

[www.wago.com/216-302](http://www.wago.com/216-302)

**Tool**

## Operating tool

**Item no.: 210-657**

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

[www.wago.com/210-657](http://www.wago.com/210-657)

**Item no.: 210-720**

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

[www.wago.com/210-720](http://www.wago.com/210-720)

**Marking accessories**

## Marking strip

**Item no.: 210-332/381-202**

Marking strips; as a DIN A4 sheet; MARKED; 1-16 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

[www.wago.com/210-332/381-202](http://www.wago.com/210-332/381-202)

**Item no.: 210-332/381-206**

Marking strips; as a DIN A4 sheet; MARKED; 33-48 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

[www.wago.com/210-332/381-206](http://www.wago.com/210-332/381-206)

**Item no.: 210-332/381-205**

Marking strips; as a DIN A4 sheet; MARKED; 1-32 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

[www.wago.com/210-332/381-205](http://www.wago.com/210-332/381-205)

**Item no.: 210-332/381-204**

Marking strips; as a DIN A4 sheet; MARKED; 17-32 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

[www.wago.com/210-332/381-204](http://www.wago.com/210-332/381-204)

**Downloads****Documentation****Additional Information**

2019 年4月3日

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2.0 MB

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## CAD/CAE-Data

### CAD data

|                      |                     |                          |
|----------------------|---------------------|--------------------------|
| 2D/3D Models 235-102 | <a href="#">URL</a> | <a href="#">Download</a> |
|----------------------|---------------------|--------------------------|

### CAE data

|                           |                     |                          |
|---------------------------|---------------------|--------------------------|
| EPLAN Data Portal 235-102 | <a href="#">URL</a> | <a href="#">Download</a> |
|---------------------------|---------------------|--------------------------|

|                      |                     |                          |
|----------------------|---------------------|--------------------------|
| ZUKEN Portal 235-102 | <a href="#">URL</a> | <a href="#">Download</a> |
|----------------------|---------------------|--------------------------|

### PCB Design

|                              |                     |                          |
|------------------------------|---------------------|--------------------------|
| Symbol and Footprint 235-102 | <a href="#">URL</a> | <a href="#">Download</a> |
|------------------------------|---------------------|--------------------------|

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

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

- 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 235-102   | URL | Download |
| PCB terminal block; push-button; 1.5 mm <sup>2</sup> ; Pin spacing 3.81 mm; 2-pole; Push-in CAGE CLAMP®; 1,50 mm <sup>2</sup> ; orange |     |          |

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## Installation Notes

### Conductor termination



Inserting/removing fine-stranded conductors via push-button.



Insert/remove fine-stranded conductors with ferrules via push-button.



Insert solid conductors via push-in termination.

### Installation

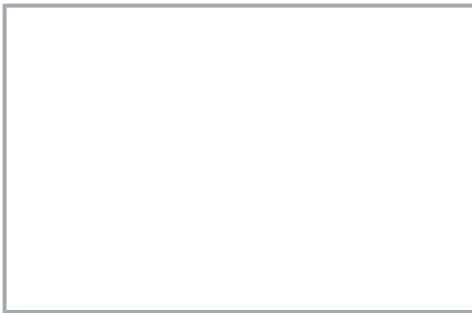
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Subject to changes. Please also observe the further product documentation!



Combining 1- and 2-conductor terminal blocks with different pin spacing.

### Testing



Application example: field-wiring terminal strip

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