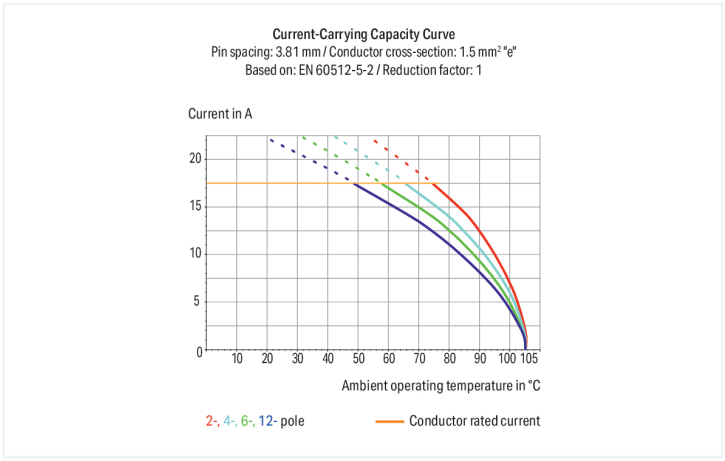
Data Sheet | Item Number: 235-770

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

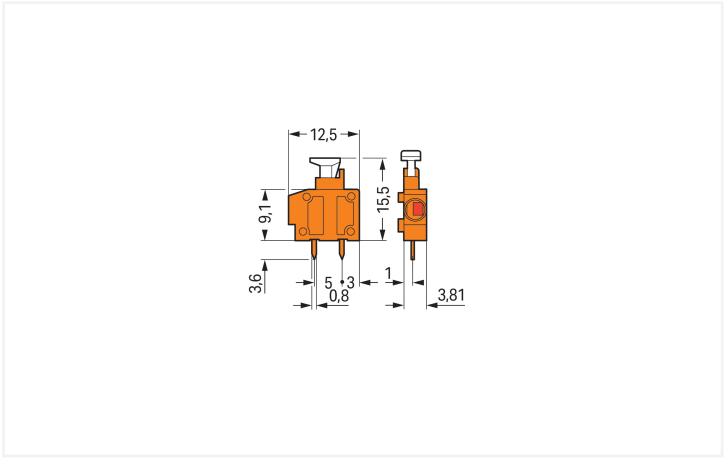
https://www.wago.com/235-770





Color: red

Similar to illustration



Dimensions in mm

PCB terminal block, 235 Series, solder pin dimensions 0.4 x 0.8 mm

Easily, quickly and safely connect conductors with this PCB terminal block (item number 235-770). You can rely on trusted safety with these PCB terminal blocks, perfect for a wide variety of applications when designing your devices. Ensure that the strip lengths are between 9 and 10 mm when connecting conductors to this PCB terminal block. Featuring one conductor terminal along with Push-in CAGE CLAMP®, this connector is highly versatile. Our Push-in CAGE CLAMP® is a universal, maintenance-free connection solution for all conductor types, offering a key advantage: It allows direct insertion of both solid and fine-stranded conductors with ferrules without needing tools. No preparation is required; for example, crimping the conductor's ferrule is not necessary. Dimensions: (5.3 x 19.1 x 12.5) mm (width x height x depth). This PCB terminal block is suitable for conductor cross sections ranging from 0.5 mm² to 1.5 mm².

Tin is used for coating the contact surfaces. A push-button is used to operate this PCB terminal block. The PCB terminal block is designed for THT soldering. The conductor is designed to be inserted at a 0° angle..

Notes

General safety information	**NOTICE: Observe installation and safety instructions!** **To be sold only with installation instructions!**
Variants:	Other colors Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

Electrical data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	200 V	320 V	500 V
Rated impulse withstand voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A

Approvals per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	-
Rated current	10 A	-	-

Approvals per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data

Clamping units	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 mm² / 20 … 16 AWG
Fine-stranded conductor	0.75 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1 mm²
Note (conductor cross-section)	Fine-stranded conductor 0.75 … 1.5 mm² / 18 … 16 AWG (I max. 4 A)
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Conductor connection direction to PCB	0 °
Pole number	1

Physical data

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

Continued on next page

PCB contact

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

Material data

Note (material data)	Information on material specifications can be found here
Color	red
Material group	I
Insulation material (main housing)	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	0.009 MJ
Weight	0.6 g

Environmental requirements

Limit temperature range	-60 … +105 °C

Commercial data

Product Group	4 (Printed Circuit Connectors)
PU (SPU)	800 (100) pcs
Packaging type	Box
Country of origin	CN
GTIN	4044918907453
Customs tariff number	85369010000

Product Classification

UNSPSC	39121409
eCl@ss 10.0	27-44-04-01
eCl@ss 9.0	27-44-04-01
ETIM 9.0	EC002643
ETIM 10.0	EC002643
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

RoHS Compliance Status	Compliant,No Exemption

Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947	NTR NL-7144
CCA DEKRA Certification B.V.	EN 60998	NTR NL 6919
CCA DEKRA Certification B.V.	EN 60947-7-4	NTR NL-7774

General approvals

KEMA/KEUR DEKRA Certification B.V.	EN 60947	2160584.38

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Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for marine applications

Approval	Standard	Certificate Name
ABS American Bureau of Shipping	-	24-0095975-PDA
DNV DNV GL SE	-	TAE000016Z

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 235-770

Documentation

Safety Data Sheet

Handling and Safety Instructions of PCB Terminal Blocks with Push-In Cage Clamp	pdf 393.90 KB	

Additional Information

Technical Section	03.04.2019	pdf 2027.26 KB

CAD/CAE-Data

CAD data

2D/3D Models 235-770

CAE data

ZUKEN Portal 235-770

PCB Design

Symbol and Footprint via SamacSys 235-770

Symbol and Footprint via Ultra Librarian 235-770

Continued on next page

1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate



Item No.: 235-500
End plate; snap-fit type; 1 mm thick; black



Item No.: 235-400
End plate; snap-fit type; 1 mm thick; blue



Item No.: 235-200
End plate; snap-fit type; 1 mm thick; dark gray



Item No.: 235-100
End plate; snap-fit type; 1 mm thick; gray



Item No.: 235-700
End plate; snap-fit type; 1 mm thick; light green



Item No.: 235-600
End plate; snap-fit type; 1 mm thick; orange



Item No.: 235-800
End plate; snap-fit type; 1 mm thick; red



Item No.: 235-850
End plate; snap-fit type; 1 mm thick; white



Item No.: 235-550
End plate; snap-fit type; 1 mm thick; yellow

1.2 Optional Accessories

1.2.1 Ferrule

1.2.1.1 Ferrule

Item No.: 216-241
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white

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 1/08.92

Item No.: 216-242
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

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

Item No.: 216-243
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red

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

1.2.2 Installation

1.2.2.1 Intermediate plate



Item No.: 235-316
Spacer; for doubling the pin spacing; orange

Continued on next page

1.2.3 Marking

1.2.3.1 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



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



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



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

1.2.4 Tool

1.2.4.1 Operating tool



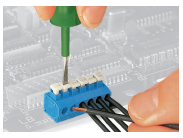
Item No.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured



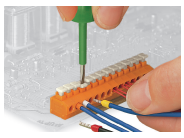
Item No.: 210-657
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

Installation Notes

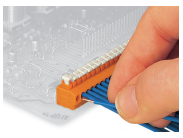
Conductor termination



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

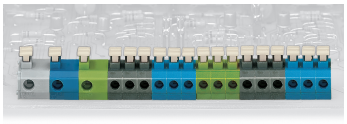


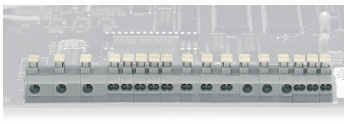
Insert/remove fine-stranded conductors with ferrules via push-button.



Insert solid conductors via push-in termination.

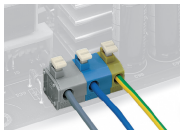
Installation





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

Testing



Application example: field-wiring terminal strip