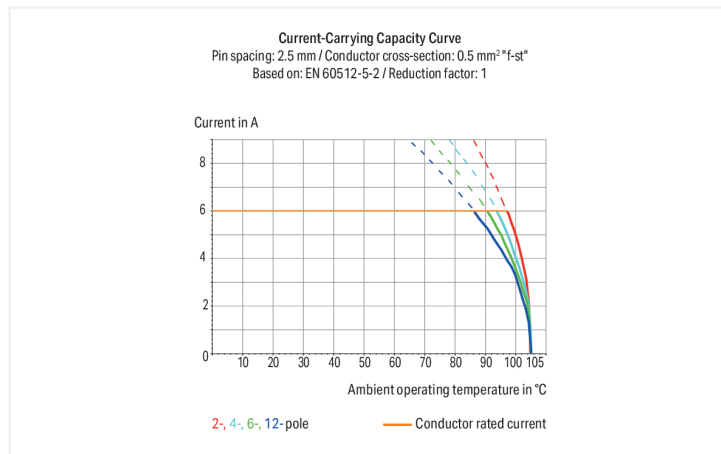


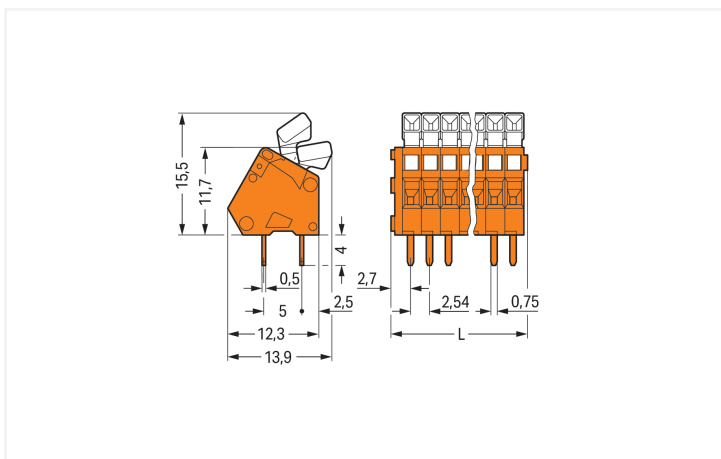
## Data Sheet | Item Number: 233-516

PCB terminal block; push-button; 0.5 mm<sup>2</sup>; Pin spacing 2.54 mm; 16-pole; CAGE CLAMP®; orange

<https://www.wago.com/233-516>



Color: ■ orange



Dimensions in mm

L = (pole no. x pin spacing) + 2.3 mm

### PCB terminal block, 233 Series, CAGE CLAMP®

Connect conductors quickly and easily with this PCB terminal block (item number 233-516). It is a universal connector that can be used practically anywhere, e.g., as a pluggable PCB connector, panel feedthrough header, connector for rail-mount terminal blocks, or a floating connector for different mounting methods. Ensure that the strip lengths are between 5 and 6 mm when connecting conductors to this PCB terminal block. This product incorporates one conductor terminal and utilizes CAGE CLAMP®. Our renowned universal connection known as CAGE CLAMP® leads the way when it comes to connection technology and electrical interconnections. The item's dimensions are (42.94 x 19.5 x 13.9) mm (width x height x depth). Depending on the conductor type, this PCB terminal block is designed for conductor cross sections ranging from 0.08 mm<sup>2</sup> to 0.5 mm<sup>2</sup>. The contact surface is coated with tin. This PCB terminal block is operated with a push-button. The PCB terminal block is designed for THT soldering. Insert the conductor into the board at a 30° angle..

## Notes

|                   |  |
|-------------------|--|
| Variants:<br><br> | 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 60664-1 |        |        | Approvals per | UL 1059 |   |   |
|---------------------------------|----------------|--------|--------|---------------|---------|---|---|
| Overvoltage category            | III            | III    | II     | Use group     | B       | C | D |
| Pollution degree                | 3              | 2      | 2      | Rated voltage | 150 V   | - | - |
| Nominal voltage                 | 63 V           | 160 V  | 320 V  | Rated current | 4 A     | - | - |
| Rated impulse withstand voltage | 2.5 kV         | 2.5 kV | 2.5 kV |               |         |   |   |
| Rated current                   | 6 A            | 6 A    | 6 A    |               |         |   |   |

| Approvals per | CSA   |   |   |
|---------------|-------|---|---|
| Use group     | B     | C | D |
| Rated voltage | 150 V | - | - |
| Rated current | 4 A   | - | - |

## Connection Data

|                            |    |   |   |
|----------------------------|----|---|---|
| Clamping units             | 16 | <b>Connection 1</b>                               |   |
| Total number of potentials | 16 | Connection technology                             | CAGE CLAMP®   |
| Number of connection types | 1  | Actuation type                                    | Push-button   |
| Number of levels           | 1  | 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                                       | 16  |

## Physical data

|                         |                          |
|-------------------------|--------------------------|
| Pin spacing             | 2.54 mm / 0.1 inches     |
| Width                   | 42.94 mm / 1.691 inches  |
| Height                  | 19.5 mm / 0.768 inches   |
| Height from the surface | 15.5 mm / 0.61 inches    |
| Depth                   | 13.9 mm / 0.547 inches   |
| Solder pin length       | 4 mm                     |
| Solder pin dimensions   | 0.5 x 0.75 mm            |
| !                       | 1.1 <sup>(±0.1)</sup> mm |

### 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)               | <a href="#">Information on material specifications can be found here</a> |
| Color                              | orange   |
| 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 <sub>cu</sub> )                                   |
| Contact Plating                    | Tin  |
| Fire load                          | 0.148 MJ   |
| Weight                             | 6.5 g  |

### Environmental requirements

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

### Commercial data

|                       |                                |
|-----------------------|--------------------------------|
| Product Group         | 4 (Printed Circuit Connectors) |
| PU (SPU)              | 100 (25) pcs                   |
| Packaging type        | Box                            |
| Country of origin     | CH                             |
| GTIN                  | 4045454050528                  |
| Customs tariff number | 85369010000                    |

### Product Classification

|             |                      |
|-------------|----------------------|
| UNSPSC      | 39121409             |
| eCl@ss 10.0 | 27-44-04-01          |
| eCl@ss 9.0  | 27-44-04-01          |
| ETIM 9.0    | EC002643             |
| ETIM 10.0   | EC002643             |
| ECCN        | NO US CLASSIFICATION |

### Environmental Product Compliance

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

### Approvals / Certificates

#### General approvals



| Approval                        | Standard     | Certificate Name |
|---------------------------------|--------------|------------------|
| CCA<br>DEKRA Certification B.V. | EN 60998     | NTR NL 6946      |
| CCA<br>DEKRA Certification B.V. | EN 60998     | 2153951.01       |
| CCA<br>DEKRA Certification B.V. | EN 60947-7-4 | NTR NL 7786      |

#### General approvals

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

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 | -        | -                |

Approvals for marine applications



| Approval                           | Standard  | Certificate Name |
|------------------------------------|-----------|------------------|
| ABS<br>American Bureau of Shipping | -         | 24-0095975-PDA   |
| BV<br>Bureau Veritas S.A.          | IEC 60998 | 11915/E0 BV      |
| DNV<br>DNV GL SE                   | -         | TAE000016Z       |

Downloads

Environmental Product Compliance

| Compliance Search  |
|--|
| Environmental Product Compliance 233-516 <a href="#">↓</a> |

Documentation

| Additional Information |            |                   |                   |
|------------------------|------------|-------------------|-------------------|
| Technical Section      | 03.04.2019 | pdf<br>2027.26 KB | <a href="#">↓</a> |

CAD/CAE-Data

| CAD data                               |
|--|
| 2D/3D Models 233-516 <a href="#">↓</a> |

| CAE data                                    |
|---|
| EPLAN Data Portal 233-516 <a href="#">↓</a> |
| ZUKEN Portal 233-516 <a href="#">↓</a>      |

PCB Design

|  |
|--|
| Symbol and Footprint via SamacSys 233-516 <a href="#">↓</a>        |
| Symbol and Footprint via Ultra Librarian 233-516 <a href="#">↓</a> |

## 1 Compatible Products

### 1.1 Optional Accessories

#### 1.1.1 Ferrule

##### 1.1.1.1 Ferrule



**Item No.: 216-301**

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

**Item No.: 216-321**

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

**Item No.: 216-151**

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

**Item No.: 216-131**

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

#### 1.1.2 Marking

##### 1.1.2.1 Marking strip



**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

**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

**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

**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



**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

**Item No.: 210-331/254-204**

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

**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

**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

#### 1.1.3 Tool

##### 1.1.3.1 Operating tool



**Item No.: 210-719**

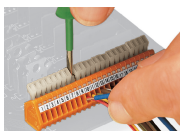
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

**Item No.: 210-648**

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

## Installation Notes

### Conductor termination



Inserting/removing a conductor.

Nominal cross-section: 0.5 mm<sup>2</sup> (20 AWG), 0.75 mm<sup>2</sup> (18 AWG) only in every other position

Marking



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