

Data Sheet | Item Number: 254-452

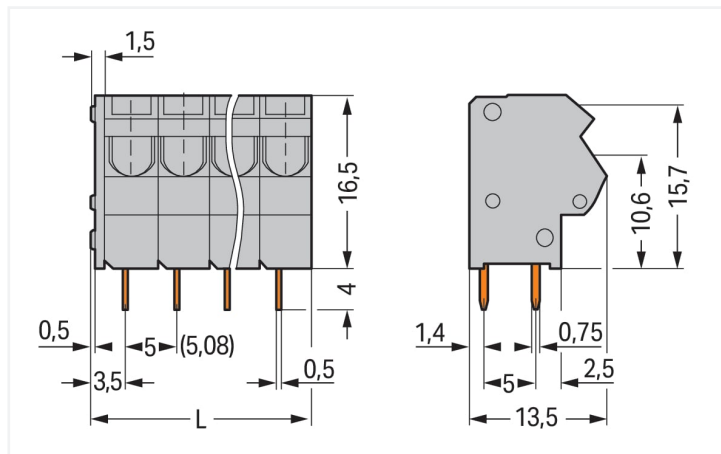
PCB terminal block; 2.5 mm²; Pin spacing 5/5.08 mm; 2-pole; PUSH WIRE®; 2,50 mm²; gray

<https://www.wago.com/254-452>



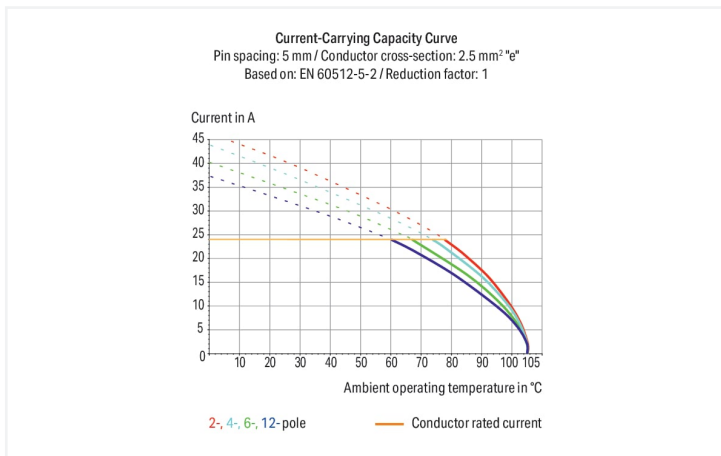
Color: ■ gray

Similar to illustration



Dimensions in mm

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



- PCB terminal strips with screwdriver-actuated PUSH WIRE® termination
- Push-in termination of solid and ferruled, fine-stranded conductors
- Test socket for 2 mm Ø test plug
- Save space on the PCB, just 8.9 mm deep

Notes

Variants:

Direct marking
Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.
Other pole numbers
Other colors
Mixed-color PCB connector strips

Electrical data

Ratings per	IEC/EN 60664-1		
	III	III	II
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	320 V	320 V	630 V
Rated surge voltage	4 kV	4 kV	4 kV
Rated current	24 A	24 A	24 A

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

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

Connection data

Clamping units	2	Connection 1	
Total number of potentials	2	Connection technology	PUSH WIRE®
Number of connection types	1	Actuation type	Operating tool
Number of levels	1	Solid conductor	0.5 ... 2.5 mm ² / 20 ... 12 AWG
		Fine-stranded conductor; with insulated ferrule	0.5 ... 1.5 mm ²
		Fine-stranded conductor; with uninsulated ferrule	0.5 ... 1.5 mm ²
		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	2

Physical data

Pin spacing	5/5.08 mm / 0.197/0.2 inches
Width	11.5 mm / 0.453 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

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	0.041 MJ
Weight	2.3 g

Environmental requirements

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

Product Group	4 (Printed Circuit Connectors)
eCl@ss 10.0	27-44-04-01
eCl@ss 9.0	27-44-04-01
ETIM 9.0	EC002643
ETIM 8.0	EC002643
PU (SPU)	420 (105) pcs
Packaging type	Box
Country of origin	PL
GTIN	4044918940603
Customs tariff number	85369010000

Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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Approvals / Certificates

General approvals



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



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

Downloads

Environmental Product Compliance


Compliance Search	
Environmental Product Compliance 254-452	↓

Documentation


Additional Information			
Technical Section	03.04.2019	pdf 2027.26 KB	↓


CAD/CAE-Data

CAD data

2D/3D Models 254-452 


CAE data

EPLAN Data Portal 254-452 

ZUKEN Portal 254-452 

PCB Design

Symbol and Footprint via SamacSys 254-452 













Symbol and Footprint via Ultra Librarian 254-452 

1 Compatible Products

1.1 Optional Accessories









1.1.1 Ferrule

1.1.1.1 Ferrule

			
<p>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</p>	<p>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</p>	<p>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</p>	<p>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</p>
			
<p>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</p>	<p>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</p>	<p>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</p>	<p>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</p>
			
<p>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</p>	<p>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</p>	<p>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</p>	<p>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</p>

1.1.2 Marking

1.1.2.1 Marking strip

			
<p>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</p>	<p>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</p>	<p>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</p>	<p>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</p>
			
<p>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</p>	<p>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</p>	<p>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</p>	<p>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</p>

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

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

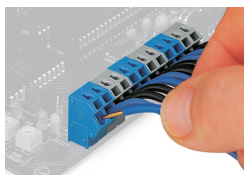


Item No.: 210-657

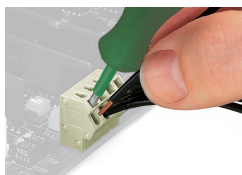
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

Installation Notes

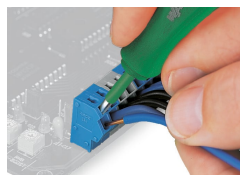
Conductor termination



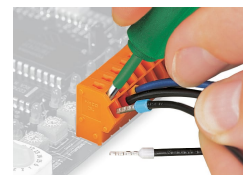
Insert solid conductors via push-in termination.



Inserting a tip-bonded conductor via screwdriver.

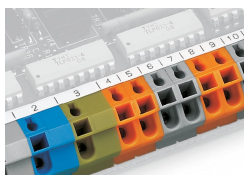


Removing a solid conductor.

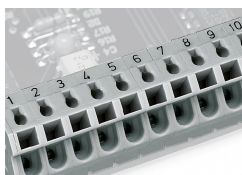


Inserting/removing a ferruled conductor.

Marking

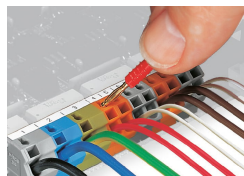


Labeling via self-adhesive marking strips.



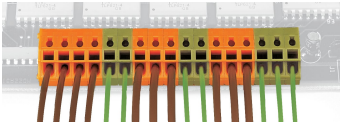
Labeling via factory direct marking.

Testing

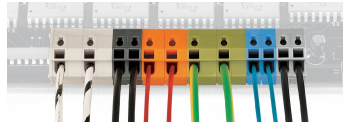


Testing with 2 mm Ø test plug.

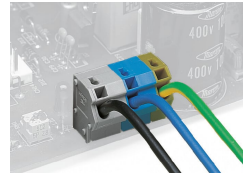
Application



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