

Data sheet | Item number: 236-224

PCB terminal block; 2.5 mm²; Pin spacing 7.5/7.62 mm; 24-pole; CAGE CLAMP®; commoning option; 2,50 mm²; gray



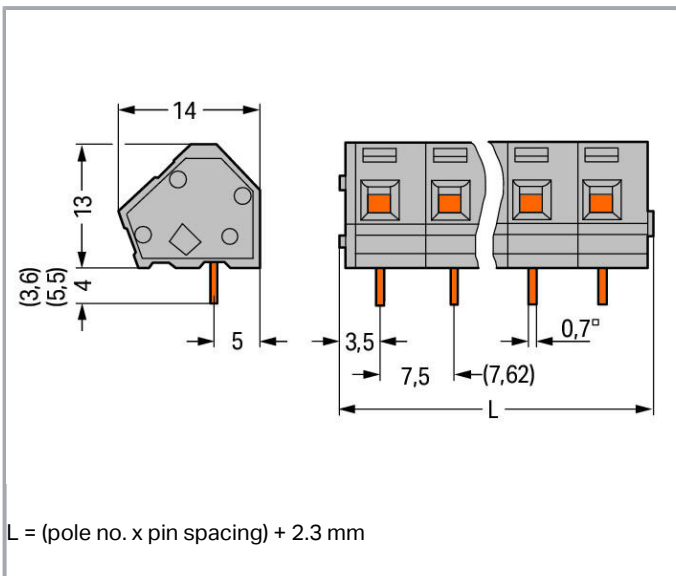
www.wago.com/236-224



RoHS Compliant

[BOMcheck.net](https://www.bomcheck.net)

Color: ■



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

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Do you have any questions about our products?
We are always happy to take your call at +49 (571) 887-44222.



Item description

- PCB terminal strips with CAGE CLAMP® connection and screwdriver actuation parallel or perpendicular to conductor entry
- Versions with Ex approval
- Mixed-color PCB terminal strips from factory
- Operating tools for factory wiring
- 45° conductor entry angle permits a wide range of applications and wiring options
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart

Data

Electrical data

Ratings per IEC/EN 60664-1

Ratings per	IEC/EN 60664-1
Rated voltage (III / 3)	400 V
Rated impulse voltage (III / 3)	6 kV
Rated voltage (III / 2)	630 V
Rated impulse voltage (III / 2)	6 kV
Rated voltage (II / 2)	1000 V
Rated impulse voltage (II / 2)	6 kV
Rated current	24 A
Legend (ratings)	(III / 2) ≙ Overvoltage category III / Pollution degree 2

Approvals per UL 1059

Rated voltage UL (Use Group B)	300 V
Rated current UL (Use Group B)	15 A
Rated voltage UL (Use Group D)	300 V
Rated current UL (Use Group D)	10 A
Approvals per	UL 1059

Approvals per CSA

Rated voltage CSA (Use Group B)	300 V
Rated current CSA (Use Group B)	15 A
Rated voltage CSA (Use Group D)	300 V
Rated current CSA (Use Group D)	10 A

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Connection data

Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 ... 1.5 mm ²
Fine-stranded conductor with ferrule without plastic collar	0.25 ... 1.5 mm ²
Strip length	5 ... 6 mm / 0.2 ... 0.24 inch
Conductor entry angle to the PCB	45°
No. of poles	24
Total number of connection points	24
Total number of potentials	24
Number of connection types	1
Number of levels	1
Note (conductor cross-section)	12 AWG: THHN, THWN

Geometrical Data

Pin spacing	7.5/7.62 mm / 0.295/0.3 inch
Width	182.3 mm / 7.177 inch
Height	17 mm / 0.669 inch
Height from the surface	13 mm / 0.512 inch
Depth	14 mm / 0.551 inch
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (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	1

Material Data

Color	gray
Material group	I
Insulating material	Polyamide 66 (PA 66)

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

Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E _{Cu})
Contact plating	tin-plated
Fire load	0.46 MJ
Weight	25.6 g

Environmental Requirements





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

Product Group	4 (Printed Circuit)
Packaging type	BOX
Country of origin	CH
GTIN	4044918768191
Customs Tariff No.	85369010000


Approvals / Certificates

Country specific Approvals


Logo	Approval	Additional Approval Text	Certificate name
	CCA DEKRA Certification B.V.	EN 60947	NTR NL- 7109
	CCA DEKRA Certification B.V.	EN 60998	NTR NL- 7195
	CCA DEKRA Certification B.V.	EN 60947	2168090.01
	CSA DEKRA Certification B.V.	C22.2 No. 158	1673957

Ship Approvals

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

Logo	Approval	Additional Approval Text	Certificate name
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE000016Z






UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UR Underwriters Laboratories Inc.	UL 1059	E45172, sec. 6



Counterpart

Compatible products

tools

	Item no.: 210-657 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short	www.wago.com/210-657
	Item no.: 210-658 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short	www.wago.com/210-658
	Item no.: 210-720 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft	www.wago.com/210-720
	Item no.: 236-332 Operating tool; natural	www.wago.com/236-332
	Item no.: 236-335 Operating tool	www.wago.com/236-335

Test Accessories

	Item no.: 231-125 Testing plug module with contact stud; Pin spacing 7.62 mm / 0.3 in; 2,50 mm ² ; orange	www.wago.com/231-125
	Item no.: 231-161 Testing plug module with contact stud; for 236 Series; Pin spacing 7.5 mm / 0.295 in	www.wago.com/231-161

Marking accessories

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

Item no.: 210-332/750-020

Marking strips; as a DIN A4 sheet; MARKED; 1-20 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

www.wago.com/210-332/750-020**Item no.: 210-332/762-020**

Marking strips; as a DIN A4 sheet; MARKED; 1-20 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

www.wago.com/210-332/762-020**ferrule****Item no.: 216-101**Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin platedwww.wago.com/216-101**Item no.: 216-102**Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin platedwww.wago.com/216-102**Item no.: 216-103**Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin platedwww.wago.com/216-103**Item no.: 216-104**Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin platedwww.wago.com/216-104**Item no.: 216-121**Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin platedwww.wago.com/216-121**Item no.: 216-122**Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin platedwww.wago.com/216-122**Item no.: 216-123**Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin platedwww.wago.com/216-123**Item no.: 216-124**Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin platedwww.wago.com/216-124**Item no.: 216-131**Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin platedwww.wago.com/216-131**Item no.: 216-132**Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin platedwww.wago.com/216-132**Item no.: 216-141**Ferrule; Sleeve for 0.5 mm² / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92www.wago.com/216-141**Item no.: 216-142**Ferrule; Sleeve for 0.75 mm² / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92www.wago.com/216-142**Item no.: 216-143**Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92www.wago.com/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 1/08.92www.wago.com/216-144

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

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	Item no.: 216-151 Ferrule; Sleeve for 0.25 mm ² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-151
	Item no.: 216-152 Ferrule; Sleeve for 0.34 mm ² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-152
	Item no.: 216-201 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-201
	Item no.: 216-202 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-202
	Item no.: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-203
	Item no.: 216-204 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black	www.wago.com/216-204
	Item no.: 216-221 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-221
	Item no.: 216-222 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-222
	Item no.: 216-223 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-223
	Item no.: 216-224 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black	www.wago.com/216-224
	Item no.: 216-241 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white	www.wago.com/216-241
	Item no.: 216-242 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray	www.wago.com/216-242
	Item no.: 216-243 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red	www.wago.com/216-243
	Item no.: 216-244 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black	www.wago.com/216-244
	Item no.: 216-262 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray	www.wago.com/216-262
	Item no.: 216-263 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red	www.wago.com/216-263
	Item no.: 216-264 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black	www.wago.com/216-264

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

	<p>Item no.: 216-284 Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black</p>	www.wago.com/216-284
	<p>Item no.: 216-301 Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow</p>	www.wago.com/216-301
	<p>Item no.: 216-302 Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; green</p>	www.wago.com/216-302
	<p>Item no.: 216-321 Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow</p>	www.wago.com/216-321
	<p>Item no.: 216-322 Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; green</p>	www.wago.com/216-322

Downloads

Documentation

Additional Information

Technical explanations	Apr 3, 2019	pdf 3.6 MB	Download
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CAD/CAE-Data

CAD data

2D/3D Models 236-224	URL	Download
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CAE data

EPLAN Data Portal 236-224	URL	Download
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PCB Design

Symbol and Footprint 236-224	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
- Cadence Allegro
- DesignSpark
- Eagle Libraries

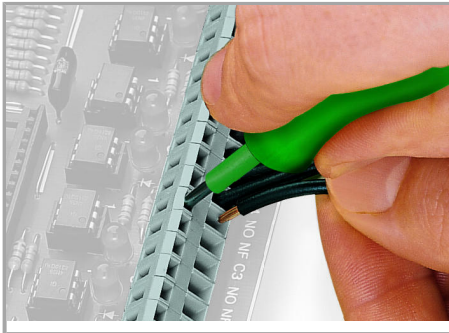
Subject to changes. Please also observe the further product documentation!

- 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

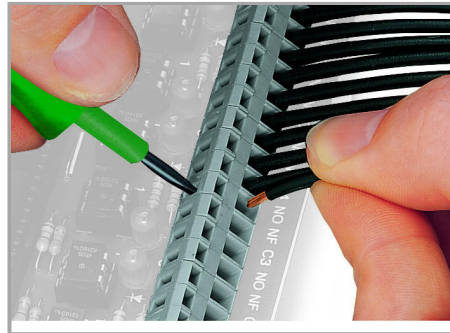
PCB Component Libraries (EDA), PCB CAD Library Ultra Librarian

Installation Notes

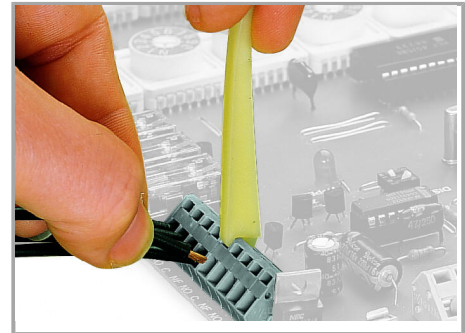
Inserting a conductor



Inserting a conductor via 3.5 mm screwdriver.



Inserting a conductor via 3.5 mm screwdriver.

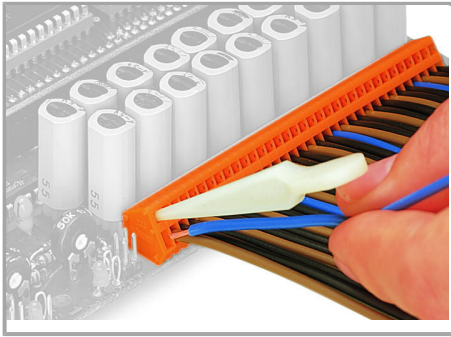


Inserting a conductor via operating tool.

Screwdriver actuation parallel to conductor entry.

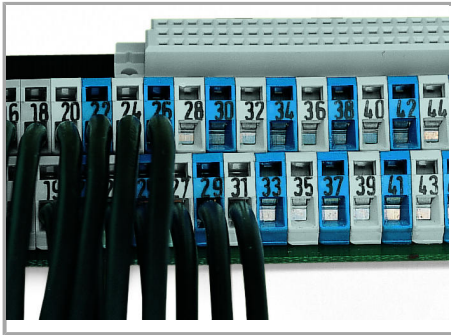
Screwdriver actuation perpendicular to conductor entry.

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.

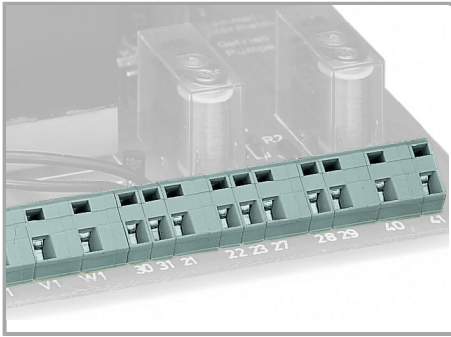
Assembly



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

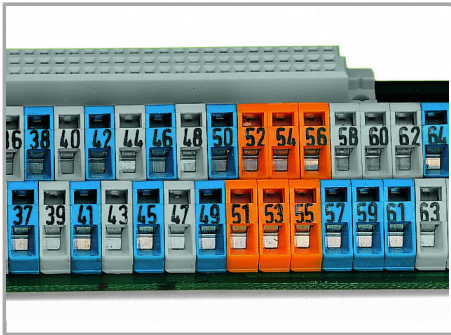
Assembly

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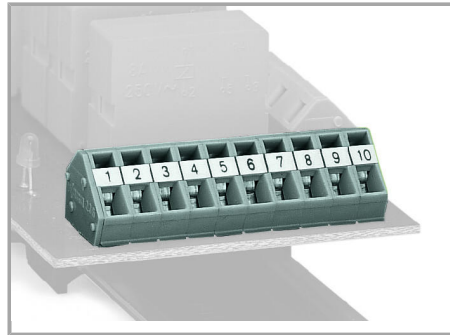


Combining PCB terminal blocks with different pin spacing.

Marking



Labeling via factory direct marking.



Labeling with self-adhesive marking strips.

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