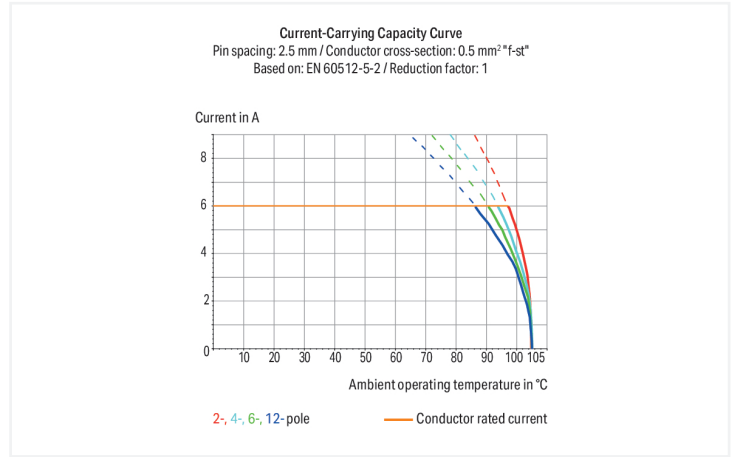
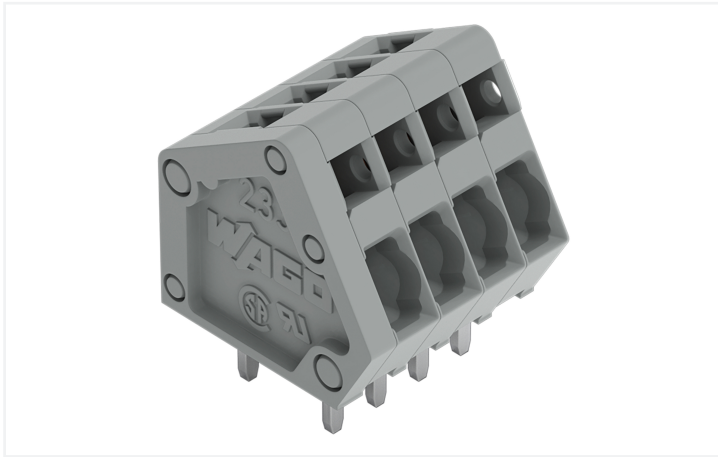


# Data Sheet | Item Number: 233-106

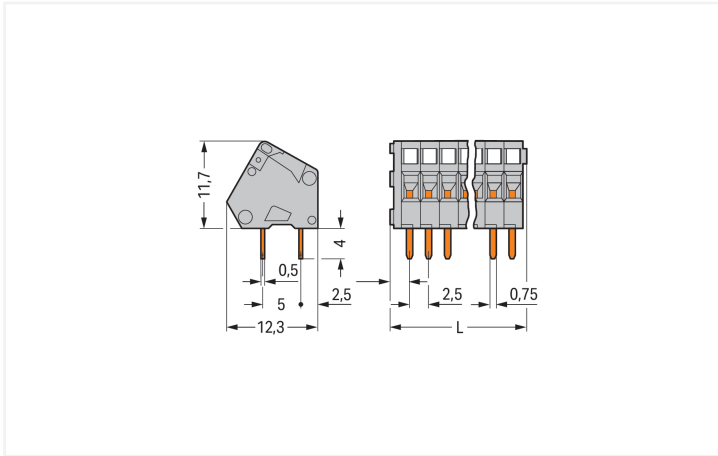
PCB terminal block; 0.5 mm<sup>2</sup>; Pin spacing 2.5 mm; 6-pole; CAGE CLAMP®; gray

<https://www.wago.com/233-106>



Color: ■ gray

Similar to illustration



Dimensions in mm

$L = (\text{pole no.} \times \text{pin spacing}) + 2.3 \text{ mm}$

## PCB terminal block, 233 Series, with 2.5 mm pin spacing

Quick and easy connections are guaranteed with this PCB terminal block (item number 233-106). You can rely on tried and tested safety with these PCB terminal blocks, perfect for a wide variety of applications when designing your devices. Conductors should only be connected to this PCB terminal block if their strip length is between 5 and 6 mm. This product features one conductor terminal and utilizes CAGE CLAMP®. Our highly-rated and maintenance-free CAGE CLAMP® connection makes it easy to connect all conductor types without having to prepare the conductor. For example, you don't need to crimp ferrules. The dimensions are (17.3 x 15.7 x 12.1) mm (width x height x depth). Depending on the conductor type, this PCB terminal block is suitable 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. An operating tool is used to operate this PCB terminal block. The PCB terminal block is designed for THT soldering. The conductor is designed to be inserted at an angle of 30°..

## 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 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             | 6 | <b>Connection 1</b>                               |   |
| Total number of potentials | 6 | Connection technology                             | CAGE CLAMP®   |
| Number of connection types | 1 | Actuation type                                    | Operating tool  |
| 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                                       | 6   |

## Physical data

|                         |                          |
|-------------------------|--------------------------|
| Pin spacing             | 2.5 mm / 0.098 inches    |
| Width                   | 17.3 mm / 0.681 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            |
| !                       | 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                              | 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 <sub>cu</sub> )                                   |
| Contact Plating                    | Tin  |
| Fire load                          | 0.028 MJ   |
| Weight                             | 2.1 g  |

### Environmental requirements

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

### Commercial data

|                       |                                |
|-----------------------|--------------------------------|
| Product Group         | 4 (Printed Circuit Connectors) |
| PU (SPU)              | 280 (70) pcs                   |
| Packaging type        | Box                            |
| Country of origin     | CH                             |
| GTIN                  | 4045454049188                  |
| 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    |
| DNV<br>DNV GL SE                   | -        | TAE000016Z        |
| PRS<br>Polski Rejestr Statków      | -        | TE/1095/880590/23 |

Downloads

Environmental Product Compliance

| Compliance Search  |
|--|
| Environmental Product Compliance 233-106 <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 233-106 <a href="#">↓</a> |

| CAE data                                    |
|---|
| EPLAN Data Portal 233-106 <a href="#">↓</a> |
| ZUKEN Portal 233-106 <a href="#">↓</a>      |

PCB Design

|  |
|--|
| Symbol and Footprint via SamacSys 233-106 <a href="#">↓</a>        |
| Symbol and Footprint via Ultra Librarian 233-106 <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

**Item No.: 210-647**

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

**Item No.: 233-335**

Operating tool; green



**Item No.: 233-331**

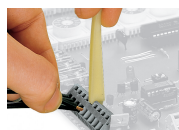
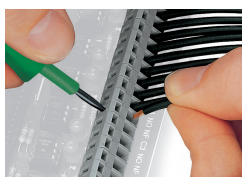
Operating tool; insulated; yellow

**Item No.: 233-332**

Operating tool; made of insulating material; white

## 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

Inserting a conductor via operating tool.

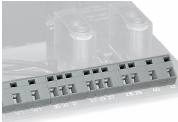
Compared to standard screwdrivers, these operating tools are far more convenient for wiring PCB terminal strips at factory.

## 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

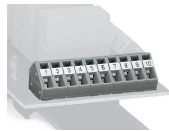


Combining PCB terminal blocks with different pin spacing.

## Marking



Optional: Labeling via factory direct marking.



Optional: Labeling with self-adhesive marking strips possible