

## Data Sheet | Item Number: 745-203

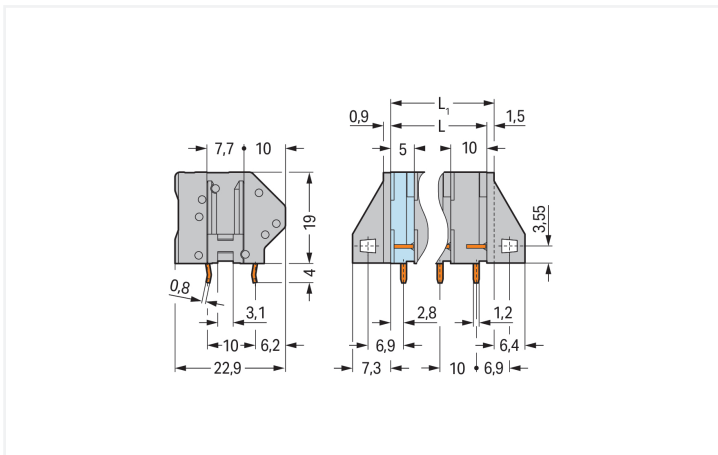
PCB terminal block; 4 mm<sup>2</sup>; Pin spacing 10 mm; 3-pole; CAGE CLAMP®; commoning option; gray

<https://www.wago.com/745-203>



Color: ■ gray

Similar to illustration



Dimensions in mm

$L = (\text{pole no.} - 1) \times \text{pin spacing} + 5 \text{ mm}$   
 $L_1 = L + 1.5 \text{ mm} \triangleq \text{version without mounting flange}$

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

This PCB terminal block (item number 745-203) is designed for quick and simple connections. You can rely on trusted safety with these PCB terminal blocks, perfect for a wide variety of applications when designing your devices. Ensure that the strip lengths are between 8 and 9 mm when connecting conductors to this PCB terminal block. This product incorporates one conductor terminal and utilizes CAGE CLAMP®. Our celebrated universal connection known as CAGE CLAMP® is industry-leading when it comes to connection technology and electrical interconnections. The item's dimensions are (26.5 x 23 x 22.9) mm (width x height x depth). Depending on the type of conductor, this PCB terminal block is ideal 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. The PCB terminal block is designed for THT soldering. The conductor is designed to be inserted 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>Versions with mounting flanges<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 | 300 V   | 150 V | 300 V |
| Nominal voltage                 | 630 V          | 1000 V | 1000 V | Rated current | 20 A    | 20 A  | 10 A  |
| Rated impulse withstand voltage | 8 kV           | 8 kV   | 8 kV   |               |         |       |       |
| Rated current                   | 32 A           | 32 A   | 32 A   |               |         |       |       |

| Approvals per | CSA   |       |       |
|---------------|-------|-------|-------|
| Use group     | B     | C     | D     |
| Rated voltage | 300 V | 150 V | 300 V |
| Rated current | 20 A  | 20 A  | 10 A  |

## Connection Data

|                            |   |   |  |
|----------------------------|---|---|--|
| Clamping units             | 3 | <b>Connection 1</b>                               |  |
| Total number of potentials | 3 | Connection technology                             | CAGE CLAMP®                                |
| Number of connection types | 1 | Actuation type                                    | Operating tool                             |
| Number of levels           | 1 | Solid conductor                                   | 0.08 ... 4 mm <sup>2</sup> / 28 ... 12 AWG |
| Number of jumper slots     | 1 | 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                                       | 3  |

## Physical data

|                         |                          |
|-------------------------|--------------------------|
| Pin spacing             | 10 mm / 0.394 inches     |
| Width                   | 26.5 mm / 1.043 inches   |
| Height                  | 23 mm / 0.906 inches     |
| Height from the surface | 19 mm / 0.748 inches     |
| Depth                   | 22.9 mm / 0.902 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                          | 0.169 MJ   |
| Weight                             | 8.5 g  |

### Environmental requirements

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

### Commercial data

|                       |                                |
|-----------------------|--------------------------------|
| Product Group         | 4 (Printed Circuit Connectors) |
| PU (SPU)              | 100 pcs                        |
| Packaging type        | Box                            |
| Country of origin     | PL                             |
| GTIN                  | 4044918671316                  |
| 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

|   |         |        |
|---|---------|--------|
| UR<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 Conformity<br>WAGO GmbH & Co. KG | -        | -                |
| UK-Declaration of Conformity<br>WAGO GmbH & Co. KG | -        | -                |

**Downloads**

**Environmental Product Compliance**

| Compliance Search  |
|--|
| Environmental Product Compliance 745-203 <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 745-203 <a href="#">↓</a> |

| CAE data                                    |
|---|
| EPLAN Data Portal 745-203 <a href="#">↓</a> |
| ZUKEN Portal 745-203 <a href="#">↓</a>      |

**PCB Design**

|  |
|--|
| Symbol and Footprint via SamacSys 745-203 <a href="#">↓</a>        |
| Symbol and Footprint via Ultra Librarian 745-203 <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; 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; uninsulated; 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; 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; 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 mm<sup>2</sup> / 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 mm<sup>2</sup> / 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 mm<sup>2</sup> / 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 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; 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; 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; 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 Jumper

1.1.2.1 Jumper



**Item No.: 745-283**

Jumper; 3-way; unplated; silver-colored



**Item No.: 745-284**

Jumper; 4-way; unplated; silver-colored



**Item No.: 745-285**

Jumper; 5-way; unplated; silver-colored



**Item No.: 745-281**

Jumper; silver-colored

1.1.3 Marking

1.1.3.1 Marker



**Item No.: 2009-145/000-006**

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue



**Item No.: 2009-145/000-007**

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray



**Item No.: 2009-145/000-023**

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green



**Item No.: 2009-145/000-012**

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange



**Item No.: 2009-145/000-005**

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red



**Item No.: 2009-145/000-024**

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet



**Item No.: 2009-145**

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white



**Item No.: 2009-145/000-002**

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow



**Item No.: 248-501/000-006**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue



**Item No.: 248-501/000-007**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray



**Item No.: 248-501/000-023**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green



**Item No.: 248-501/000-017**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green

1.1.3.1 Marker



**Item No.: 248-501/000-012**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange



**Item No.: 248-501/000-005**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red



**Item No.: 248-501/000-024**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet



**Item No.: 248-501**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white



**Item No.: 248-501/000-002**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow



**Item No.: 793-5501/000-006**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; blue



**Item No.: 793-5501/000-007**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; gray



**Item No.: 793-5501/000-023**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; green



**Item No.: 793-5501/000-017**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; light green



**Item No.: 793-5501/000-012**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; orange



**Item No.: 793-5501/000-005**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; red



**Item No.: 793-5501/000-024**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; violet



**Item No.: 793-5501**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white



**Item No.: 793-5501/000-002**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; yellow



**Item No.: 793-501/000-006**  
WMB marking card; as card; not stretchable; plain; snap-on type; blue



**Item No.: 793-501/000-007**  
WMB marking card; as card; not stretchable; plain; snap-on type; gray



**Item No.: 793-501/000-023**  
WMB marking card; as card; not stretchable; plain; snap-on type; green



**Item No.: 793-501/000-017**  
WMB marking card; as card; not stretchable; plain; snap-on type; light green



**Item No.: 793-501/000-012**  
WMB marking card; as card; not stretchable; plain; snap-on type; orange



**Item No.: 793-501/000-005**  
WMB marking card; as card; not stretchable; plain; snap-on type; red



**Item No.: 793-501/000-024**  
WMB marking card; as card; not stretchable; plain; snap-on type; violet



**Item No.: 793-501**  
WMB marking card; as card; not stretchable; plain; snap-on type; white



**Item No.: 793-501/000-002**  
WMB marking card; as card; not stretchable; plain; snap-on type; yellow



**Item No.: 2009-115/000-006**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue



**Item No.: 2009-115/000-007**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray



**Item No.: 2009-115/000-023**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green



**Item No.: 2009-115/000-017**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green



**Item No.: 2009-115/000-012**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange



**Item No.: 2009-115/000-024**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet



**Item No.: 2009-115**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white



**Item No.: 2009-115/000-002**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

1.1.4 Test and measurement

1.1.4.1 Testing accessories



**Item No.: 210-136**  
Test plug; 2 mm Ø; with 500 mm cable; red

## 1.1.5 Tool

### 1.1.5.1 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

### Conductor termination



Inserting/removing a conductor via 5.5 mm screwdriver – 745 Series, 16 mm<sup>2</sup>.

## Marking



Marking via Mini-WSB and WMB markers or factory direct marking – 745 Series.

## Testing



Testing with test plug – 745 Series.

## Commoning



Inserting a comb-style jumper bar.



To insert a comb-style jumper bar, push it down using a screwdriver until it hits the backstop – 745 Series.



To remove the jumper bar, lift it up using a screwdriver – 745 Series.