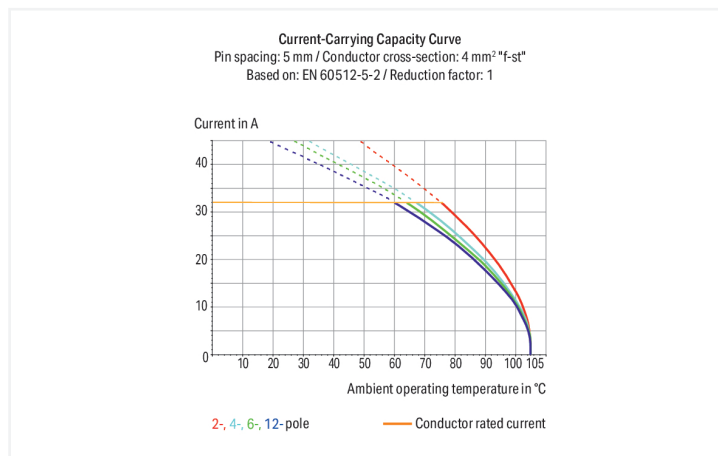


## Data Sheet | Item Number: 745-3112

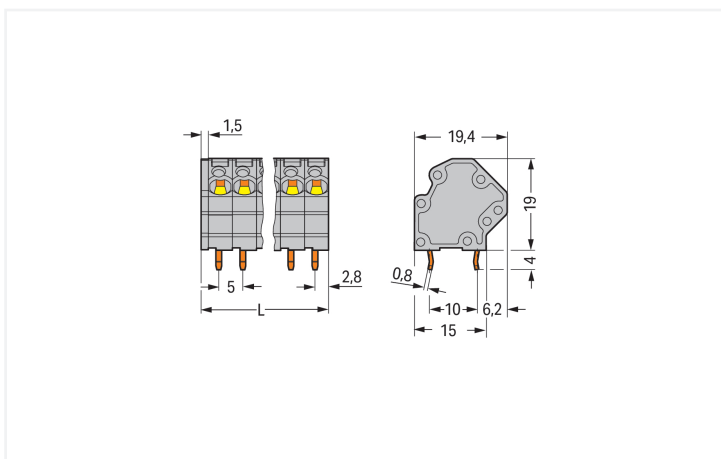
PCB terminal block; 4 mm<sup>2</sup>; Pin spacing 5 mm; 12-pole; CAGE CLAMP®; gray

<https://www.wago.com/745-3112>



Color: ■ gray

Similar to illustration



Dimensions in mm

$L = (\text{pole no.} \times \text{pin spacing}) + 1.5 \text{ mm}$

### PCB terminal block, 745 Series, 45 °conductor entry to board

This PCB terminal block (item number 745-3112) is designed for quick and easy connections. 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. Strip lengths must be between 8 and 9 mm when connecting conductors to this PCB terminal block. Featuring one conductor terminal along with CAGE CLAMP®, this connector delivers reliable performance. Our CAGE CLAMP® connection offers a convenient and maintenance-free way to connect all types of conductors. You do not need to prepare the conductor in any way, such as crimping ferrules. Dimensions: (61.5 x 23 x 19.4) mm (width x height x depth). This PCB terminal block is suitable for conductor cross sections ranging from 0.08 mm<sup>2</sup> to 4 mm<sup>2</sup>.

The contact surface is coated with tin. An operating tool is used to operate this PCB terminal block. THT is used to assemble the PCB terminal block. Insert the conductor into the board at a 45° angle.

## Notes

|           |   |
|-----------|---|
| Variants: | Other pole numbers<br>Versions for Ex e II and Ex i<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 |       |       |
|---------------------------------|----------------|-------|-------|
| Overvoltage category            | III            | III   | II    |
| Pollution degree                | 3              | 2     | 2     |
| Nominal voltage                 | 320 V          | 320 V | 630 V |
| Rated impulse withstand voltage | 4 kV           | 4 kV  | 4 kV  |
| Rated current                   | 32 A           | 32 A  | 32 A  |

| Approvals per | UL 1059 |   |       |
|---------------|---------|---|-------|
| Use group     | B       | C | D     |
| Rated voltage | 300 V   | - | 300 V |
| Rated current | 20 A    | - | 10 A  |

| Approvals per | CSA   |   |       |
|---------------|-------|---|-------|
| Use group     | B     | C | D     |
| Rated voltage | 300 V | - | 300 V |
| Rated current | 20 A  | - | 10 A  |

## Connection Data

|                            |    |
|----------------------------|----|
| Clamping units             | 12 |
| Total number of potentials | 12 |
| Number of connection types | 1  |
| Number of levels           | 1  |

| Connection 1                                      |  |
|---|--|
| Connection technology                             | CAGE CLAMP®                                |
| Actuation type                                    | Operating tool                             |
| Solid conductor                                   | 0.08 ... 4 mm <sup>2</sup> / 28 ... 12 AWG |
| Fine-stranded conductor                           | 0.08 ... 4 mm <sup>2</sup> / 28 ... 12 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 2.5 mm <sup>2</sup>               |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 2.5 mm <sup>2</sup>               |
| Strip length                                      | 8 ... 9 mm / 0.31 ... 0.35 inches          |
| Conductor connection direction to PCB             | 45 °                                       |
| Pole number                                       | 12   |

## Physical data

|                         |                          |
|-------------------------|--------------------------|
| Pin spacing             | 5 mm / 0.197 inches      |
| Width                   | 61.5 mm / 2.421 inches   |
| Height                  | 23 mm / 0.906 inches     |
| Height from the surface | 19 mm / 0.748 inches     |
| Depth                   | 19.4 mm / 0.764 inches   |
| Solder pin length       | 4 mm                     |
| Solder pin dimensions   | 0.8 x 1.2 mm             |
| !                       | 1.5 <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                          | 0.322 MJ   |
| Weight                             | 21.5 g   |

### Environmental requirements

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

### Commercial data

|                       |                                |
|-----------------------|--------------------------------|
| Product Group         | 4 (Printed Circuit Connectors) |
| PU (SPU)              | 48 pcs                         |
| Packaging type        | Box                            |
| Country of origin     | PL                             |
| GTIN                  | 4045454153762                  |
| 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



#### General approvals

|  |         |        |
|--|---------|--------|
| cURus<br>Underwriters Laboratories<br>Inc. | UL 1059 | E45172 |
|--|---------|--------|

| Approval                        | Standard      | Certificate Name |
|---------------------------------|---------------|------------------|
| CCA<br>DEKRA Certification B.V. | EN 60947      | NTR NL-7095      |
| CCA<br>DEKRA Certification B.V. | EN 60947      | 71-112275        |
| CSA<br>DEKRA Certification B.V. | C22.2 No. 158 | 1604421          |

Declarations of conformity and manufacturer's declarations

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

Downloads

Environmental Product Compliance

| Compliance Search  |
|--|
| Environmental Product<br>Compliance 745-3112 <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<br>745-3112 <a href="#">↓</a> |

| CAE data  |
|---|
| EPLAN Data Portal<br>745-3112 <a href="#">↓</a> |

|  |
|--|
| ZUKEN Portal<br>745-3112 <a href="#">↓</a> |
|--|

PCB Design

|  |
|--|
| Symbol and Footprint<br>via SamacSys<br>745-3112 <a href="#">↓</a> |
|--|

|   |
|---|
| Symbol and Footprint<br>via Ultra Librarian<br>745-3112 <a href="#">↓</a> |
|---|

## 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 mm<sup>2</sup> / 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 mm<sup>2</sup> / 20 AWG; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92



**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



**Item No.: 216-262**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; un-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 mm<sup>2</sup> / 18 AWG; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92



**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



**Item No.: 216-263**

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



**Item No.: 216-244**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; un-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 mm<sup>2</sup> / AWG 16; un-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 mm<sup>2</sup> / AWG 16; un-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 mm<sup>2</sup> / AWG 16; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored



**Item No.: 216-246**

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue



**Item No.: 216-266**

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue



**Item No.: 216-286**

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue



**Item No.: 216-106**

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; un-insulated; 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 Test and measurement

##### 1.1.3.1 Testing accessories



**Item No.: 210-136**

Test plug; 2 mm Ø; with 500 mm cable; red

## 1.1.4 Tool

### 1.1.4.1 Operating tool

**Item No.: 210-658**

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

**Item No.: 210-720**

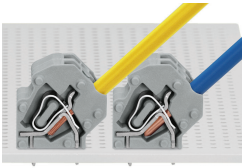
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

**Item No.: 210-657**

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

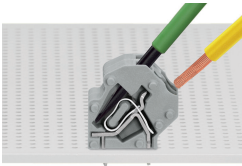
## Installation Notes

### Installation



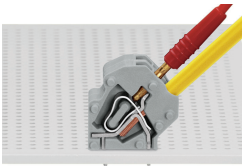
Saving space: two PCB terminal strips arranged in a row

## Conductor termination



Inserting a conductor via 3.5 mm screwdriver.

## Testing



Testing with 2 mm Ø test plug.