

Data sheet | Item number: 236-148

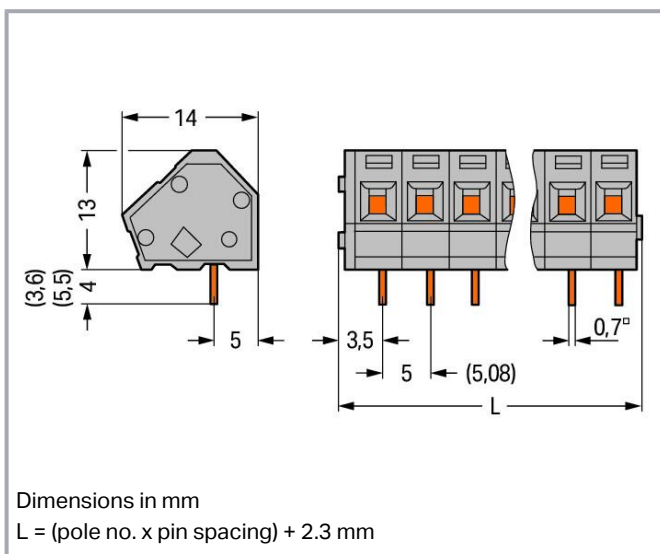
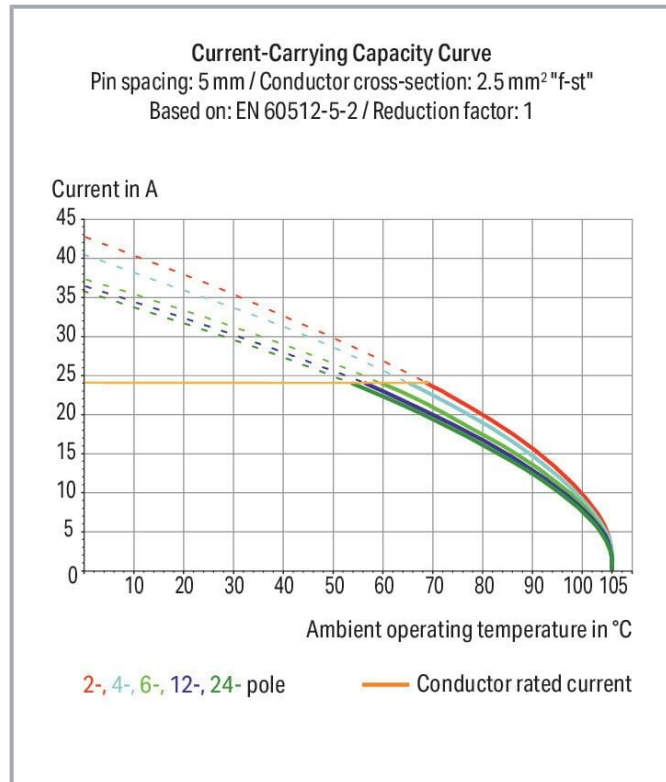
PCB terminal block; 2.5 mm²; Pin spacing 5/5.08 mm; 48-pole; CAGE
CLAMP®; commoning option; 2,50 mm²; gray

www.wago.com/236-148



i Picture differs from the item.

Color:



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

WAGO GmbH & Co. KG
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Phone: +49571 887-0 | Fax: +49571 887-169
Email: info.de@wago.com | Web: www.wago.com

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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

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/>.

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) △ 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

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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

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 mm² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm² / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 1.5 mm²
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

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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	1

Material data

Note (material data)	Information on material specifications can be found here
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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
ECCN	NO DATA
PU (SPU)	20 (5) pcs
Packaging type	box
Country of origin	CH
GTIN	4044918767620
Customs tariff number	85369010000

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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-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

Certificate

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Logo	Approval	Additional Approval Text	name
	BV Bureau Veritas S.A.	IEC 60998	11915/D0 BV
	DNV DNV GL SE	-	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 mm²; 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 mm²; gray

www.wago.com/231-127

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

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Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin platedwww.wago.com/216-132

	Item no.: 216-121 Ferrule; Sleeve for 0.5 mm ² / AWG 22; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-121
	Item no.: 216-143 Ferrule; Sleeve for 1 mm ² / 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 mm ² / AWG 24; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-131
	Item no.: 216-141 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

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

	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 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
	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.: 216-301 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow	www.wago.com/216-301
	Item no.: 216-321 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow	www.wago.com/216-321
	Item no.: 216-322 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; light turquoise	www.wago.com/216-322
	Item no.: 216-302 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; light turquoise	www.wago.com/216-302
Tool		
Operating tool		
	Item no.: 210-657 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

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

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	

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	

Downloads

Documentation

Additional Information

Technical Section	2019 Apr 3	pdf	Download
Technical explanations		2.1 MB	
Gebrückte Klemmenleisten für Leiterplatten		pdf	Download
		187.6 kB	

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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 via Ultra Librarian 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
- Altair
- Altium 6 to current version
- Autodesk Fusion 360
- 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

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- TARGET 3001!
- View Logic ViewDraw
- Quadcept
- Zuken CadStar 3 and 4
- Zuken CR-5000 and CR-8000
- Zuken eCADSTAR 2020 and 2021Zuken CR-5000 and CR-8000

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

Symbol and Footprint via SamacSys 236-148

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:

- 3D (stp)
- Altium
- CADSTAR
- Capture
- CircuitStudio
- CR-5000
- CR-8000
- DEHDL
- DesignSpark PCB
- DesignSpark PCB PRO
- DipTrace
- EAGLE
- Easy-PC
- EasyEDA
- eCADSTAR
- KiCad
- OrCAD_Allegro16
- PADS
- Proteus
- Pulsonix
- Quadcept
- SOLIDWORKS PCB
- TARGET 3001!
- xDX Designer

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■ Xpedition

PCB Component Libraries (EDA), PCB CAD Library SamacSys Electronic Component Search Engine

Asset Administration Shell

Asset Administration Shell 236-148	URL	Download
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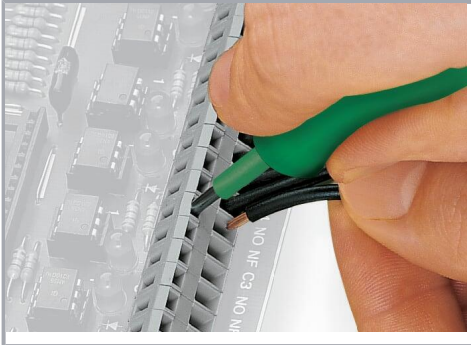
Environmental Product Compliance

Compliance Search

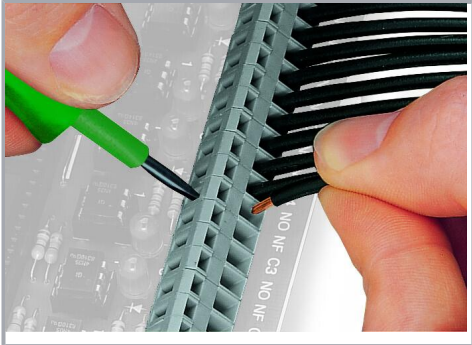
Environmental Product Compliance 236-148	URL	Download
PCB terminal block; 2.5 mm ² ; Pin spacing 5/5.08 mm; 48-pole; CAGE CLAMP®; commoning option; 2,50 mm ² ; gray		

Installation Notes

Conductor termination



Inserting a conductor via 3.5 mm screwdriver. Screwdriver actuation parallel to conductor entry

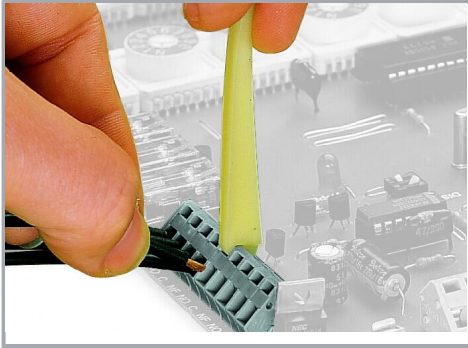


Inserting a conductor via 3.5 mm screwdriver. Screwdriver actuation perpendicular to conductor entry

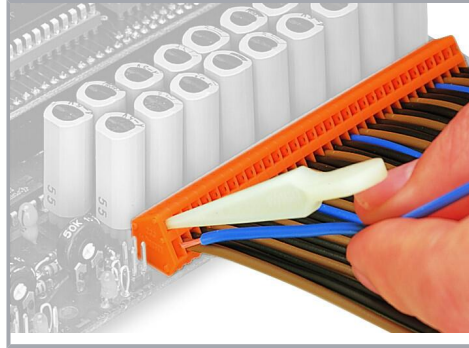
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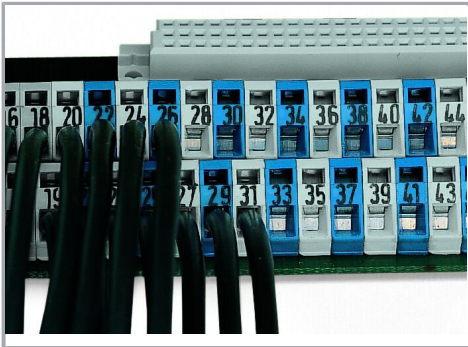


Inserting a conductor via operating tool.



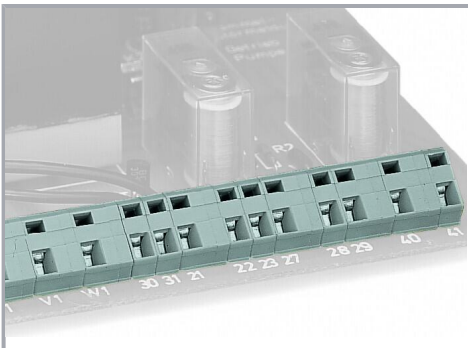
Compared to standard screwdrivers, these operating tools are far more convenient for wiring PCB terminal strips at factory.

Installation



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

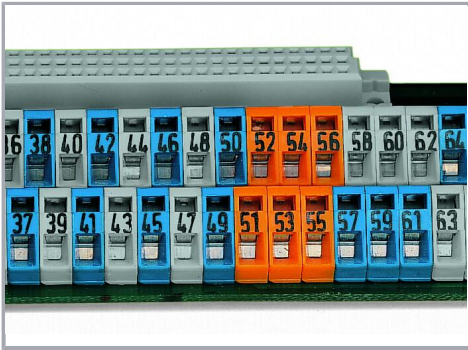
Installation



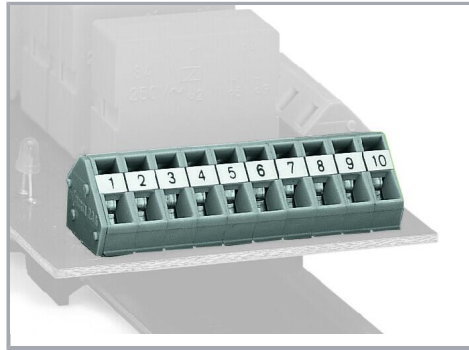
Combining PCB terminal blocks with different pin spacing.

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!

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