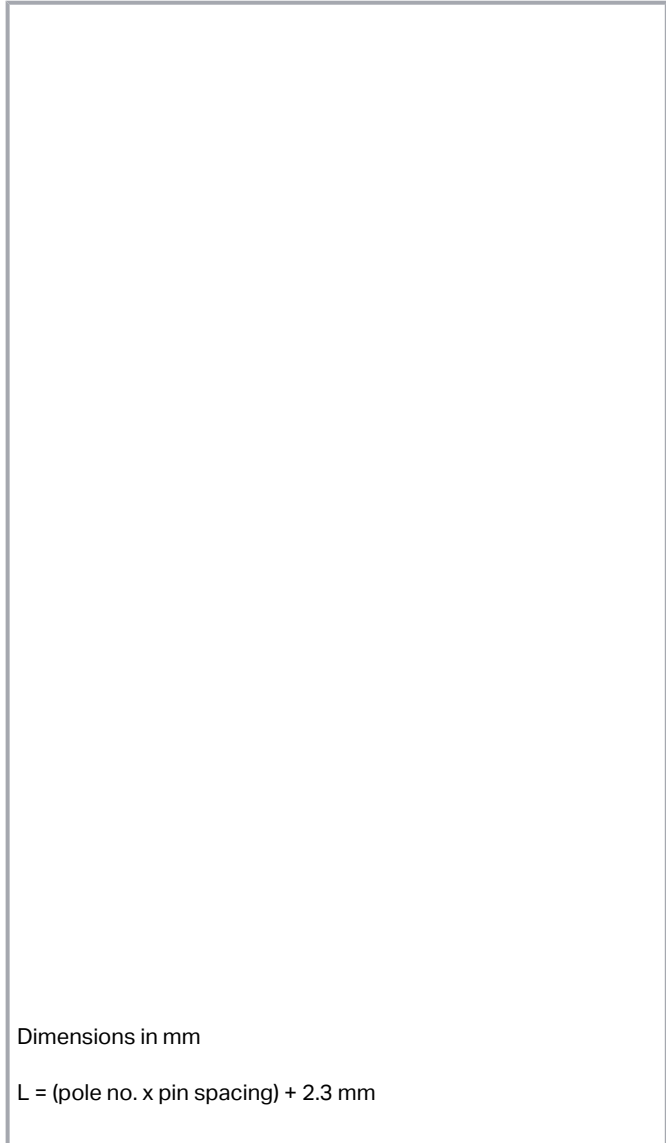
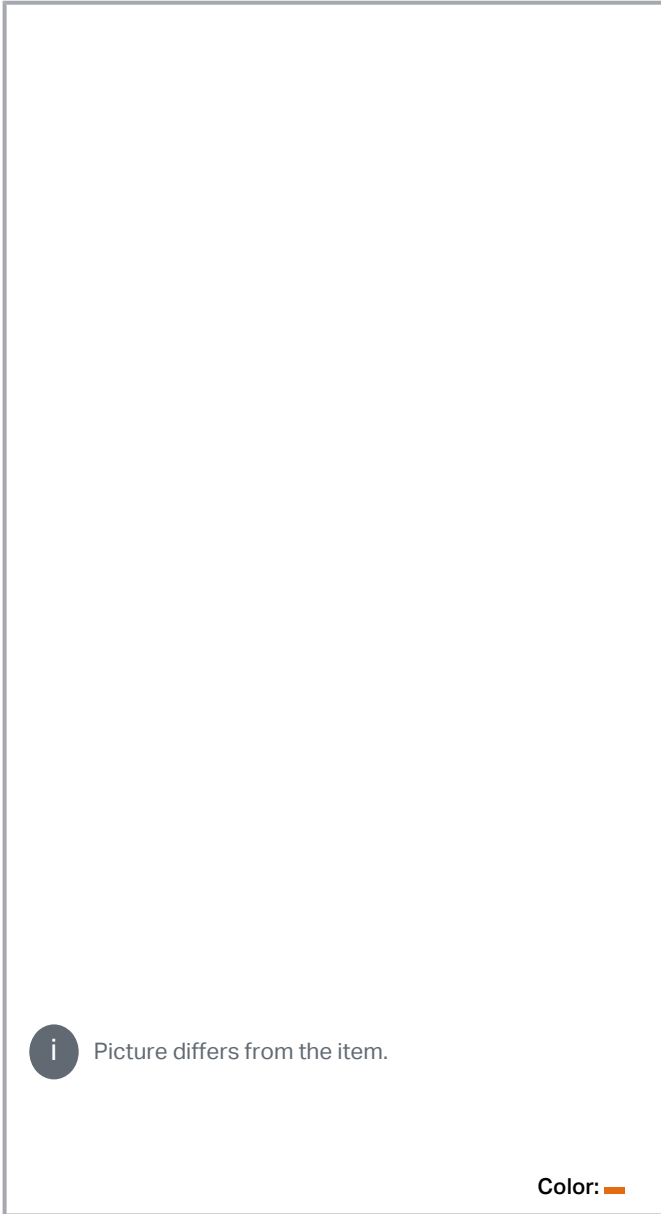


Data sheet | Item number: 233-408

PCB terminal block; 0.5 mm²; Pin spacing 2.54 mm; 8-pole; CAGE CLAMP®;
0,50 mm²; orange

www.wago.com/233-408



Item description

- Compact terminal strips with CAGE CLAMP® connection and screwdriver actuation parallel or perpendicular to conductor entry

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

WAGO Corporation
Germantown, WI 53022
Phone: 1-800-DIN-RAIL (346-7245) | Fax: (262) 255-6222
Email: info.us@wago.com | Web: www.wago.us

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



- Double solder pins for high mechanical stability
- Custom color combinations

**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

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) \triangleq 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	8
-----------------------------------	---

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

WAGO Corporation
 Germantown, WI 53022
 Phone: 1-800-DIN-RAIL (346-7245) | Fax: (262) 255-6222
 Email: info.us@wago.com | Web: www.wago.us

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



Total number of potentials	8
Number of connection types	1
Number of levels	1

Connection 1

Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Solid conductor	0.08 ... 0.5 mm ² / 28 ... 20 AWG
Fine-stranded conductor	0.08 ... 0.5 mm ² / 28 ... 20 AWG
Fine-stranded conductor; with insulated ferrule	0.25 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 mm ²
Note (conductor cross-section)	Terminating 0.75 mm ² /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	8

Physical data

Pin spacing	2.54 mm / 0.1 inch
Width	22.62 mm / 0.891 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	orange
Material group	I

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

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-plated
Fire load	0.044 MJ
Weight	2.8 g

Environmental requirements





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

Commercial data

Product Group	4 (Printed Circuit)
PU (SPU)	220 (55) Stück
Packaging type	box
Country of origin	CH
GTIN	4045454049997
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

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




KEMA/KEUR
DEKRA Certification B.V.


EN 60947-7-4

71-111040

Ship Approvals

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

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL UL International Germany GmbH	UL 1059	E45172

Optional accessories

Marking accessories

Marking strip

Item no.: 210-331/250-207 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	www.wago.com/210-331/250-207
Item no.: 210-331/250-202 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	www.wago.com/210-331/250-202
Item no.: 210-331/254-204 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	www.wago.com/210-331/254-204
Item no.: 210-331/250-204 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	www.wago.com/210-331/250-204
Item no.: 210-331/254-206 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	www.wago.com/210-331/254-206

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

WAGO Corporation
Germantown, WI 53022
Phone: 1-800-DIN-RAIL (346-7245) | Fax: (262) 255-6222
Email: info.us@wago.com | Web: www.wago.us

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



Item no.: 210-331/250-206 www.wago.com/210-331/250-206
 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

Item no.: 210-331/254-202 www.wago.com/210-331/254-202
 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

Item no.: 210-331/254-207 www.wago.com/210-331/254-207
 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

Ferrules

Ferrule

Item no.: 216-131 www.wago.com/216-131
 Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated; silver-colored

Item no.: 216-151 www.wago.com/216-151
 Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated

Item no.: 216-301 www.wago.com/216-301
 Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow

Item no.: 216-321 www.wago.com/216-321
 Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow

Tools

Operating tool

Item no.: 210-648 www.wago.com/210-648
 Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; angled; short

Item no.: 210-647 www.wago.com/210-647
 Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured

Item no.: 210-719 www.wago.com/210-719
 Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

Item no.: 233-332 www.wago.com/233-332
 Operating tool; made of insulating material; white

Item no.: 233-331 www.wago.com/233-331
 Operating tool; insulated; yellow

Item no.: 233-335 www.wago.com/233-335
 Operating tool; yellow

Downloads

Documentation

Additional Information

Technical explanations	2019 Apr 3	pdf	Download
------------------------	------------	-----	----------

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



2.0 MB

pdf Download
125.0 kB

CAD files

CAE data

EPLAN Data Portal 233-408 URL Download

ZUKEN Portal 233-408 URL Download

PCB Design

Symbol and Footprint 233-408 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 233-408	URL	Download
----------------------	-----	----------

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 233-408	URL	Download
PCB terminal block; 0.5 mm ² ; Pin spacing 2.54 mm; 8-pole; CAGE CLAMP®; 0,50 mm ² ; orange		

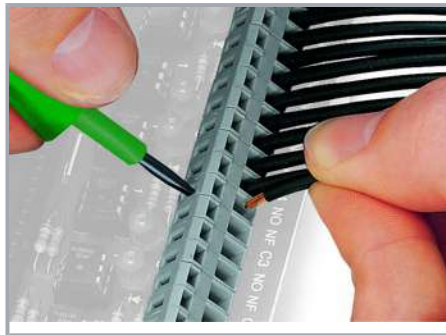
Installation Notes

Conductor termination



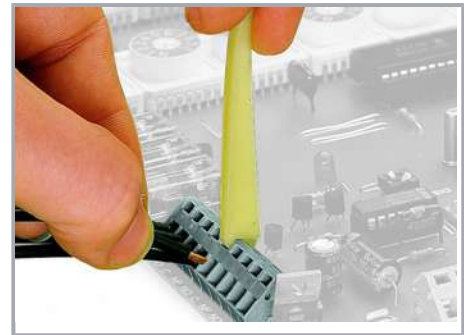
Inserting a conductor via 3.5 mm screwdriver.

Screwdriver actuation parallel to conductor entry



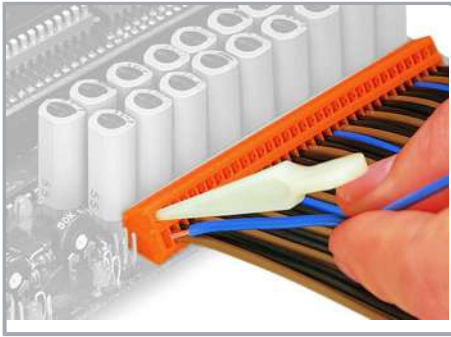
Inserting a conductor via 3.5 mm screwdriver.

Screwdriver actuation perpendicular to conductor entry



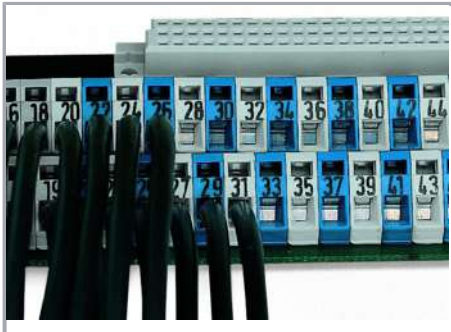
Inserting a conductor via operating tool.

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.

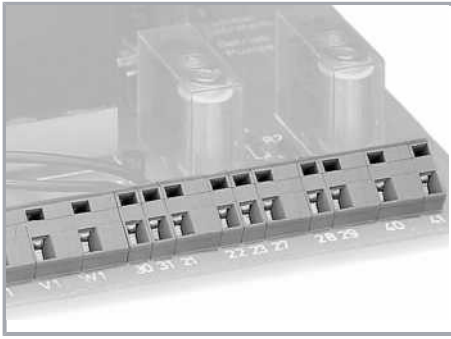
Installation



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

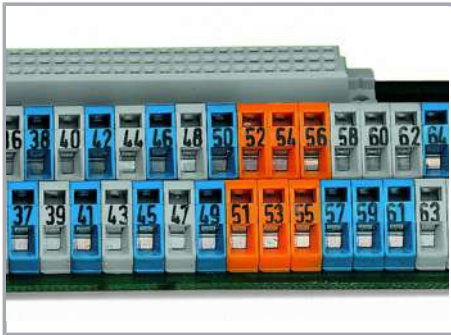
Installation

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

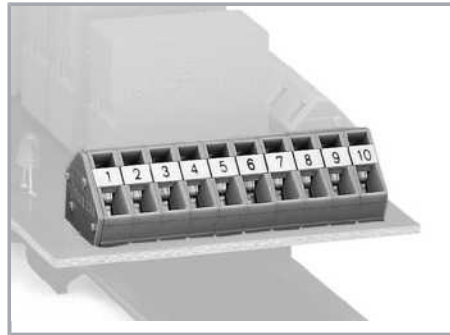


Combining PCB terminal blocks with different pin spacing.

Marking



Labeling via factory direct marking.



Optional: Labeling with self-adhesive marking strips possible

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