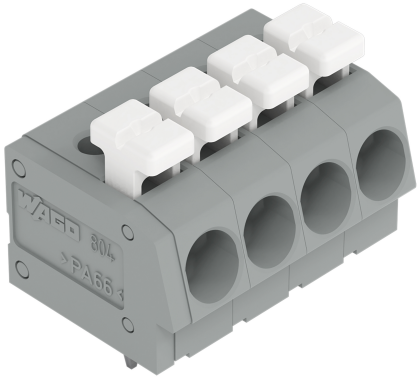
# Data Sheet | Item Number: 804-102

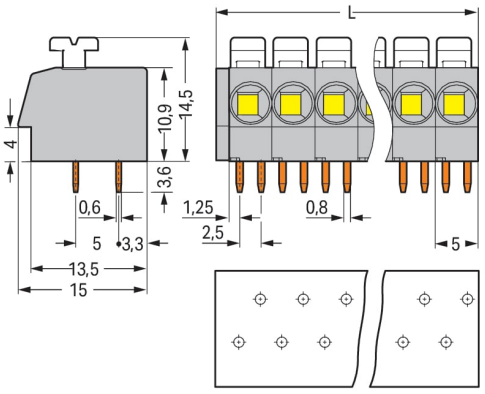
PCB terminal block; push-button; 2.5 mm²; Pin spacing 5 mm; 2-pole; Push-in CAGE CLAMP®; 2,50 mm²; gray

https://www.wago.com/804-102

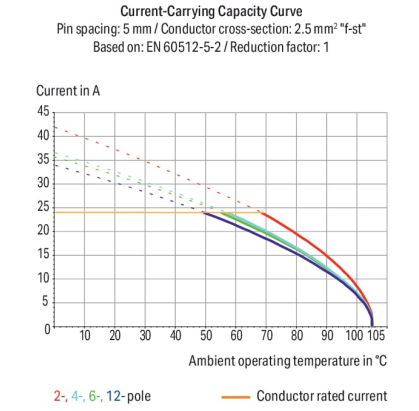


Color: gray

Similar to illustration




Dimensions in mm
L = (pole no. x pin spacing) + 1.5 mm




PCB terminal block, 804 Series, gray

Our PCB terminal block (item number 804-102) simplifies electrical installations. It is a universal connector that can be used practically anywhere, for example, as a pluggable PCB connector, panel feedthrough header, connector for rail-mount terminal blocks, or a floating connector for different mounting methods. Rated current and voltage are important parameters when choosing a PCB terminal block, as they determine the product's suitability for different applications. This product has a rated voltage of 320 V and a rated current of 24 A, making it suitable for high-load applications. Conductors can only be connected to this PCB terminal block if their strip length is between 10 mm and 11 mm. 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 any type of conductor. It allows both solid and fine-stranded conductors with ferrules to be inserted directly into the clamping point without the need for tools. The item's dimensions are 11.5 x 18.1 x 15 mm (width x height x depth). Depending on the type of conductor, this PCB terminal block is suitable for conductor cross sections ranging from 0.25 mm² to 2.5 mm². Up to two potentials / two poles can be connected to this terminal strip using two clamping points on one level. The gray housing is made of polyamide (PA66) for insulation, the clamping spring is made of chrome-nickel spring steel (CrNi), and the contacts are made of electrolytic copper (ECu). Tin is used for coating the contact surfaces. This PCB terminal block is operated with a push-button. The PCB terminal block is designed for THT soldering. The conductor is designed to be inserted into the board at a 0° angle.. The solder pins measure 0.8 x 0.6 mm in cross-section and 3.6 mm in length and are laid out over the entire terminal strip (staggered). There are two solder pins per potential.

## Notes

| | |
|---|---|
| Variants: | Other pole numbers<br>Other colors<br>Mixed-color PCB connector strips<br>10 mm pin spacing version with spacers<br>Direct marking<br>Versions for Ex i<br>Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/. |

## Electrical data

| Ratings per | IEC/EN 60664-1 | | |
|---|---|---|---|
| Overvoltage category | III | III | II |
| Pollution degree | 3 | 2 | 2 |
| Nominal voltage | 250 V | 320 V | 630 V |
| Rated surge voltage | 4 kV | 4 kV | 4 kV |
| Rated current | 24 A | 24 A | 24 A |

| Approvals per | UL 1059 | | |
|---|---|---|---|
| Use group | B | C | D |
| Rated voltage | 300 V | - | 300 V |
| Rated current | 10 A | - | 10 A |

| Approvals per | CSA | | |
|---|---|---|---|
| Use group | B | C | D |
| Rated voltage | 300 V | - | 300 V |
| Rated current | 10 A | - | 10 A |

## Connection data

| | |
|---|---|
| Clamping units | 2 |
| Total number of potentials | 2 |
| Number of connection types | 1 |
| Number of levels | 1 |

### Connection 1

| | |
|---|---|
| Connection technology | Push-in CAGE CLAMP® |
| Actuation type | Push-button |
| Solid conductor | 0.25 … 2.5 mm² / 20 … 12 AWG |
| Fine-stranded conductor | 0.25 … 2.5 mm² / 22 … 12 AWG |
| Fine-stranded conductor; with insulated ferrule | 0.25 … 1.5 mm² |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 … 2.5 mm² |
| Strip length | 10 … 11 mm / 0.39 … 0.43 inches |
| Conductor connection direction to PCB | 0 ° |
| Pole number | 2 |

## Physical data

| | |
|---|---|
| Pin spacing | 5 mm / 0.197 inches |
| Width | 11.5 mm / 0.453 inches |
| Height | 18.1 mm / 0.713 inches |
| Height from the surface | 14.5 mm / 0.571 inches |
| Depth | 15 mm / 0.591 inches |
| Solder pin length | 3.6 mm |
| Solder pin dimensions | 0.8 x 0.6 mm |
| Drilled hole diameter with tolerance | 1.1 $^{(+0.1)}$ mm |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## PCB contact

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

## Material data

| | |
|---|---|
| Note (material data) | Information on material specifications can be found here |
| Color | gray |
| Material group | I |
| Insulation material (main housing) | Polyamide (PA66) |
| Flammability class per UL94 | V0 |
| Clamping spring material | Chrome-nickel spring steel (CrNi) |
| Contact material | Electrolytic copper ($E_{Cu}$) |
| Contact Plating | Tin |
| Fire load | 0.052 MJ |
| Weight | 2.2 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 9.0 | EC002643 |
| ETIM 8.0 | EC002643 |
| PU (SPU) | 420 (105) pcs |
| Packaging type | Box |
| Country of origin | CH |
| GTIN | 4044918514934 |
| Customs tariff number | 85369010000 |

## Environmental Product Compliance

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

## Approvals / Certificates

### General approvals

| Approval | Standard | Certificate Name |
|---|---|---|
| CCA<br>DEKRA Certification B.V. | EN 60947-7-4 | NTR NL 7781 |
| CCA<br>DEKRA Certification B.V. | EN 60947-7-4 | 71-110710 |
| ENEC 15<br>UL International Germany GmbH | EN 60998 | ENEC-00096 |
| UL<br>UL International Germany GmbH | UL 1977 | E45171 |

### General approvals

| | | |
|---|---|---|
| UL<br>UL International Germany GmbH | UL 1059 | E45172 |


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## Declarations of conformity and manufacturer's declarations

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

## Downloads

### Environmental Product Compliance

**Compliance Search**

Environmental Product Compliance 804-102

### Documentation

**Additional Information**

| | | |
|---|---|---|
| Technical Section | 03.04.2019 | pdf<br>2027.26 KB |

### CAD/CAE-Data

**CAD data**

2D/3D Models 804-102

**CAE data**

EPLAN Data Portal 804-102

ZUKEN Portal 804-102

**PCB Design**

Symbol and Footprint via SamacSys 804-102

Symbol and Footprint via Ultra Librarian 804-102

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# 1 Compatible Products

## 1.1 Optional Accessories

### 1.1.1 Ferrule

#### 1.1.1.1 Ferrule



Item No.: 216-241
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white



Item No.: 216-141
Ferrule; Sleeve for 0.5 mm² / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92



Item No.: 216-242
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray

Item No.: 216-262
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



Item No.: 216-142
Ferrule; Sleeve for 0.75 mm² / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92



Item No.: 216-243
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red



Item No.: 216-263
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red



Item No.: 216-143
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92

Item No.: 216-244
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black

Item No.: 216-264
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black

Item No.: 216-284
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black



Item No.: 216-144
Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored

Item No.: 216-106
Ferrule; Sleeve for 2.5 mm² / AWG 14; uninsulated; electro-tin plated; silver-colored

### 1.1.2 Marking

#### 1.1.2.1 Marking strip

Item No.: 210-332/500-202
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



Item No.: 210-332/500-205
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

Item No.: 210-332/500-204
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



Item No.: 210-332/500-206
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

### 1.1.3 Tool

#### 1.1.3.1 Operating tool

Item No.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

Item No.: 210-657
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

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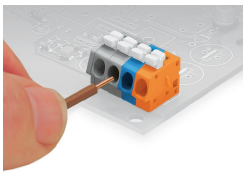
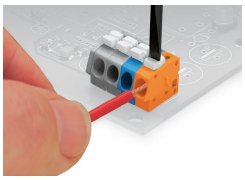
## Installation Notes

### Conductor termination

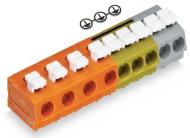


Terminating solid conductors: Simply push in stripped conductor until it hits the backstop.



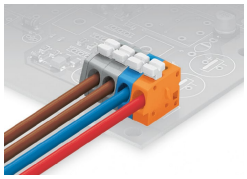
Inserting/removing fine-stranded conductors:
Open the clamping unit via push-button and insert a stripped conductor until it hits the backstop.

### Application



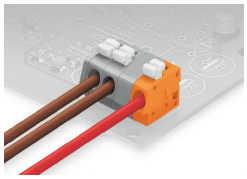
WAGO's 804 Series Terminal Strips provide “internal commoning” to meet requirements than ban routing the ground conductor over the board. This enables custom terminal strips to be commoned and marked at the factory upon request.

### Installation



Mixed-color terminal strips are available upon request.

### Installation



Terminal strips with spacer are available upon request.

### Marking


Labeling via self-adhesive marking strips or factory direct marking.

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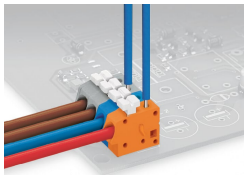
## Testing



Testing via 1 mm Ø test pin.
Touch contact with current bar.