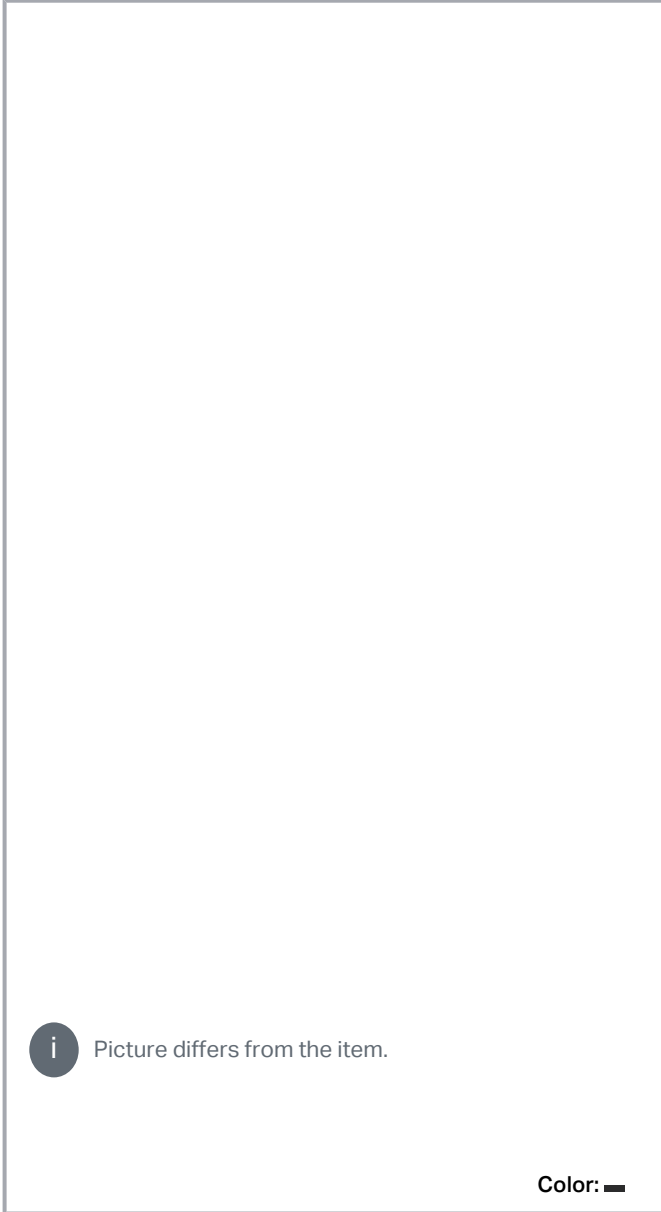


Data sheet | Item number: 235-778

Stackable PCB terminal block; push-button; 1.5 mm²; Pin spacing 3.81 mm;
1-pole; Push-in CAGE CLAMP®; 1,50 mm²; black



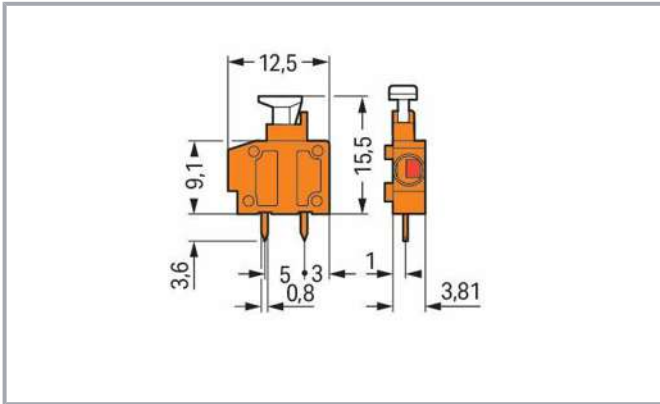
www.wago.com/235-778



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 description

- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons

Data

Notes

Variants:

Other colors

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)	200 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
Nominal voltage (II/2)	500 V
Rated surge voltage (II/2)	4 kV
Rated current	17.5 A
Legend (ratings)	(III / 2) ≙ Overvoltage category III / Pollution degree 2

UL Approvals

Approvals per	UL 1059
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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

CSA Approvals

Approvals per	CSA
Rated voltage CSA (Use Group B)	300 V
Rated current CSA (Use Group B)	10 A

Connection data

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

Connection 1

Connection technology	Push-in CAGE CLAMP®
Actuation type	Push-button
Solid conductor	0.5 ... 1.5 mm ² / 20 ... 16 AWG
Fine-stranded conductor	0.75 ... 1.5 mm ² / 20 ... 16 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 1 mm ²
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch
Conductor connection direction to PCB	0°
Number of poles	1

Physical data

Pin spacing	3.81 mm / 0.15 inch
Width	5.3 mm / 0.209 inch
Height	19.1 mm / 0.752 inch
Height from the surface	15.5 mm / 0.61 inch
Depth	12.5 mm / 0.492 inch
Solder pin length	3.6 mm
Solder pin dimensions	0.4 x 0.8 mm
Drilled hole diameter with tolerance	1 ^(+0.1) mm

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

PCB contact

PCB Contact	THT
Solder pin arrangement	within the terminal block (in-line)
Number of solder pins per potential	2

Material data

Color	black
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-plated
Fire load	0.01 MJ
Weight	0.6 g

Environmental requirements


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

Product Group	4 (Printed Circuit)
PU (SPU)	800 (100) Stück
Packaging type	box
Country of origin	CN
GTIN	4044918833028
Customs tariff number	8536904000

Approvals / Certificates




Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	CCA DEKRA Certification B.V.	EN 60947	NTR NL- 7144
	CCA	EN 60947	2149549.02


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

DEKRA Certification B.V.



	CCA DEKRA Certification B.V.	EN 60998	NTR NL 6919
	CCA DEKRA Certification B.V.	EN 60947-7-4	NTR NL- 7774
	VDE VDE Prüf- und Zertifizierungsinstitut	EN 60947	40029328

Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	19- HG1869876- PDA

Required accessories

End plates

End plate	
Item no.: 235-850 End plate; snap-fit type; 1 mm thick; white	www.wago.com/235-850
Item no.: 235-800 End plate; snap-fit type; 1 mm thick; red	www.wago.com/235-800
Item no.: 235-100 End plate; snap-fit type; 1 mm thick; gray	www.wago.com/235-100
Item no.: 235-500 End plate; snap-fit type; 1 mm thick; black	www.wago.com/235-500
Item no.: 235-600 End plate; snap-fit type; 1 mm thick; orange	www.wago.com/235-600
Item no.: 235-700 End plate; snap-fit type; 1 mm thick; light green	www.wago.com/235-700

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**Item no.: 235-550**

End plate; snap-fit type; 1 mm thick; yellow

www.wago.com/235-550**Item no.: 235-200**

End plate; snap-fit type; 1 mm thick; dark gray

www.wago.com/235-200**Item no.: 235-400**

End plate; snap-fit type; 1 mm thick; blue

www.wago.com/235-400**Optional accessories****Marking accessories**

Marking strip

Item no.: 210-332/381-202

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/210-332/381-202**Item no.: 210-332/381-206**

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/210-332/381-206**Item no.: 210-332/381-205**

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/210-332/381-205**Item no.: 210-332/381-204**

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/210-332/381-204**Tools**

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.: 210-720**

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

www.wago.com/210-720**Ferrules**

Ferrule

Item no.: 216-101Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-coloredwww.wago.com/216-101**Item no.: 216-102**Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-coloredwww.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.: 216-123**Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; silver-coloredwww.wago.com/216-123

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









Item no.: 216-122 Ferrule; Sleeve for 0.75 mm ² / AWG 20; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-122
Item no.: 216-142 Ferrule; Sleeve for 0.75 mm ² / 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 mm ² / AWG 24; uninsulated; electro-tin plated	www.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.: 216-201 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.: 216-243 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped;	www.wago.com/216-243

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



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

	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.: 216-262 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; green	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

Mounting

Intermediate plate		
	Item no.: 235-316 Spacer; for doubling the pin spacing; orange	www.wago.com/235-316

Downloads

Documentation

Additional Information

Technical explanations	2019 Apr 3	pdf 2.0 MB	Download
		pdf 125.0 kB	Download

CAD files

CAD data

2D/3D Models 235-778	URL	Download
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CAE data

EPLAN Data Portal 235-778	URL	Download
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ZUKEN Portal 235-778	URL	Download
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PCB Design

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Symbol and Footprint 235-778

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
- Zuken CR-5000 and CR-8000

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

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 235-778

[URL](#)

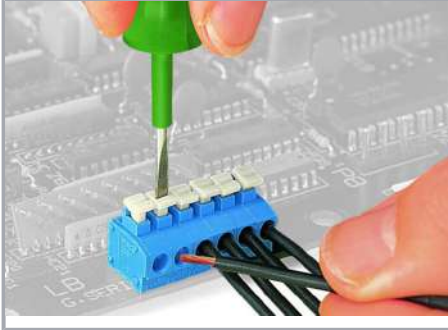
[Download](#)

Stackable PCB terminal block; push-button; 1.5 mm²; Pin spacing 3.81 mm; 1-pole;
Push-in CAGE CLAMP®; 1,50 mm²; black

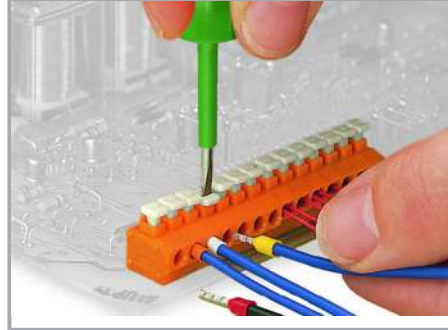
Subject to changes. Please also observe the further product documentation!

Installation Notes

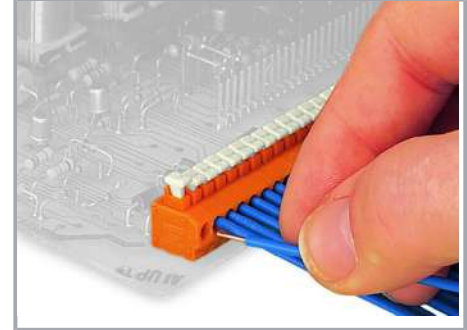
Conductor termination



Inserting/removing fine-stranded conductors via push-button.

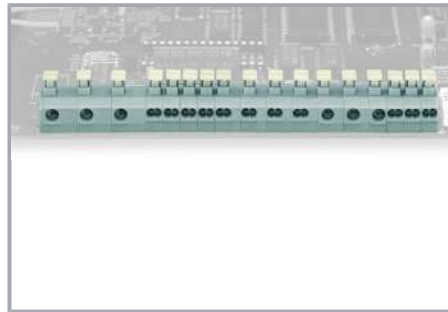


Insert/remove fine-stranded conductors with ferrules via push-button.



Insert solid conductors via push-in termination.

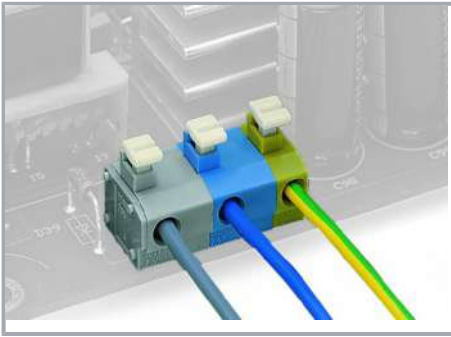
Installation



Combining 1- and 2-conductor terminal blocks with different pin spacing.

Testing

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



Application example: field-wiring terminal strip

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