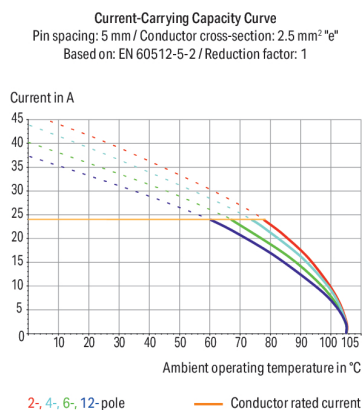


<https://www.wago.com/254-451>

[illegible]

Dimensions in mm



Connect conductors quickly and safely with this PCB terminal block (item number 254-451). It offers the flexibility needed for different mounting types. Our PCB terminal block is rated for 320 V and is designed to handle a rated current of up to 24 A. It can therefore be used in high-load applications. Strip lengths must be between 10 mm and 12 mm when connecting conductors to this PCB terminal block. This product features one conductor terminal and utilizes PUSH WIRE®. Our PUSH WIRE® connection uses the stiffness of the conductor to overcome the clamping spring's contact force, allowing you to clamp the conductor in place more quickly and easily. The item's dimensions are 6.7 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. It features one level and a clamping point that you can use to connect a single potential / 1 pole. The contacts are made of electrolytic copper (ECu), the clamping spring is made of chrome-nickel spring steel (CrNi), 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. Insert the conductor into the board at a 45° angle.. The solder pins measure 0.5 x 0.75 mm in cross-section and 4 mm in length and are arranged within the terminal block (in-line). There are two solder pins per potential.

Variants:

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			Approvals per	
		UL 1059				
Overvoltage category	III	III	II	Use group	B	C
Pollution degree	3	2	2	Rated voltage	300 V	-
Nominal voltage	320 V	320 V	630 V	Rated current	10 A	-
Rated surge voltage	4 kV	4 kV	4 kV			
Rated current	24 A	24 A	24 A			

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

Connection data			
Clamping units	1	Connection 1	
Total number of potentials	1	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 uninsulated ferrule	0.5 ... 1.5 mm²
		Note (conductor cross-section)	12 AWG: THHN, THWN
		Strip length	10 ... 12 mm / 0.39 ... 0.47 inches
		Conductor connection direction to PCB	45 °
		Pole number	1

Physical data	
Pin spacing	5/5.08 mm / 0.197/0.2 inches
Width	6.7 mm / 0.264 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	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	gray	
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	0.018 MJ	
Weight	1 g	

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

Commercial data	
Product Group	4 (Printed Circuit Connectors)
PU (SPU)	500 (100) pcs
Packaging type	Box
Country of origin	PL
GTIN	4044918940597
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			Approvals for marine applications		
Approval	Standard	Certificate Name	Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947	NTR NL 7375	ABS American Bureau of Ship- ping	-	14-HG1241537-PDA
CSA DEKRA Certification B.V.	C22.2	70154033	BV Bureau Veritas S.A.	IEC 60998	11915/D0 BV
UR Underwriters Laboratories Inc.	UL 1059	E45172	DNV DNV GL SE	-	TAE000016Z

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 254-451

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Documentation

Additional Information

Technical Section

03.04.2019

pdf

2027.26 KB

↓

CAD/CAE-Data

CAD data

2D/3D Models 254-451

↓

CAE data

EPLAN Data Portal 254-451

↓

ZUKEN Portal 254-451

↓

PCB Design

Symbol and Footprint via SamacSys 254-451

↓

Symbol and Footprint via Ultra Librarian 254-451


↓

1 Compatible Products


1.1 Required Accessories

1.1.1 End plate


1.1.1.1 End plate




[Item No.: 254-400](#)
End plate; 1 mm thick; snap-fit type; blue




[Item No.: 254-200](#)
End plate; 1 mm thick; snap-fit type; dark gray




[Item No.: 254-100](#)
End plate; 1 mm thick; snap-fit type; gray



[Item No.: 254-300](#)
End plate; 1 mm thick; snap-fit type; light gray



[Item No.: 254-700](#)
End plate; 1 mm thick; snap-fit type; light green



[Item No.: 254-600](#)
End plate; 1 mm thick; snap-fit type; orange

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Continued on next page













Downloaded from [Arrow.com](#)



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; un-insulated; 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.: 216-262 Ferrule; Sleeve for 0.75 mm² / 18 AWG; un-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; un-insulated; 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.: 216-263 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.: 216-143 Ferrule; Sleeve for 1 mm² / AWG 18; un-insulated; 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.: 216-264 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.: 216-284 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.: 216-144 Ferrule; Sleeve for 1.5 mm² / AWG 16; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored


1.2.2 Marking

1.2.2.1 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	 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	 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	 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
 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	 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	 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	 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

1.2.3 Test and measurement

1.2.3.1 Testing accessories

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

1.2.4.1 Operating tool



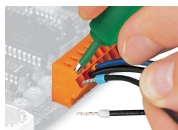
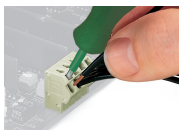
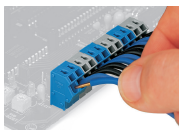
Item No.: 210-658
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured

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



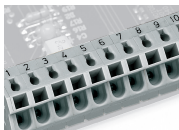
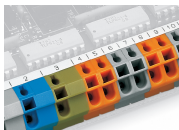
Insert solid conductors via push-in termination.

Inserting a tip-bonded conductor via screwdriver.

Removing a solid conductor.

Inserting/removing a ferruled conductor.

Marking



Labeling via self-adhesive marking strips.

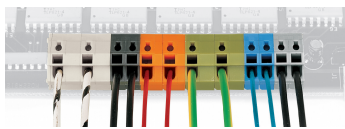
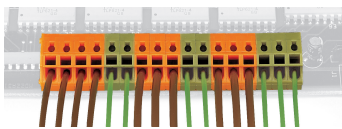
Labeling via factory direct marking.

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