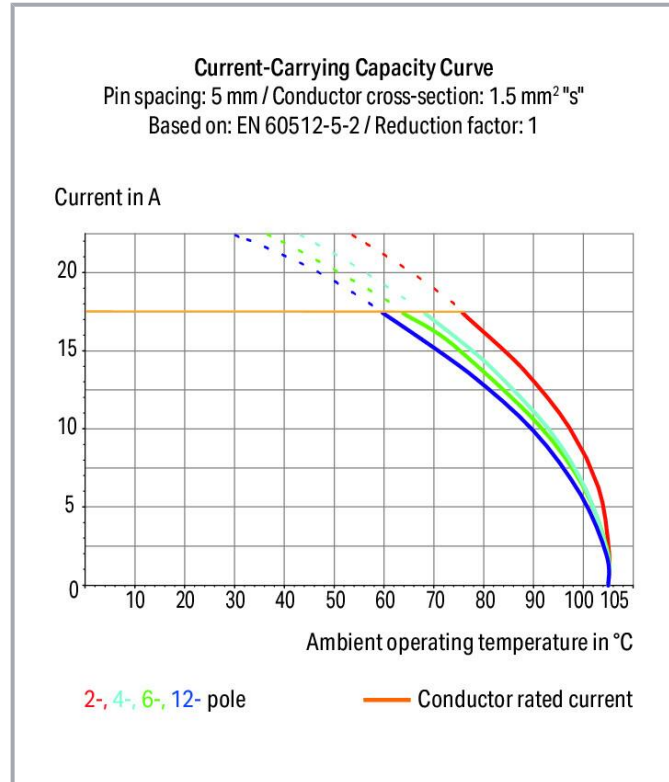


**Data sheet | Item number: 250-509**

PCB terminal block; push-button; 1.5 mm<sup>2</sup>; Pin spacing 5 mm; 9-pole; Push-in CAGE CLAMP®; 1,50 mm<sup>2</sup>; gray



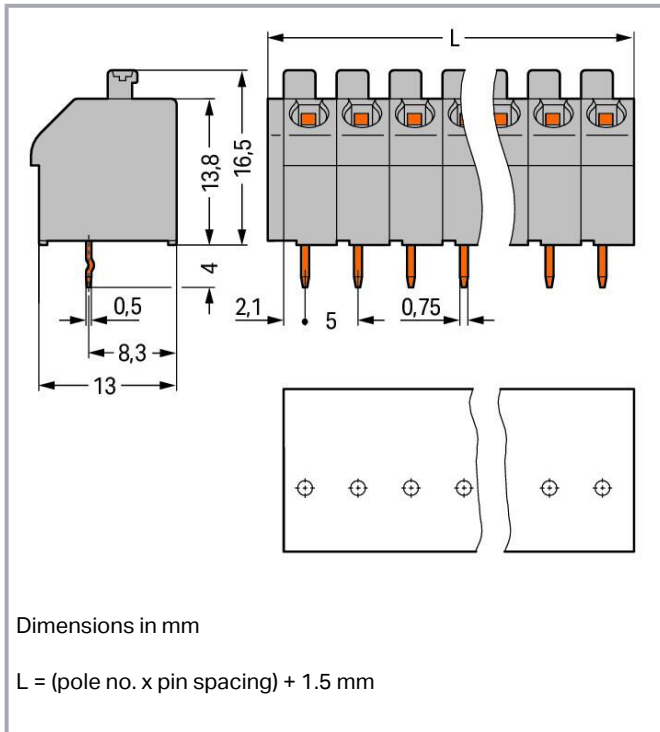
[www.wago.com/250-509](http://www.wago.com/250-509)



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

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## Item description

- Compact PCB terminal strips with push-buttons
- Push-in termination of solid conductors
- Termination/removal of fine-stranded conductors via push-buttons
- 45° conductor entry angle provides easy, space-saving wiring

## 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 <https://configurator.wago.com/>.

## Electrical data

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

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### Ratings per IEC/EN

Ratings per	IEC/EN 60664-1
Nominal 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
Nominal voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV
Rated current	17.5 A
Legend (ratings)	(III / 2) $\hat{=}$ Overvoltage category III / Pollution degree 2

### Ratings per UL 1059

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

### Ratings per CSA

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 points	9
Total number of potentials	9
Number of connection types	1
Number of levels	1

### Connection 1

Connection technology	Push-in CAGE CLAMP <sup>®</sup>
Actuation type	Push-button
Solid conductor	0.5 ... 1.5 mm <sup>2</sup> / 20 ... 14 AWG

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



Fine-stranded conductor	0.75 ... 1.5 mm <sup>2</sup> / 18 ... 16 AWG
Fine-stranded conductor; with insulated ferrule	0.5 ... 1 mm <sup>2</sup>
Fine-stranded conductor; with uninsulated ferrule	0.5 ... 1 mm <sup>2</sup>
Note (conductor cross-section)	Fine-stranded conductor 0,75 ... 1,5 mm <sup>2</sup> (I max. 4 A) Fine-stranded conductor 0,5 mm <sup>2</sup> (I max. 2 A)
Strip length	9 ... 10 mm / 0.35 ... 0.39 inches
Conductor connection direction to PCB	45 °
Pole number	9

### Physical data

Pin spacing	5 mm / 0.197 inches
Width	46.5 mm / 1.831 inches
Height	20.5 mm / 0.807 inches
Height from the surface	16.5 mm / 0.65 inches
Depth	13 mm / 0.512 inches
Solder pin length	4 mm
Solder pin dimensions	0.5 x 0.75 mm
Drilled hole diameter with tolerance	1.2 <sup>(+0.1)</sup> mm

### Plug-in connection

Plugging without loss of pin spacing	No
--------------------------------------	----

### PCB contact

PCB contact	THT
Solder pin arrangement	over the entire terminal strip (in-line)
Number of solder pins per potential	1

### Material Data

Note (material data)	Information on material specifications can be found here
Color	gray
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome-nickel spring steel (CrNi)
Contact material	

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



	Electrolytic copper (E <sub>Cu</sub> )
Contact plating	Tin
Fire load	0.188 MJ
Weight	8.7 g

**Environmental requirements**

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



**Commercial data**

Product Group	4 (Printed Circuit Connectors)
eCl@ss 10.0	27-44-04-01
eCl@ss 9.0	27-44-04-01
ETIM 8.0	EC002643
ETIM 7.0	EC002643
PU (SPU)	100 (25) pcs
Packaging type	box
Country of origin	PL
GTIN	4044918303682
Customs tariff number	85369010000

**Environmental Product Compliance**

RoHS Compliance Status	Compliant, No Exemption
------------------------	-------------------------


**Approvals / Certificates****General approvals**


Logo	Approval	Additional Approval Text	Certificate name
	CCA DEKRA Certification B.V.	EN 60947	NTR NL 7833/2
	CCA DEKRA Certification B.V.	EN 60998	NTR NL- 7705/1
	CSA DEKRA Certification B.V.	C22.2	1132097

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





	KEMA/KEUR DEKRA Certification B.V.	EN 60947	71- 124227
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	KEMA/KEUR DEKRA Certification B.V.	EN 60998	71- 124629
--	---------------------------------------	----------	---------------

	UL UL International Germany GmbH	UL 1059	E45172
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**Declarations of conformity and manufacturer's declarations**

Logo	Approval	Additional Approval Text	Certificate name
	EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
	UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

**Approvals for marine applications**

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

**Optional accessories**

**Testing and measuring**

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

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## Testing accessories

**Item no.: 210-136**

Test plug; 2 mm Ø; with 500 mm cable; red

[www.wago.com/210-136](http://www.wago.com/210-136)

## Marking accessories

## Marking strip

**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; white

[www.wago.com/210-332/500-202](http://www.wago.com/210-332/500-202)**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; white

[www.wago.com/210-332/500-206](http://www.wago.com/210-332/500-206)**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; white

[www.wago.com/210-332/500-205](http://www.wago.com/210-332/500-205)**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; white

[www.wago.com/210-332/500-204](http://www.wago.com/210-332/500-204)

## Tool

## Operating tool

**Item no.: 210-647**

Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured

[www.wago.com/210-647](http://www.wago.com/210-647)**Item no.: 210-719**

Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

[www.wago.com/210-719](http://www.wago.com/210-719)

## Ferrule

## Ferrule

**Item no.: 216-101**Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored[www.wago.com/216-101](http://www.wago.com/216-101)**Item no.: 216-102**Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored[www.wago.com/216-102](http://www.wago.com/216-102)**Item no.: 216-103**Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated[www.wago.com/216-103](http://www.wago.com/216-103)**Item no.: 216-123**Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated; silver-colored[www.wago.com/216-123](http://www.wago.com/216-123)**Item no.: 216-122**Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored[www.wago.com/216-122](http://www.wago.com/216-122)**Item no.: 216-142**

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

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	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	<a href="http://www.wago.com/216-142">www.wago.com/216-142</a>
	<b>Item no.: 216-132</b> Ferrule; Sleeve for 0.34 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated	<a href="http://www.wago.com/216-132">www.wago.com/216-132</a>
	<b>Item no.: 216-121</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored	<a href="http://www.wago.com/216-121">www.wago.com/216-121</a>
	<b>Item no.: 216-143</b> 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	<a href="http://www.wago.com/216-143">www.wago.com/216-143</a>
	<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.: 216-141</b> 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	<a href="http://www.wago.com/216-141">www.wago.com/216-141</a>
	<b>Item no.: 216-152</b> Ferrule; Sleeve for 0.34 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated	<a href="http://www.wago.com/216-152">www.wago.com/216-152</a>
	<b>Item no.: 216-203</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; red	<a href="http://www.wago.com/216-203">www.wago.com/216-203</a>
	<b>Item no.: 216-202</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray	<a href="http://www.wago.com/216-202">www.wago.com/216-202</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.: 216-201</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated; white	<a href="http://www.wago.com/216-201">www.wago.com/216-201</a>
	<b>Item no.: 216-223</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; red	<a href="http://www.wago.com/216-223">www.wago.com/216-223</a>
	<b>Item no.: 216-241</b> 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	<a href="http://www.wago.com/216-241">www.wago.com/216-241</a>
	<b>Item no.: 216-242</b> 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	<a href="http://www.wago.com/216-242">www.wago.com/216-242</a>
	<b>Item no.: 216-222</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray	<a href="http://www.wago.com/216-222">www.wago.com/216-222</a>
	<b>Item no.: 216-221</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated; white	<a href="http://www.wago.com/216-221">www.wago.com/216-221</a>
	<b>Item no.: 216-243</b> 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	<a href="http://www.wago.com/216-243">www.wago.com/216-243</a>
	<b>Item no.: 216-263</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped;	<a href="http://www.wago.com/216-263">www.wago.com/216-263</a>

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





acc. to DIN 46228, Part 4/09.90; red

	<b>Item no.: 216-262</b> 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	<a href="http://www.wago.com/216-262">www.wago.com/216-262</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>
	<b>Item no.: 216-322</b> Ferrule; Sleeve for 0.34 mm <sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise	<a href="http://www.wago.com/216-322">www.wago.com/216-322</a>
	<b>Item no.: 216-302</b> Ferrule; Sleeve for 0.34 mm <sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise	<a href="http://www.wago.com/216-302">www.wago.com/216-302</a>

## Downloads

### Documentation

#### Additional Information

Technical Section	2019 Apr 3	pdf	Download
Technical explanations		2.0 MB	

## CAD/CAE-Data

### CAD data

2D/3D Models 250-509	URL	Download
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### CAE data

EPLAN Data Portal 250-509	URL	Download
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ZUKEN Portal 250-509	URL	Download
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### PCB Design

Symbol and Footprint 250-509	URL	Download
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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

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- 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

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## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 250-509	URL	Download
PCB terminal block; push-button; 1.5 mm <sup>2</sup> ; Pin spacing 5 mm; 9-pole; Push-in CAGE CLAMP®; 1,50 mm <sup>2</sup> ; gray		

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## Installation Notes

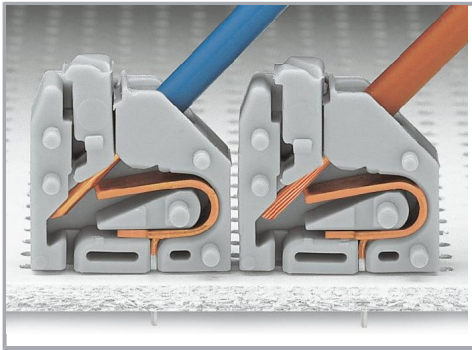
### Conductor termination

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

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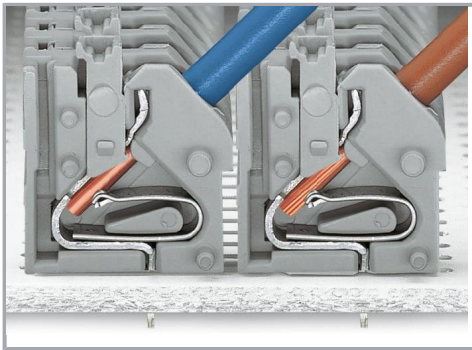
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Inserting solid conductors via push-in termination.

Inserting fine-stranded conductors via push-buttons, 250 Series – 3.5 mm pin spacing.

#### Conductor termination



Space-saving wiring, 250 Series – 5 mm pin spacing.

#### Testing

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

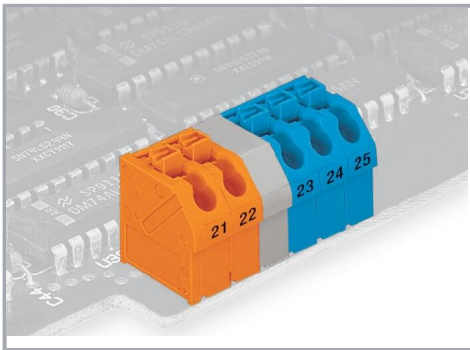


Testing with 11 mm Ø test pin, on the conductor, 250 Series – 2.5 ... 3.5 mm pin spacing.

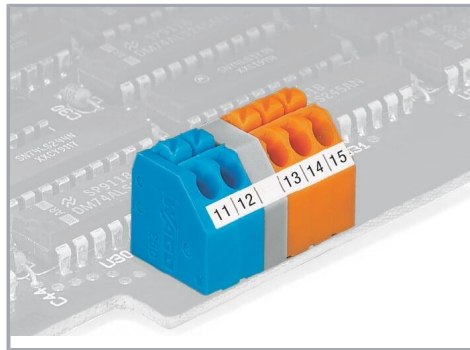


Testing with 2 mm Ø test plug, touch contact, 250 Series – 5 mm pin spacing.

### Marking



Labeling via self-adhesive strips or direct marking. Mixed-color terminal strips (with or without spacer) are available upon request.



Labeling via self-adhesive strips or direct marking. Mixed-color terminal strips (with or without spacer) are available upon request.

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