

# Data sheet | Item number: 745-3112

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



745-3112

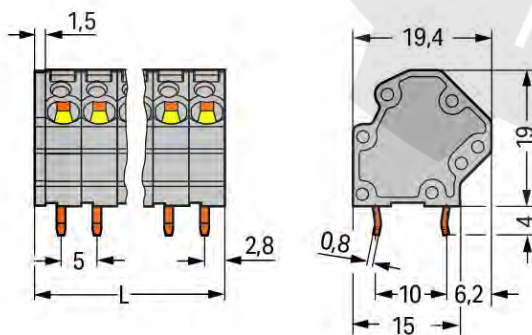
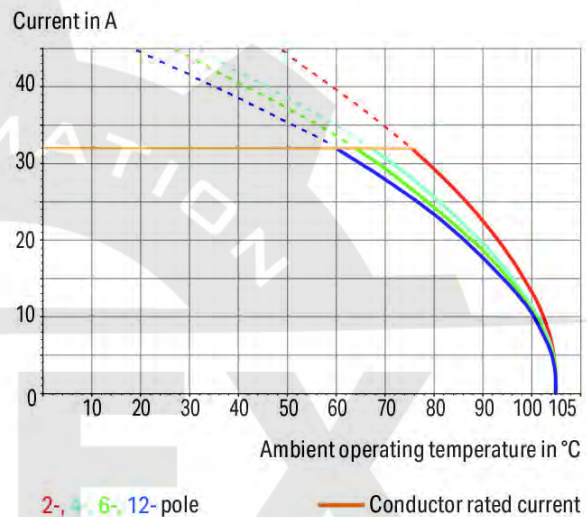


RoHS  
Compliant

BOMcheck.net

Color: ■

**Current-Carrying Capacity Curve**  
Pin spacing: 5 mm / Conductor cross-section: 4 mm<sup>2</sup> "f-st"  
Based on: EN 60512-5-2 / Reduction factor: 1



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

## Item description

- PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- Versions with Ex approval
- Mixed-color PCB terminal strips from factory
- Space-saving configuration of terminal strips when placed behind each other
- Custom color combinations
- Double solder pins for high mechanical stability
- Integrated testing tap

## Data

### Electrical data

#### Ratings per IEC/EN 60664-1

|                                 |       |
|---------------------------------|-------|
| Rated voltage (III / 3)         | 320 V |
| Rated impulse voltage (III / 3) | 4 kV  |
| Rated voltage (III / 2)         | 320 V |
| Rated impulse voltage (III / 2) | 4 kV  |
| Rated voltage (II / 2)          | 630 V |
| Rated impulse voltage (II / 2)  | 4 kV  |
| Rated current                   | 32 A  |

#### Approvals per UL 1059

|                                |       |
|--------------------------------|-------|
| Rated voltage UL (Use Group B) | 300 V |
| Rated current UL (Use Group B) | 20 A  |
| Rated voltage UL (Use Group D) | 300 V |
| Rated current UL (Use Group D) | 10 A  |

#### Approvals per CSA

|                                 |       |
|---------------------------------|-------|
| Rated voltage CSA (Use Group B) | 300 V |
| Rated current CSA (Use Group B) | 20 A  |
| Rated voltage CSA (Use Group D) | 300 V |
| Rated current CSA (Use Group D) | 10 A  |

### Connection data

|                                                          |                                            |
|----------------------------------------------------------|--------------------------------------------|
| 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 ferrule with plastic collar | 0.25 ... 2.5 mm <sup>2</sup>               |

|                                                             |                                 |
|-------------------------------------------------------------|---------------------------------|
| Fine-stranded conductor with ferrule without plastic collar | 0.25 ... 2.5 mm <sup>2</sup>    |
| Strip length                                                | 8 ... 9 mm / 0.31 ... 0.35 inch |
| Conductor entry angle to the PCB                            | 45°                             |
| No. of poles                                                | 12                              |
| Total number of connection points                           | 12                              |
| Total number of potentials                                  | 12                              |
| Number of connection types                                  | 1                               |
| Number of levels                                            | 1                               |

### Geometrical Data

|                                   |                                |
|-----------------------------------|--------------------------------|
| Pin spacing                       | 5 mm / 0.197 inch              |
| Width                             | 61.5 mm / 2.421 inch           |
| Height                            | 23 mm / 0.906 inch             |
| Height from the surface           | 19 mm / 0.748 inch             |
| Depth                             | 19.4 mm / 0.764 inch           |
| Solder pin length                 | 4 mm                           |
| Solder pin dimensions             | 0.8 x 1.2 mm                   |
| Drilled hole diameter (tolerance) | 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

|                             |                                        |
|-----------------------------|----------------------------------------|
| Color                       | gray                                   |
| Material group              | I                                      |
| Insulating material         | Polyamide 66 (PA 66)                   |
| Flammability class per UL94 | V0                                     |
| Clamping spring material    | Chrome nickel spring steel (CrNi)      |
| Contact material            | Electrolytic copper (E <sub>Cu</sub> ) |
| Contact plating             | tin-plated                             |
| Fire load                   | 0.322 MJ                               |
| Weight                      | 21.528 g                               |

### Environmental Requirements

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

## Commercial data

|                    |                     |
|--------------------|---------------------|
| Product Group      | 4 (Printed Circuit) |
| Country of origin  | PL                  |
| GTIN               | 4045454153762       |
| Customs Tariff No. | 85369010000         |

## Approvals / Certificates

### Country specific Approvals

| Logo                                                                              | Approval                        | Additional Approval Text | Certificate name |
|-----------------------------------------------------------------------------------|---------------------------------|--------------------------|------------------|
|   | CCA<br>DEKRA Certification B.V. | EN 60947                 | NTR NL-7095      |
|   | CCA<br>DEKRA Certification B.V. | EN 60947                 | 2160584.15       |
|  | CSA<br>DEKRA Certification B.V. | C22.2 No. 158            | 1604421          |

### UL-Approvals

| Logo                                                                               | Approval                                | Additional Approval Text | Certificate name |
|------------------------------------------------------------------------------------|-----------------------------------------|--------------------------|------------------|
|  | cURus<br>Underwriters Laboratories Inc. | UL 1059                  | E45172<br>sec6   |

## Compatible products

### check

|                                                                                    |                                                             |         |
|------------------------------------------------------------------------------------|-------------------------------------------------------------|---------|
|  | Item no.: 210-136<br>Test plug; 2 mm Ø; with 500 mm cable   | 210-136 |
|  | Item no.: 210-137<br>Test plug; 2.3 mm Ø; with 500 mm cable | 210-137 |

### Marking accessories

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 210-332  
/500-202

**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 210-332  
/500-204

**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 210-332  
/500-205

**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 210-332  
/500-206

## tools



**Item no.: 210-657**  
Operating tool with partially insulated shaft; Blade (3.5 x 0.5) mm; short 210-657



**Item no.: 210-658**  
Operating tool with partially insulated shaft; Blade (3.5 x 0.5) mm; short; angled 210-658



**Item no.: 210-720**  
Operating tool with partially insulated shaft; Type 2, blade (3.5 x 0.5) mm 210-720

## ferrule



**Item no.: 216-106**  
Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; uninsulated; electro-tin plated 216-106



**Item no.: 216-121**  
Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated 216-121



**Item no.: 216-122**  
Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated 216-122



**Item no.: 216-123**  
Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated 216-123



**Item no.: 216-124**  
Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated 216-124



**Item no.: 216-131**  
Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated 216-131



**Item no.: 216-132**  
Ferrule; Sleeve for 0.34 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated 216-132



**Item no.: 216-141**  
Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92 216-141



**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 1/08.92 216-142



**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 1/08.92 216-143

**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                            | 216-144 |
|   | <b>Item no.: 216-151</b><br>Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated                                                                       | 216-151 |
|   | <b>Item no.: 216-152</b><br>Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated                                                                       | 216-152 |
|    | <b>Item no.: 216-221</b><br>Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated                                                                          | 216-221 |
|    | <b>Item no.: 216-222</b><br>Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated                                                                         | 216-222 |
|    | <b>Item no.: 216-223</b><br>Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated                                                                            | 216-223 |
|    | <b>Item no.: 216-224</b><br>Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated                                                                          | 216-224 |
|    | <b>Item no.: 216-241</b><br>Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90  | 216-241 |
|    | <b>Item no.: 216-242</b><br>Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90 | 216-242 |
|   | <b>Item no.: 216-243</b><br>Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90    | 216-243 |
|  | <b>Item no.: 216-244</b><br>Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90  | 216-244 |
|  | <b>Item no.: 216-246</b><br>Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90  | 216-246 |
|  | <b>Item no.: 216-262</b><br>Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90 | 216-262 |
|  | <b>Item no.: 216-263</b><br>Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90    | 216-263 |
|  | <b>Item no.: 216-264</b><br>Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90  | 216-264 |
|  | <b>Item no.: 216-266</b><br>Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90  | 216-266 |
|  | <b>Item no.: 216-284</b><br>Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90  | 216-284 |
|  | <b>Item no.: 216-286</b><br>Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90  | 216-286 |



Item no.: 216-321

216-321

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

Item no.: 216-322

216-322

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated

## Downloads

## CAD/CAE - Smart Data

## CAD data

| 3D Download 745-3112                                                                                          |                      | URL            | Download |
|---------------------------------------------------------------------------------------------------------------|----------------------|----------------|----------|
| <b>PCB libraries</b>                                                                                          |                      |                |          |
| DesignSpark Library for WAGO PCB Terminal Blocks<br>Compatible with DesignSpark PCB Version 4.x or higher     | 2.1<br>Oct 6, 2014   | zip<br>22.5 MB | Download |
| EAGLE Library for WAGO PCB Terminal Blocks<br>Compatible with EAGLE PCB Design Software Version 6.x or higher | 2.1<br>Oct 6, 2014   | zip<br>23.9 MB | Download |
| TARGET Library for WAGO PCB Terminal Blocks<br>Compatible with TARGET PCB Design Software Version 17.x        | 1.1.0<br>Oct 6, 2014 | zip<br>27.1 MB | Download |

Subject to changes.