PCB terminal block; 2.5 mm²; Pin spacing 5/5.08 mm; 5-pole; PUSH WIRE[®]; gray https://www.wago.com/254-455

Similar to illustration







Dimensions in mm L = (pole no. x pin spacing) + 1.5 mm



PCB terminal block, 254 Series, gray

This PCB terminal block (item number 254-455) is designed for quick and easy connections. You can count on trusted safety with these PCB terminal blocks, perfect for a host of applications when designing your devices. Our PCB terminal block is rated for 320 V and is designed to handle a rated current of up to 24 A. As such, it is suitable for high-load applications. Conductors should only be connected to this PCB terminal block if their strip length is between 10 mm and 12 mm. This product features one conductor terminal and utilizes PUSH WIRE®. Our tried-and-tested PUSH WIRE® connection offers the fastest method for clamping conductors. It utilizes the conductor's stiffness to overcome the clamping spring's contact force. The dimensions are 26.5 x 19.7 x 13.5 mm (width x height x depth). This PCB terminal block is suitable for conductor cross sections ranging from 0.5 mm² to 2.5 mm². Up to five potentials / five poles can be connected to this terminal strip using five clamping points on one level. The clamping spring is made of chrome-nickel spring steel (CrNi), the contacts are made of electrolytic copper (ECu), and the gray housing is made of polyamide (PA66) for insulation. Tin is used for coating the contact surfaces. This PCB terminal block is operated with an operating tool. THT is used to assemble the PCB terminal block. The conductor is designed to be inserted at a 45° angle.. The solder pins are organized over the entire terminal strip (in-line) and are 0.5 x 0.75 mm and 4 mm in length. Each potential has two solder pins.

Notes

Color: gray

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/.

https://www.wago.com/254-455



10 ... 12 mm / 0.39 ... 0.47 inches

45°

5

IEC/EN 60664-1		
III	III	Ш
3	2	2
320 V	320 V	630 V
4 kV	4 kV	4 kV
24 A	24 A	24 A
	CSA	
В	С	D
300 V	-	300 V
10 A	-	10 A
	III 3 320 V 4 kV 24 A B 300 V	III III 3 2 320 V 320 V 4 kV 4 kV 24 A 24 A CSA B C 300 V -

Approvals per		UL 1059	
Use group	В	С	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection data				
Clamping units	5		Connection 1	
Total number of potentials	5		Connection technology	PUSH WIRE®
Number of connection types	1		Actuation type	Operating tool
Number of levels 1	Solid conductor	0.5 2.5 mm² / 20 12 AWG		
	Fine-stranded conductor; with insulated ferrule	0.5 1.5 mm²		
	Fine-stranded conductor; with uninsula- ted ferrule	0.5 1.5 mm²		
			Note (conductor cross-section)	12 AWG: THHN, THWN

Strip length

Pole number

Conductor connection direction to PCB

Physical data	
Pin spacing	5/5.08 mm / 0.197/0.2 inches
Width	26.5 mm / 1.043 inches
Height	19.7 mm / 0.776 inches
Height from the surface	15.7 mm / 0.618 inches
Depth	13.5 mm / 0.531 inches
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

https://www.wago.com/254-455

Material data



Note (material data)	
	Information on material specifications can be found here
Color	gray
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	VO
Clamping spring material	Chrome-nickel spring steel (CrNi)
Contact material	Electrolytic copper (E _{cu})
Contact Plating	Tin
Fire load	0.095 MJ
Weight	5.4 g

Environmental	requirements
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Limit temperature range

-60...+105 °C

Commercial data	
Product Group	4 (Printed Circuit Connectors)
PU (SPU)	180 (45) pcs
Packaging type	Box
Country of origin	PL
GTIN	4044918940634
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 8.0	EC002643
ECCN	NO US CLASSIFICATION

Environmental Product Compliance	
RoHS Compliance Status	Compliant,No Exemption

Approvals / Certificates

General approvals

CCA 🕃	91 °
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Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947	NTR NL 7375
CSA DEKRA Certification B.V.	C22.2	70154033
UR Underwriters Laboratories Inc.	UL 1059	E45172

Approvals for marine applications

	DNV DNVCOULD	
Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	-	14-HG1241537-PDA
BV Bureau Veritas S.A.	IEC 60998	11915/D0 BV
DNV DNV GL SE	-	TAE000016Z

https://www.wago.com/254-455



Documentation			
Additional Information			
Technical Section	03.04.2019	pdf 2027.26 KB	\downarrow

CAD/CAE-Data	
CAD data	CAE data
2D/3D Models 254-455	EPLAN Data Portal 254-455
	ZUKEN Portal 254-455

PCB Design	
Symbol and Footprint via SamacSys 254-455	\downarrow
Symbol and Footprint via Ultra Librarian 254-455	\downarrow

1 Compatible Products

1.1 Optional Accessories

1.1.1 Ferrule

1.1.1.1 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.: 216-142

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.: 216-244

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

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.: 216-243

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.: 216-264

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

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.: 216-263

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.: 216-284

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

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

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

Item No.: 216-144

Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored

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https://www.wago.com/254-455

1.1.2 Marking

1.1.2.1 Marking strip

Item No.: 210-332/500-202

Marking strips; as a DIN A4 sheet; MAR-KED; 1-16 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

Item No.: 210-332/500-204

Marking strips; as a DIN A4 sheet; MAR-KED; 17-32 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

Item No.: 210-332/508-202

Marking strips; as a DIN A4 sheet; MAR-KED; 1-16 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

Item No.: 210-332/508-204

Marking strips; as a DIN A4 sheet; MAR-KED; 17-32 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

Item No.: 210-332/500-205

Marking strips; as a DIN A4 sheet; MAR-KED; 1-32 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

Item No.: 210-332/500-206

Marking strips; as a DIN A4 sheet; MAR-KED; 33-48 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

Item No.: 210-332/508-205

Marking strips; as a DIN A4 sheet; MAR-KED; 1-32 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

Item No.: 210-332/508-206

Marking strips; as a DIN A4 sheet; MAR-KED; 33-48 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

1.1.3 Test and measurement

1.1.3.1 Testing accessories

Item No.: 210-136 Test plug; 2 mm Ø; with 500 mm cable; red

1.1.4 Tool

1.1.4.1 Operating tool

Item No.: 210-658

multicoloured



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



Operating tool; Blade: 3.5 x 0.5 mm; with a

partially insulated shaft; angled; short;

Insert solid conductors via push-in termination.



Inserting a tip-bonded conductor via screwdriver.



Removing a solid conductor.



Inserting/removing a ferruled conductor.



https://www.wago.com/254-455

Marking





Labeling via self-adhesive marking strips.

Labeling via factory direct marking.

Testing



Testing with 2 mm Ø test plug.

Application





Mixed terminal strips can be assembled using different housing colors for the formation of groups.

Mixed terminal strips can be assembled using different pin spacing and housing colors for the formation of groups.



Application example: field-wiring terminal strip



Current addresses can be found at:: <u>www.wago.com</u>

