

Data sheet | Item number: 236-148

PCB terminal block; 2.5 mm²; Pin spacing 5/5.08 mm; 48-pole; CAGE CLAMP®; commoning option; 2,50 mm²; gray



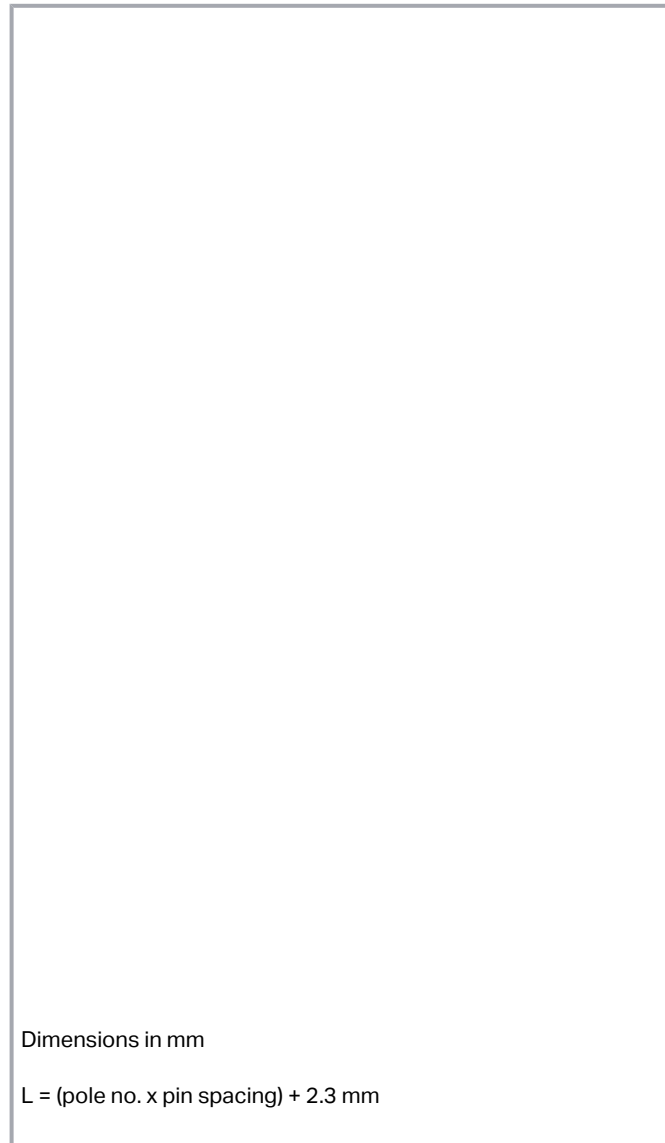
www.wago.com/236-148



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

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Do you have any questions about our products?
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Item description

- PCB terminal strips with CAGE CLAMP[®] connection, 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

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Data Notes

Variants:	Other pole numbers Versions for Ex e II and Ex i Other colors Mixed-color PCB connector strips Direct marking Solder pin length: 3.6 mm Solder pin length: 5.5 mm Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/ .
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Electrical data

Ratings per IEC/EN

Ratings per	IEC/EN 60664-1
Nominal voltage (III/3)	250 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	24 A
Legend (ratings)	(III / 2) $\hat{=}$ Overvoltage category III / Pollution degree 2

Ratings per UL

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

Ratings per CSA

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 points	48
Total number of potentials	48
Number of connection types	1
Number of levels	1

Connection 1

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 insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 1.5 mm ²
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	5 ... 6 mm / 0.2 ... 0.24 inches
Conductor connection direction to PCB	45 °
Pole number	48

Physical data

Pin spacing	5/5.08 mm / 0.197/0.2 inches
Width	242.3 mm / 9.539 inches
Height	17 mm / 0.669 inches
Height from the surface	13 mm / 0.512 inches
Depth	14 mm / 0.551 inches
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.1 ^(+0.1) mm

Plug-in connection

Plugging without loss of pin spacing	No
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PCB contact

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

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



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	Electrolytic copper (E _{Cu})
Contact plating	Tin
Fire load	0.628 MJ
Weight	40.9 g

Environmental requirements

Limit temperature range	-60 ... +105 °C
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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)	20 (5) pcs
Packaging type	box
Country of origin	CH
GTIN	4044918767620
Customs tariff number	85369010000

Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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Approvals / Certificates

General approvals

Logo	Approval	Additional Approval Text	Certificate name
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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	2160584.25
CSA DEKRA Certification B.V.	C22.2 No. 158	1673957
UR Underwriters Laboratories Inc.	UL 1059	E45172

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
	BV Bureau Veritas S.A.	IEC 60998	11915/D0 BV
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE000016Z

Optional accessories

Testing and measuring

Testing accessories

Item no.: 231-128 Testing plug module with contact stud; Pin spacing 5.08 mm / 0.2 in; 2,50 mm ² ; orange	www.wago.com/231-128
Item no.: 231-127 Testing plug module with contact stud; for 236 Series; Pin spacing 5 mm / 0.197 in; 2,50 mm ² ; gray	www.wago.com/231-127

Stickers with operating instructions

Stickers with operating instructions

Item no.: 210-191 Stickers for operating instructions; for PCB terminal blocks; 236 Series	www.wago.com/210-191
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Tool

Operating tool

Item no.: 210-657

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



Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

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; multicoloured

www.wago.com/210-658

Item no.: 210-720

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

www.wago.com/210-720

Item no.: 236-332

Operating tool; natural

www.wago.com/236-332

Item no.: 236-335

Operating tool; gray

www.wago.com/236-335

Ferrule

Ferrule

Item no.: 216-101

Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored

www.wago.com/216-101

Item no.: 216-104

Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated; silver-colored

www.wago.com/216-104

Item no.: 216-102

Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored

www.wago.com/216-102

Item no.: 216-103

Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated

www.wago.com/216-103

Item no.: 216-123

Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; silver-colored

www.wago.com/216-123

Item no.: 216-122

Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored

www.wago.com/216-122

Item no.: 216-124

Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated

www.wago.com/216-124

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 1/08.92

www.wago.com/216-142

Item no.: 216-132

Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated

www.wago.com/216-132

Item no.: 216-121

Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored

www.wago.com/216-121

Item no.: 216-143

Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92

www.wago.com/216-143

Item no.: 216-131

Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated; silver-colored

www.wago.com/216-131

Item no.: 216-141

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Ferrule; Sleeve for 0.5 mm ² / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92	www.wago.com/216-141
Item no.: 216-152 Ferrule; Sleeve for 0.34 mm ² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-152
Item no.: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-203
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.: 216-151 Ferrule; Sleeve for 0.25 mm ² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-151
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.: 216-144 Ferrule; Sleeve for 1.5 mm ² / AWG 16; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored	www.wago.com/216-144
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.: 216-223 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-223
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.: 216-222 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-222
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.: 216-224 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black	www.wago.com/216-224
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.: 216-263 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	

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



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 www.wago.com/216-264

Item no.: 216-262

Ferrule; Sleeve for 0.75 mm² / 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.: 216-301

Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow www.wago.com/216-301

Item no.: 216-321

Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow www.wago.com/216-321

Item no.: 216-322

Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise www.wago.com/216-322

Item no.: 216-302

Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise www.wago.com/216-302

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

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

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

Item no.: 210-332/508-202

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/210-332/508-202

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

Item no.: 210-332/508-204

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/210-332/508-204

Item no.: 210-332/508-206

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/210-332/508-206

Item no.: 210-332/508-205

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/210-332/508-205

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Downloads

Documentation

Additional Information

	2019 年4月3日	pdf 2.0 MB	Download
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Gebrückte Klemmenleisten für Leiterplatten		pdf 187.6 kB	Download
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CAD/CAE-Data

CAD data

2D/3D Models 236-148		URL	Download
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CAE data

EPLAN Data Portal 236-148		URL	Download
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ZUKEN Portal 236-148		URL	Download
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PCB Design

Symbol and Footprint 236-148		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
- 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

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



- 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

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 236-148

[URL](#)

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PCB terminal block; 2.5 mm²; Pin spacing 5/5.08 mm; 48-pole; CAGE CLAMP®; commoning option; 2,50 mm²; 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

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

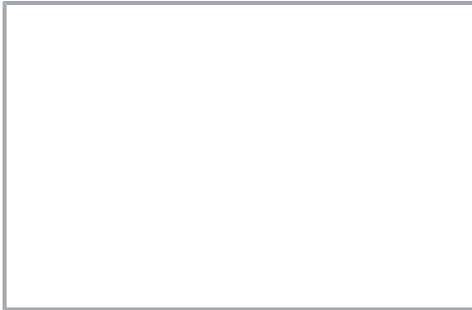


Inserting a conductor via operating tool.



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



Combining PCB terminal blocks with different pin spacing.

Marking

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



Optional: Labeling via factory direct marking.



Optional: Labeling with self-adhesive marking strips possible

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