

**Data sheet | Item number: 250-120**

PCB terminal block; push-button; 1.5 mm<sup>2</sup>; Pin spacing 3.5 mm; 20-pole;  
Push-in CAGE CLAMP®; 1,50 mm<sup>2</sup>; gray



[www.wago.com/250-120](http://www.wago.com/250-120)



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

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### Item description

- Compact terminal strips with push-buttons
- Push-in terminations of solid and ferruled 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

Other colors

Mixed-color PCB connector strips

Terminal strips with spacers

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)       | 160 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                 | 8 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) | 10 A  |
| Rated voltage CSA (Use Group D) | 300 V |
| Rated current CSA (Use Group D) | 10 A  |

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## Connection data

|                            |    |
|----------------------------|----|
| Connection points          | 20 |
| Total number of potentials | 20 |
| Number of connection types | 1  |
| Number of levels           | 1  |

## Connection 1

|   |   |
|---|---|
| Connection technology                             | Push-in CAGE CLAMP®                         |
| Actuation type                                    | Push-button                                 |
| Solid conductor                                   | 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 16 AWG |
| Fine-stranded conductor                           | 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 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>                  |
| Strip length                                      | 8.5 ... 9.5 mm / 0.33 ... 0.37 inches       |
| Conductor connection direction to PCB             | 45 °  |
| Pole number                                       | 20  |

## Physical data

|                                      |                          |
|--------------------------------------|--------------------------|
| Pin spacing                          | 3.5 mm / 0.138 inches    |
| Width                                | 71.5 mm / 2.815 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                    | 3.4 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                   | 0.206 MJ         |
| Weight                      | 9.3 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)              | 60 (15) pcs                    |
| Packaging type        | box                            |
| Country of origin     | CH                             |
| GTIN                  | 4044918648059                  |
| 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 60947                 | NTR NL<br>7833/2 |

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|  |          |                   |
|--|----------|-------------------|
| <b>CCA</b><br>DEKRA Certification B.V.       | EN 60998 | NTR NL-<br>7705/1 |
| <b>CSA</b><br>DEKRA Certification B.V.       | C22.2    | 1132097           |
| <b>KEMA/KEUR</b><br>DEKRA Certification B.V. | EN 60947 | 2160584.18        |
| <b>KEMA/KEUR</b><br>DEKRA Certification B.V. | EN 60998 | 71-124629         |
| <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>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> |

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|  |  |
|--|--|
| <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><br>Ferrule; Sleeve for 0.34 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated   | <a href="http://www.wago.com/216-132">www.wago.com/216-132</a> |
| <b>Item no.: 216-121</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/216-121">www.wago.com/216-121</a> |
| <b>Item no.: 216-143</b><br>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        | <a href="http://www.wago.com/216-143">www.wago.com/216-143</a> |
| <b>Item no.: 216-131</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated; silver-colored   | <a href="http://www.wago.com/216-131">www.wago.com/216-131</a> |
| <b>Item no.: 216-141</b><br>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      | <a href="http://www.wago.com/216-141">www.wago.com/216-141</a> |
| <b>Item no.: 216-152</b><br>Ferrule; Sleeve for 0.34 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated   | <a href="http://www.wago.com/216-152">www.wago.com/216-152</a> |
| <b>Item no.: 216-203</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; red   | <a href="http://www.wago.com/216-203">www.wago.com/216-203</a> |
| <b>Item no.: 216-202</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray   | <a href="http://www.wago.com/216-202">www.wago.com/216-202</a> |
| <b>Item no.: 216-151</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated   | <a href="http://www.wago.com/216-151">www.wago.com/216-151</a> |
| <b>Item no.: 216-201</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated; white   | <a href="http://www.wago.com/216-201">www.wago.com/216-201</a> |
| <b>Item no.: 216-223</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; red   | <a href="http://www.wago.com/216-223">www.wago.com/216-223</a> |
| <b>Item no.: 216-241</b><br>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 | <a href="http://www.wago.com/216-241">www.wago.com/216-241</a> |
| <b>Item no.: 216-242</b><br>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 | <a href="http://www.wago.com/216-242">www.wago.com/216-242</a> |
| <b>Item no.: 216-222</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray   | <a href="http://www.wago.com/216-222">www.wago.com/216-222</a> |
| <b>Item no.: 216-221</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated; white   | <a href="http://www.wago.com/216-221">www.wago.com/216-221</a> |
| <b>Item no.: 216-243</b>   |  |

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



Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; [www.wago.com/216-243](http://www.wago.com/216-243)  
acc. to DIN 46228, Part 4/09.90; red

**Item no.: 216-263**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; [www.wago.com/216-263](http://www.wago.com/216-263)  
acc. to DIN 46228, Part 4/09.90; red

**Item no.: 216-262**

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

**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)

**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)

**Marking accessories**

## Marking strip

**Item no.: 210-332/350-202**

Marking strips; as a DIN A4 sheet; MARKED; 1-16 (240x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white [www.wago.com/210-332/350-202](http://www.wago.com/210-332/350-202)

**Item no.: 210-332/350-206**

Marking strips; as a DIN A4 sheet; MARKED; 33-48 (240x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white [www.wago.com/210-332/350-206](http://www.wago.com/210-332/350-206)

**Item no.: 210-332/350-204**

Marking strips; as a DIN A4 sheet; MARKED; 17-32 (240x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white [www.wago.com/210-332/350-204](http://www.wago.com/210-332/350-204)

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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

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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 250-120   | URL | Download |
| PCB terminal block; push-button; 1.5 mm <sup>2</sup> ; Pin spacing 3.5 mm; 20-pole; Push-in CAGE CLAMP®; 1,50 mm <sup>2</sup> ; gray |     |          |

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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

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



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

### Testing

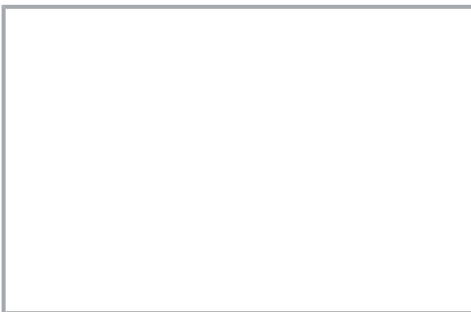


Testing with 11 mm Ø test pin, on the conductor, 250 Series – 2.5 ... 3.5 mm pin spacing.



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.

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