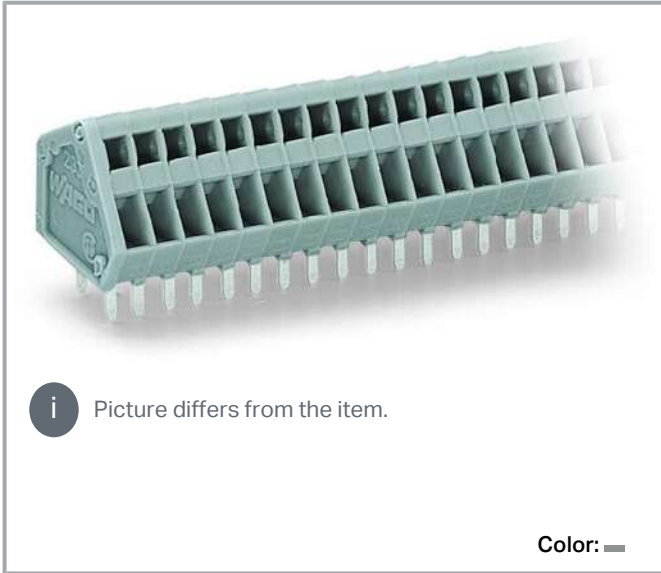


**Data sheet | Item number: 233-103**

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

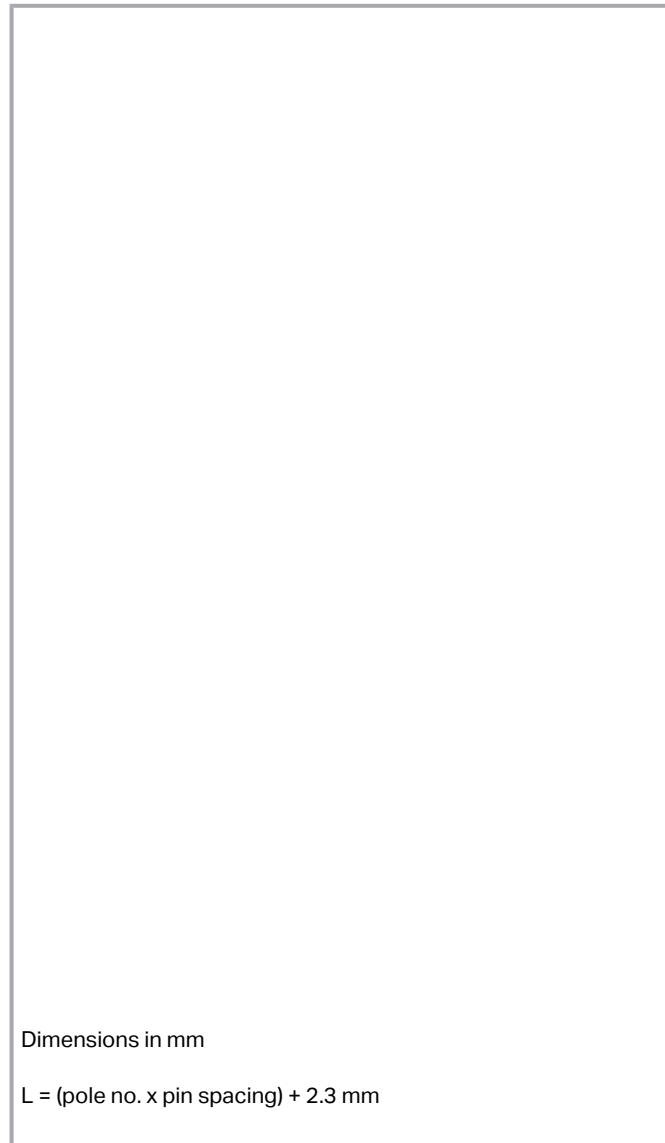
[www.wago.com/233-103](http://www.wago.com/233-103)



Subject to changes. Please also observe the further product documentation!

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## Item description

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

Subject to changes. Please also observe the further product documentation!



## Data Notes

Variants:	Other pole numbers Other colors Mixed-color PCB connector strips Direct marking Other versions (or variants) can be requested from WAGO Sales or configured at <a href="https://configurator.wago.com/">https://configurator.wago.com/</a>
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## Electrical data

### IEC Approvals

Ratings per	IEC/EN 60664-1
Rated 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

### UL Approvals

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

### CSA Approvals

Approvals per	CSA
Rated voltage CSA (Use Group B)	150 V
Rated current CSA (Use Group B)	4 A

### Connection data

Total number of connection points	3
Total number of potentials	3
Number of connection types	1

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Number of levels	1
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### Connection 1

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>
Fine-stranded conductor; with uninsulated ferrule	0.25 mm <sup>2</sup>
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.
Strip length	5 ... 6 mm / 0.2 ... 0.24 inch
Conductor connection direction to PCB	30°
Number of poles	3

### Physical 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 (PA66)
Flammability class per UL94	V0

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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

### Environmental requirements





Limit temperature range	-60 ... +105 °C
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### Commercial data

Product Group	4 (Printed Circuit)
PU (SPU)	500 (125) Stück
Packaging type	box
Country of origin	CH
GTIN	4045454049157
Customs tariff number	8536904000

### Approvals / Certificates


#### Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	CCA DEKRA Certification B.V.	EN 60998	NTR NL 6946
	CCA DEKRA Certification B.V.	EN 60998	2153951.01
	CCA DEKRA Certification B.V.	EN 60947-7-4	NTR NL 7786
	CSA DEKRA Certification B.V.	C22.2	1465035
	KEMA/KEUR DEKRA Certification B.V.	EN 60947-7-4	71-111040


Subject to changes. Please also observe the further product documentation!



## Ship Approvals





Logo	Approval	Additional Approval Text	Certificate name
	<b>ABS</b> American Bureau of Shipping	-	19- HG1869876- PDA
	<b>DNV GL</b> Det Norske Veritas, Germanischer Lloyd	-	TAE000016Z

## UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>UL</b> UL International Germany GmbH	UL 1059	E45172

## Optional accessories

## Tools

Operating tool		
	<b>Item no.: 210-648</b> 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>Item no.: 210-647</b> Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured	<a href="http://www.wago.com/210-647">www.wago.com/210-647</a>
	<b>Item no.: 210-719</b> 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>Item no.: 233-332</b> Operating tool; made of insulating material; white	<a href="http://www.wago.com/233-332">www.wago.com/233-332</a>
	<b>Item no.: 233-331</b> Operating tool; insulated; yellow	<a href="http://www.wago.com/233-331">www.wago.com/233-331</a>
	<b>Item no.: 233-335</b> Operating tool; yellow	<a href="http://www.wago.com/233-335">www.wago.com/233-335</a>

## Ferrules

Ferrule
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<b>Item no.: 216-131</b> Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated; silver-colored	<a href="http://www.wago.com/216-131">www.wago.com/216-131</a>
<b>Item no.: 216-151</b> 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>Item no.: 216-301</b> 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>Item no.: 216-321</b> 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>

**Marking accessories**

<b>Marking strip</b>	
<b>Item no.: 210-331/250-207</b> 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	<a href="http://www.wago.com/210-331/250-207">www.wago.com/210-331/250-207</a>
<b>Item no.: 210-331/250-202</b> 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	<a href="http://www.wago.com/210-331/250-202">www.wago.com/210-331/250-202</a>
<b>Item no.: 210-331/254-204</b> 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	<a href="http://www.wago.com/210-331/254-204">www.wago.com/210-331/254-204</a>
<b>Item no.: 210-331/250-204</b> 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	<a href="http://www.wago.com/210-331/250-204">www.wago.com/210-331/250-204</a>
<b>Item no.: 210-331/254-206</b> 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	<a href="http://www.wago.com/210-331/254-206">www.wago.com/210-331/254-206</a>
<b>Item no.: 210-331/250-206</b> 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	<a href="http://www.wago.com/210-331/250-206">www.wago.com/210-331/250-206</a>
<b>Item no.: 210-331/254-202</b> 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	<a href="http://www.wago.com/210-331/254-202">www.wago.com/210-331/254-202</a>
<b>Item no.: 210-331/254-207</b> 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	<a href="http://www.wago.com/210-331/254-207">www.wago.com/210-331/254-207</a>

**Downloads**

**Documentation**

**Additional Information**

Technical explanations	2019 Apr 3	pdf	Download
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2.0 MB

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## CAD files

### CAE data

EPLAN Data Portal 233-103      URL      Download

ZUKEN Portal 233-103      URL      Download

### PCB Design

Symbol and Footprint 233-103      URL      Download

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

—  
Subject to changes. Please also observe the further product documentation!



- Zuken CR-5000 and CR-8000

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

### CAD data

2D/3D Models 233-103	URL	Download
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## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 233-103	URL	Download
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		

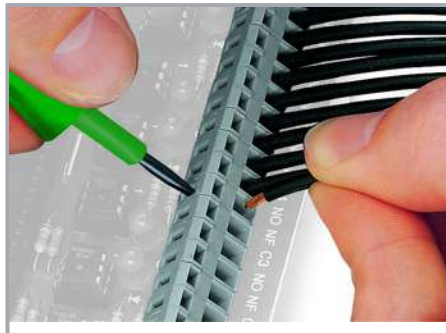
## Installation Notes

### Conductor termination



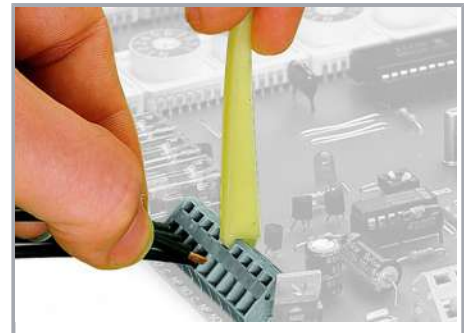
Inserting a conductor via 3.5 mm screwdriver.

Screwdriver actuation parallel to conductor entry



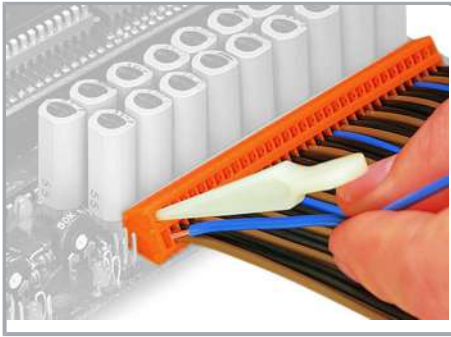
Inserting a conductor via 3.5 mm screwdriver.

Screwdriver actuation perpendicular to conductor entry



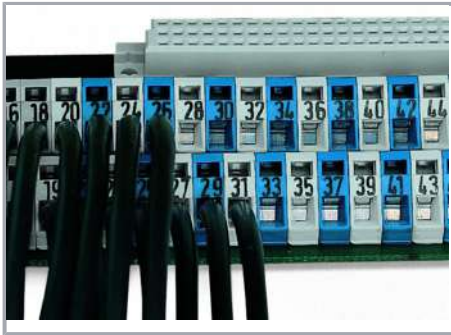
Inserting a conductor via operating tool.

Subject to changes. Please also observe the further product documentation!



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

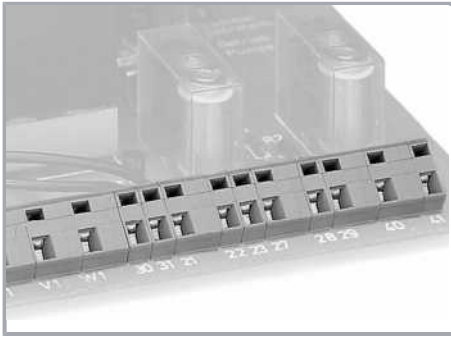
#### Installation



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

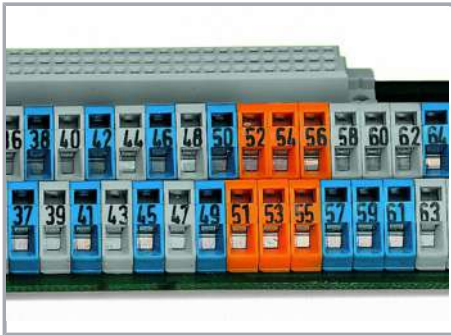
#### Installation

Subject to changes. Please also observe the further product documentation!

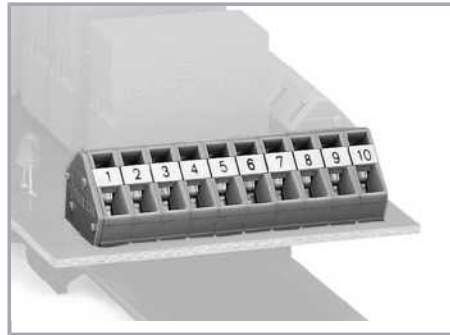


Combining PCB terminal blocks with different pin spacing.

### Marking



Labeling via factory direct marking.



Optional: Labeling with self-adhesive marking strips possible

Subject to changes. Please also observe the further product documentation!