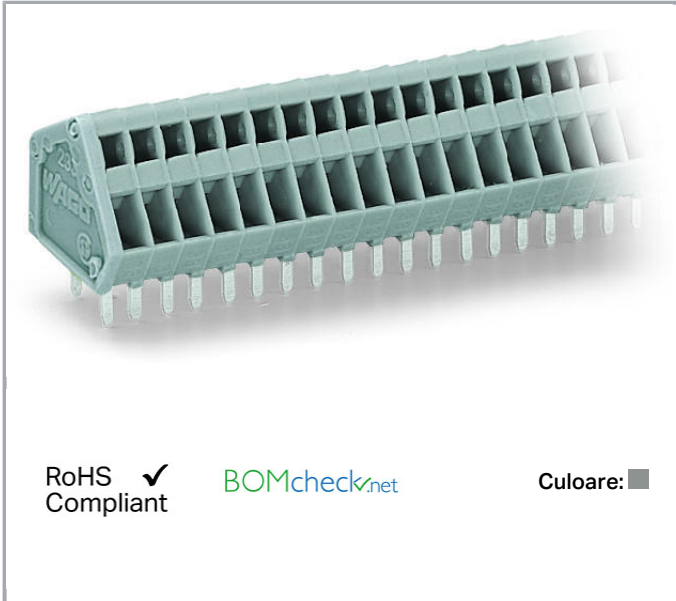


# Fișă tehnică | Număr articol: 233-103

PCB terminal block; 0.5 mm<sup>2</sup>; Pin spacing 2.5 mm; 3-pole; CAGE CLAMP®; 0,50 mm<sup>2</sup>; gray

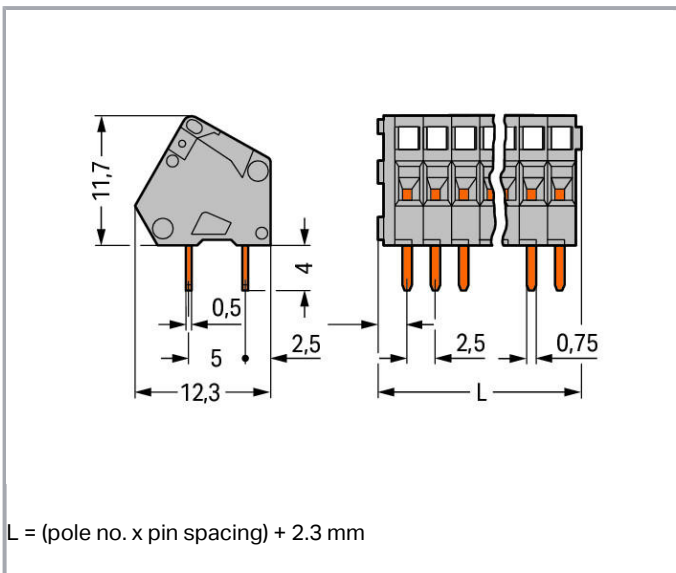
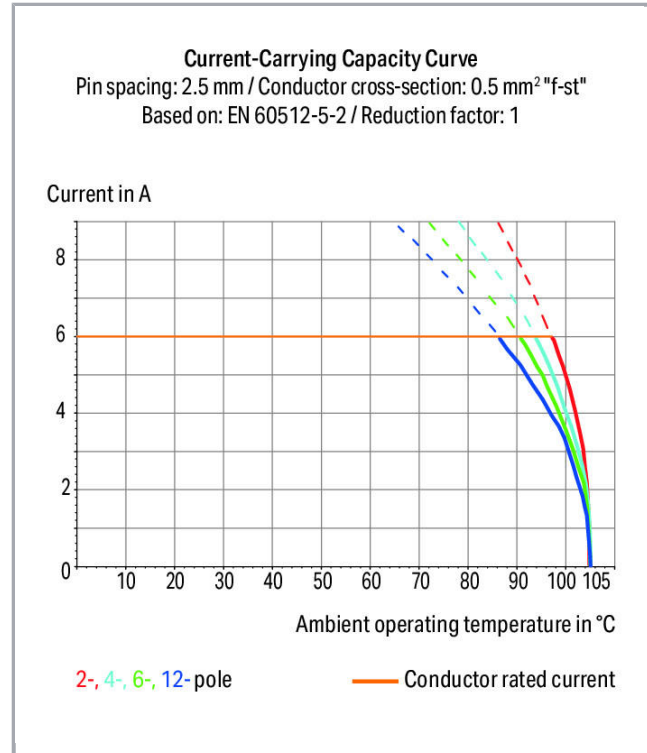
[www.wago.com/233-103](http://www.wago.com/233-103)



RoHS  Compliant

[BOMcheck.net](http://BOMcheck.net)

Culoare: ■



Supra modificărilor.

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Aveți întrebări despre produsele noastre?  
Vă stăm la dispoziție pentru preluarea apelului la +40 (0) 31 421 85 68.

## Descriere articol

- Compact terminal strips with CAGE CLAMP® connection and screwdriver actuation parallel or perpendicular to conductor entry
- Double solder pins for high mechanical stability
- Custom color combinations

## Date

### Electrical data

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

| Ratings per                 | IEC/EN 60664-1  |
|-----------------------------|---|
| Nominal voltage (III/3)     | 63 V  |
| Rated surge voltage (III/3) | 2,5 kV  |
| Rated voltage (III/2)       | 160 V   |
| Rated surge voltage (III/2) | 2,5 kV  |
| Nominal voltage (II/2)      | 320 V   |
| Rated surge voltage (II/2)  | 2,5 kV  |
| Rated current               | 6 A   |
| Legend (ratings)            | (III / 2) $\hat{=}$ Overvoltage category III / Pollution degree 2 |

#### Approvals per UL 1059

|                                |         |
|--------------------------------|---------|
| Rated voltage UL (Use Group B) | 150 V   |
| Rated current UL (Use Group B) | 4 A     |
| Approvals per                  | UL 1059 |

#### Approvals per CSA

|                                 |       |
|---------------------------------|-------|
| Rated voltage CSA (Use Group B) | 150 V |
| Rated current CSA (Use Group B) | 4 A   |

## Connection data

|   |  |
|---|--|
| Connection technology                           | CAGE CLAMP®                                  |
| Actuation type                                  | Operating tool                               |
| 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>                         |

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|   |   |
|---|---|
| Fine-stranded conductor; with uninsulated ferrule | 0.25 mm <sup>2</sup>  |
| Strip length                                      | 5 ... 6 mm / 0.2 ... 0.24 inch  |
| Conductor connection direction to PCB             | 30°   |
| Pole No.  | 3   |
| Total number of connection points                 | 3   |
| Total number of potentials                        | 3   |
| Number of connection types                        | 1   |
| Number of levels                                  | 1   |
| 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. |

### Geometrical Data

|                                      |                      |
|--------------------------------------|----------------------|
| Pin spacing                          | 2.5 mm / 0.098 inch  |
| Width                                | 9.8 mm / 0.386 inch  |
| Height                               | 15.7 mm / 0.618 inch |
| Height from the surface              | 11.7 mm / 0.461 inch |
| Depth                                | 12.1 mm / 0.476 inch |
| Solder pin length                    | 4 mm                 |
| Solder pin dimensions                | 0.5 x 0.75 mm        |
| Drilled hole diameter with tolerance | 1.1 (+0.1) 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                                      |
| Insulation 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                   | 0,016 MJ                               |
| Weight                      | 1,1 g                                  |

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## Environmental Requirements





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

## Commercial data


|                       |                     |
|-----------------------|---------------------|
| Product Group         | 4 (Printed Circuit) |
| Packaging type        | BOX                 |
| Country of origin     | CH                  |
| GTIN                  | 4045454049157       |
| Customs tariff number | 85369010000         |

## Aprobări / certificate

### Country specific Approvals

| Embleă   | Aprobare                        | Text de aprobare suplimentar | Nume certificat |
|--|---------------------------------|------------------------------|-----------------|
|    | CCA<br>DEKRA Certification B.V. | EN 60998                     | NTR NL<br>6946  |
|  | CCA<br>DEKRA Certification B.V. | EN 60998                     | 2153951.01      |
|  | CCA<br>DEKRA Certification B.V. | EN 60947-7-4                 | 2169331.02      |
|  | CSA<br>DEKRA Certification B.V. | C22.2                        | 1465035         |

### Ship Approvals

| Embleă   | Aprobare   | Text de aprobare suplimentar | Nume certificat          |
|--|--|------------------------------|--------------------------|
|  | ABS<br>American Bureau of Shipping               | -                            | 19-<br>HG1869876-<br>PDA |
|  | DNV GL<br>Det Norske Veritas, Germanischer Lloyd | -                            | TAE000016Z               |


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## UL-Approvals

| Emblemă  | Aprobare                            | Text de aprobare suplimentar | Nume certificat     |
|--|-------------------------------------|------------------------------|---------------------|
|  | UL<br>UL International Germany GmbH | UL 1059                      | 20190731-<br>E45172 |






## Counterpart

## Produse compatibile

### ferrule

|  |   |  |
|--|---|--|
|   | <b>Nr. articol: 216-131</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated       | <a href="http://www.wago.com/216-131">www.wago.com/216-131</a> |
|  | <b>Nr. articol: 216-151</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated       | <a href="http://www.wago.com/216-151">www.wago.com/216-151</a> |
|  | <b>Nr. articol: 216-301</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow | <a href="http://www.wago.com/216-301">www.wago.com/216-301</a> |
|  | <b>Nr. articol: 216-321</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow | <a href="http://www.wago.com/216-321">www.wago.com/216-321</a> |

### tools

|  |   |  |
|--|---|--|
|  | <b>Nr. articol: 210-647</b><br>Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft                | <a href="http://www.wago.com/210-647">www.wago.com/210-647</a> |
|  | <b>Nr. articol: 210-648</b><br>Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; angled; short | <a href="http://www.wago.com/210-648">www.wago.com/210-648</a> |
|  | <b>Nr. articol: 210-719</b><br>Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft                | <a href="http://www.wago.com/210-719">www.wago.com/210-719</a> |
|  | <b>Nr. articol: 233-331</b><br>Operating tool; insulated; yellow  | <a href="http://www.wago.com/233-331">www.wago.com/233-331</a> |
|  | <b>Nr. articol: 233-332</b><br>Operating tool; made of insulating material  | <a href="http://www.wago.com/233-332">www.wago.com/233-332</a> |

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Nr. articol: 233-335

Operating tool

[www.wago.com/233-335](http://www.wago.com/233-335)**Marking accessories****Nr. articol: 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

[www.wago.com/210-331/250-202](http://www.wago.com/210-331/250-202)**Nr. articol: 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

[www.wago.com/210-331/250-204](http://www.wago.com/210-331/250-204)**Nr. articol: 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

[www.wago.com/210-331/250-206](http://www.wago.com/210-331/250-206)**Nr. articol: 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

[www.wago.com/210-331/250-207](http://www.wago.com/210-331/250-207)**Nr. articol: 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

[www.wago.com/210-331/254-202](http://www.wago.com/210-331/254-202)**Nr. articol: 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

[www.wago.com/210-331/254-204](http://www.wago.com/210-331/254-204)**Nr. articol: 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

[www.wago.com/210-331/254-206](http://www.wago.com/210-331/254-206)**Nr. articol: 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

[www.wago.com/210-331/254-207](http://www.wago.com/210-331/254-207)**Descărcări****Documentation****Additional Information**

Technical explanations

Apr 3, 2019

pdf  
3,6 MB

Descărcare

**CAD/CAE-Data****CAD data**

2D/3D Models 233-103

URL

Descărcare

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## CAE data

EPLAN Data Portal 233-103

[URL](#)

[Descărcare](#)

## PCB Design

Symbol and Footprint 233-103

[URL](#)

[Descărcare](#)

CAX data for your PCB design, consisting of "schematic symbols and PCB footprints", allow easy integration of the WAGO component into your development environment.

### Supported formats:

- Accel EDA 14 & 15
- Altium 6 to current version
- Cadence Allegro
- DesignSpark
- Eagle Libraries
- KiCad
- Mentor Graphics BoardStation
- Mentor Graphics Design Architect
- Mentor Graphics Design Expedition 99 and 2000
- OrCAD 9.X PCB and Capture
- PADS PowerPCB 3, 3.5, 4.X, and 5.X
- PADS PowerPCB and PowerLogic 3.0
- PCAD 2000, 2001, 2002, 2004, and 2006
- Pulsonix 8.5 or newer
- STL
- 3D STEP
- TARGET 3001!
- View Logic ViewDraw
- Quadcept
- Zuken CadStar 3 and 4
- Zuken CR-5000 and CR-8000

PCB Component Libraries (EDA), PCB CAD Library Ultra Librarian

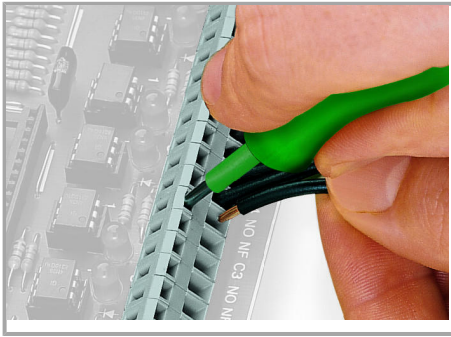
## Installation Notes

### Inserting a conductor

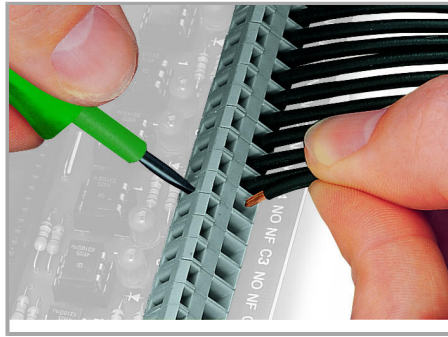
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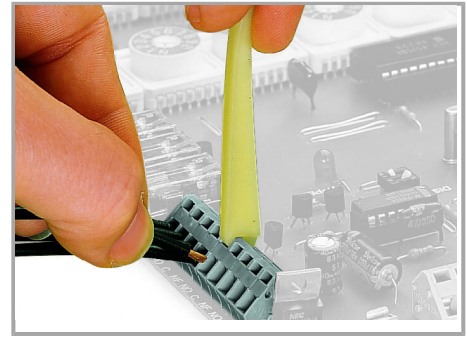
Aveți întrebări despre produsele noastre?  
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Inserting a conductor via 3.5 mm screwdriver.



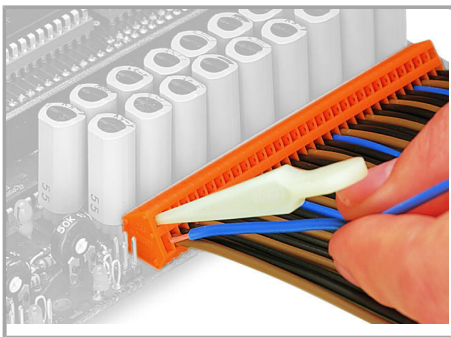
Inserting a conductor via 3.5 mm screwdriver.



Inserting a conductor via operating tool.

Screwdriver actuation parallel to conductor entry.

Screwdriver actuation perpendicular to conductor entry.

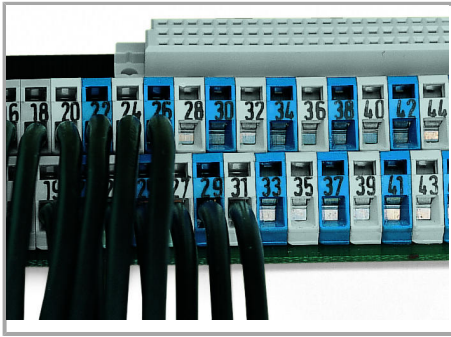


Compared to standard screwdrivers, these operating tools are far more convenient for wiring PCB terminal strips at factory.

#### Assembly

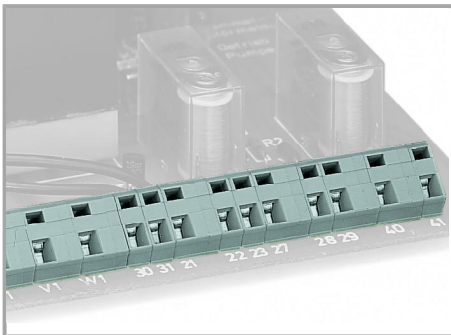
Supus modificărilor.





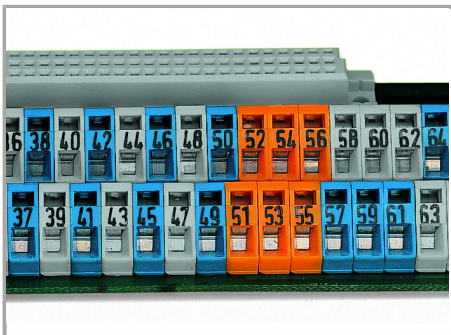
PCB Terminal Strips placed behind each other save space – staggering them by half the pin spacing simplifies subsequent wiring of the first row.

#### Assembly

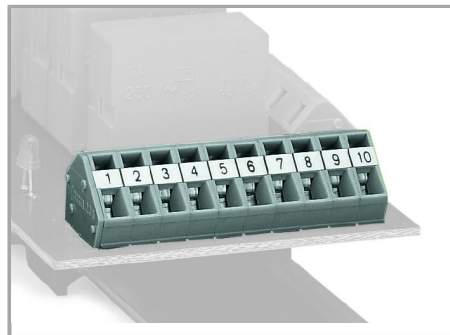


Combining PCB terminal blocks with different pin spacing.

#### Marking



Labeling via factory direct marking.



Labeling with self-adhesive marking strips.

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