

# Data sheet | Item number: 737-853

Triple-deck PCB terminal block; 2.5 mm<sup>2</sup>; Pin spacing 10.16 mm; 3 x 3-pole;  
CAGE CLAMP®



737-853

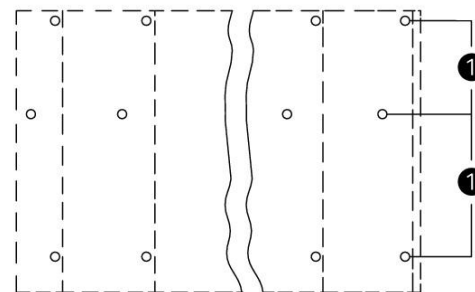
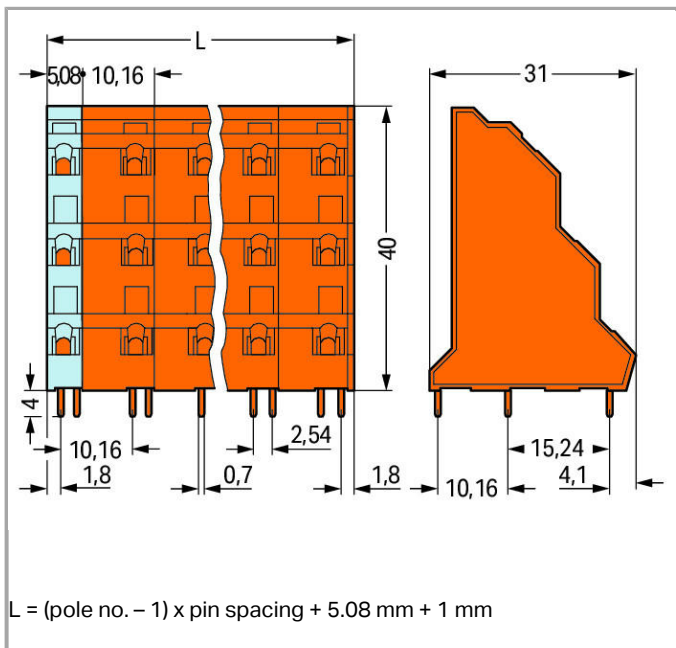
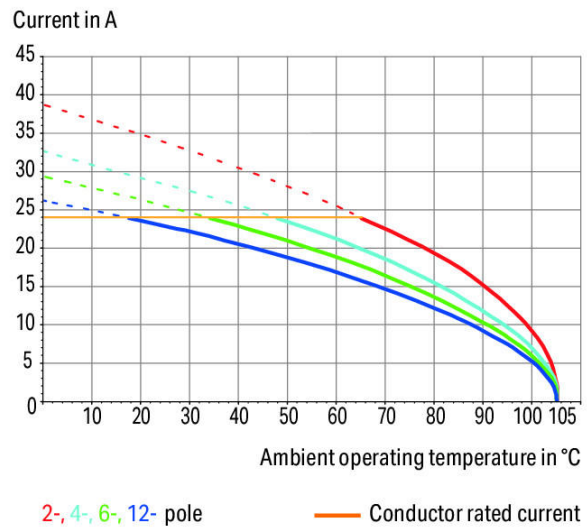


RoHS  
Compliant

BOMcheck.net

Color: ■

**Current-Carrying Capacity Curve**  
Pin spacing: 5.08 mm / Conductor cross-section: 2.5 mm<sup>2</sup> "f-st"  
Based on: EN 60512-5-2 / Reduction factor: 1



(1) Solder pin for deck 2, staggered by half a pin spacing



## Item description

- PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- High-density, double-deck design for space-efficient wiring of multiple conductors in confined areas
- Custom marking for all termination levels

## Data

### Electrical data

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

| Ratings note                      | Between the modules |
|-----------------------------------|---------------------|
| Rated voltage (III / 3)           | 630 V               |
| Rated impulse voltage (III / 3)   | 8 kV                |
| Rated voltage (III / 2)           | 1000 V              |
| Rated impulse voltage (III / 2)   | 8 kV                |
| Rated voltage (II / 2)            | 1000 V              |
| Rated impulse voltage (II / 2)    | 8 kV                |
| Rated current                     | 21 A                |
| Ratings according to 2            | IEC/EN 60664-1      |
| Ratings note 2                    | Between the decks   |
| Rated voltage (III / 3) 2         | 320 V               |
| Rated impulse voltage (III / 3) 2 | 4 kV                |
| Rated voltage (III / 2) 2         | 320 V               |
| Rated impulse voltage (III / 2) 2 | 4 kV                |
| Rated voltage (II / 2) 2          | 630 V               |
| Rated impulse voltage (II / 2) 2  | 4 kV                |
| Rated current (2)                 | 21 A                |

#### Approvals per UL 1059

|                                |       |
|--------------------------------|-------|
| Rated voltage UL (Use Group B) | 300 V |
| Rated current UL (Use Group B) | 10 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) | 10 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 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG |
| Fine-stranded conductor                                     | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG |
| Fine-stranded conductor with ferrule with plastic collar    | 0.25 ... 1.5 mm <sup>2</sup>                 |
| Fine-stranded conductor with ferrule without plastic collar | 0.25 ... 2.5 mm <sup>2</sup>                 |
| Strip length                                                | 5 ... 6 mm / 0.2 ... 0.24 inch               |
| Conductor entry angle to the PCB                            | 45°                                          |
| Note (conductor cross-section)                              | 12 AWG: THHN, THWN                           |
| No. of poles                                                | 3                                            |
| Total number of connection points                           | 9                                            |
| Total number of potentials                                  | 9                                            |
| Number of connection types                                  | 1                                            |
| Number of levels                                            | 3                                            |

## Geometrical Data

|                                   |                                |
|-----------------------------------|--------------------------------|
| Pin spacing                       | 10.16 mm / 0.4 inch            |
| Width                             | 26.32 mm / 1.036 inch          |
| Height                            | 44 mm / 1.732 inch             |
| Height from the surface           | 40 mm / 1.575 inch             |
| Depth                             | 31 mm / 1.22 inch              |
| Solder pin length                 | 4 mm                           |
| Solder pin dimensions             | 0.7 x 0.7 mm                   |
| Drilled hole diameter (tolerance) | 1.3 <sup>(- ... +0.1)</sup> mm |

## PCB contact

|                                     |                                      |
|-------------------------------------|--------------------------------------|
| PCB contact                         | THT                                  |
| Solder pin arrangement              | within the terminal block, staggered |
| Number of solder pins per potential | 1                                    |

## Material Data

|                             |                                        |
|-----------------------------|----------------------------------------|
| Color                       | orange                                 |
| 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 | 0.281 MJ |
| Weight    | 15.683 g |

## Environmental Requirements

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

## Commercial data

|                    |                     |
|--------------------|---------------------|
| Product Group      | 4 (Printed Circuit) |
| Country of origin  | PL                  |
| GTIN               | 4045454019914       |
| Customs Tariff No. | 85369010000         |

## Approvals / Certificates

### Country specific Approvals

| Logo                                                                               | Approval                        | Additional Approval Text | Certificate name |
|------------------------------------------------------------------------------------|---------------------------------|--------------------------|------------------|
|   | CCA<br>DEKRA Certification B.V. | EN 60947-7-4             | 2169331.28       |
|  | CCA<br>DEKRA Certification B.V. | EN 60947                 | NTR NL-7150      |
|  | CCA<br>DEKRA Certification B.V. | EN 60947-7-4             | NTR NL-7445      |
|  | CSA<br>DEKRA Certification B.V. | C22.2 No. 158            | 70049157         |

### Ship Approvals

| Logo                                                                               | Approval                                         | Additional Approval Text | Certificate name |
|------------------------------------------------------------------------------------|--------------------------------------------------|--------------------------|------------------|
|  | ABS<br>American Bureau of Shipping               | -                        | 14-HG1241537-PDA |
|  | DNV GL<br>Det Norske Veritas, Germanischer Lloyd | -                        | TAE000016Z       |

## UL-Approvals

| Logo                                                                             | Approval                                | Additional Approval Text | Certificate name  |
|----------------------------------------------------------------------------------|-----------------------------------------|--------------------------|-------------------|
|  | cURus<br>Underwriters Laboratories Inc. | UL 1059                  | E45172,<br>sec. 6 |
|  | cURus<br>Underwriters Laboratories Inc. | UL 1059                  | E45172,<br>sec. 6 |

## Compatible products

## Marking accessories

|                                                                                                                                                                                   |                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| <b>Item no.: 210-332/1016-202</b><br>Marking strips; as a DIN A4 sheet; MARKED; 1-16 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive  | <b>210-332</b><br>/ 1016-202 |
| <b>Item no.: 210-332/1016-204</b><br>Marking strips; as a DIN A4 sheet; MARKED; 17-31 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive | <b>210-332</b><br>/ 1016-204 |
| <b>Item no.: 210-332/1016-206</b><br>Marking strips; as a DIN A4 sheet; MARKED; 33-48 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive | <b>210-332</b><br>/ 1016-206 |

## ferrule

|                                                                                    |                                                                                                                |                |
|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------|
|  | <b>Item no.: 216-101</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / AWG 22; uninsulated; electro-tin plated  | <b>216-101</b> |
|  | <b>Item no.: 216-102</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; uninsulated; electro-tin plated | <b>216-102</b> |
|  | <b>Item no.: 216-103</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated    | <b>216-103</b> |
|  | <b>Item no.: 216-104</b><br>Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; uninsulated; electro-tin plated  | <b>216-104</b> |
|  | <b>Item no.: 216-106</b><br>Ferrule; Sleeve for 2.5 mm <sup>2</sup> / AWG 14; uninsulated; electro-tin plated  | <b>216-106</b> |
|  | <b>Item no.: 216-121</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / AWG 22; uninsulated; electro-tin plated  | <b>216-121</b> |
|  | <b>Item no.: 216-122</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; uninsulated; electro-tin plated | <b>216-122</b> |
|                                                                                    | <b>Item no.: 216-123</b>                                                                                       |                |

|                                                                                    |                                                                                                                                                                            |         |
|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
|    | Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated                                                                                                        | 216-123 |
|    | <b>Item no.: 216-124</b><br>Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated                                                                          | 216-124 |
|    | <b>Item no.: 216-131</b><br>Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated                                                                         | 216-131 |
|    | <b>Item no.: 216-132</b><br>Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated                                                                         | 216-132 |
|    | <b>Item no.: 216-141</b><br>Ferrule; Sleeve for 0.5 mm² / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92  | 216-141 |
|    | <b>Item no.: 216-142</b><br>Ferrule; Sleeve for 0.75 mm² / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92 | 216-142 |
|    | <b>Item no.: 216-143</b><br>Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92    | 216-143 |
|    | <b>Item no.: 216-144</b><br>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.: 216-201</b><br>Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated                                                                            | 216-201 |
|  | <b>Item no.: 216-202</b><br>Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated                                                                           | 216-202 |
|  | <b>Item no.: 216-203</b><br>Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated                                                                              | 216-203 |
|  | <b>Item no.: 216-204</b><br>Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated                                                                            | 216-204 |
|  | <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>                                                                                                                                                   |         |

|                                                                                   |                                                                                                                                                                          |         |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
|    | 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.: 216-262</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.: 216-284</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.: 216-301</b><br>Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated                                                                         | 216-301 |
|  | <b>Item no.: 216-302</b><br>Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated                                                                         | 216-302 |
|                                                                                   | <b>Item no.: 216-321</b><br>Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated                                                                         | 216-321 |
|  | <b>Item no.: 216-322</b><br>Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated                                                                         | 216-322 |
| <b>tools</b>                                                                      |                                                                                                                                                                          |         |
|  | <b>Item no.: 210-657</b><br>Operating tool with partially insulated shaft; Blade (3.5 x 0.5) mm; short                                                                   | 210-657 |
|  | <b>Item no.: 210-658</b><br>Operating tool with partially insulated shaft; Blade (3.5 x 0.5) mm; short; angled                                                           | 210-658 |
|  | <b>Item no.: 210-720</b><br>Operating tool with partially insulated shaft; Type 2, blade (3.5 x 0.5) mm                                                                  | 210-720 |

## Downloads

## CAD/CAE - Smart Data

## CAD data

|                     |     |          |
|---------------------|-----|----------|
| 3D Download 737-853 | URL | Download |
|---------------------|-----|----------|

## PCB libraries

|                                             |                      |                |          |
|---------------------------------------------|----------------------|----------------|----------|
| TARGET Library for WAGO PCB Terminal Blocks | 1.1.0<br>Oct 6, 2014 | zip<br>27.1 MB | Download |
|---------------------------------------------|----------------------|----------------|----------|



Compatible with TARGET PCB Design Software Version 17.x

|                                                                 |             |         |          |
|-----------------------------------------------------------------|-------------|---------|----------|
| DesignSpark Library for WAGO PCB Terminal Blocks                | 2.1         | zip     | Download |
| Compatible with DesignSpark PCB Version 4.x or higher           | Oct 6, 2014 | 22.5 MB |          |
| EAGLE Library for WAGO PCB Terminal Blocks                      | 2.1         | zip     | Download |
| Compatible with EAGLE PCB Design Software Version 6.x or higher | Oct 6, 2014 | 23.9 MB |          |

Subject to changes.