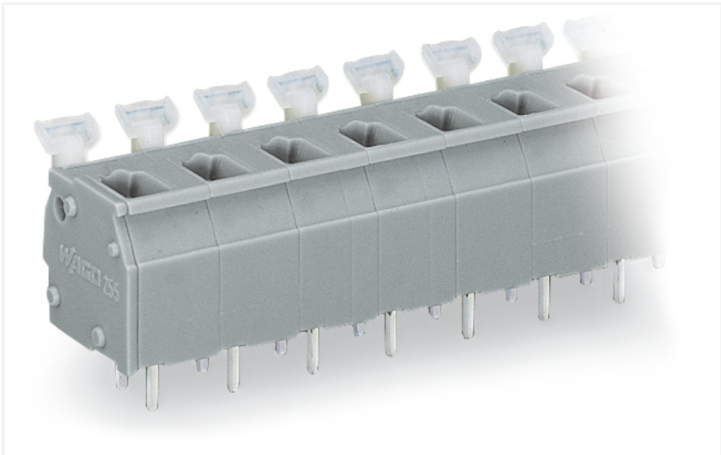


Data Sheet | Item Number: 255-509

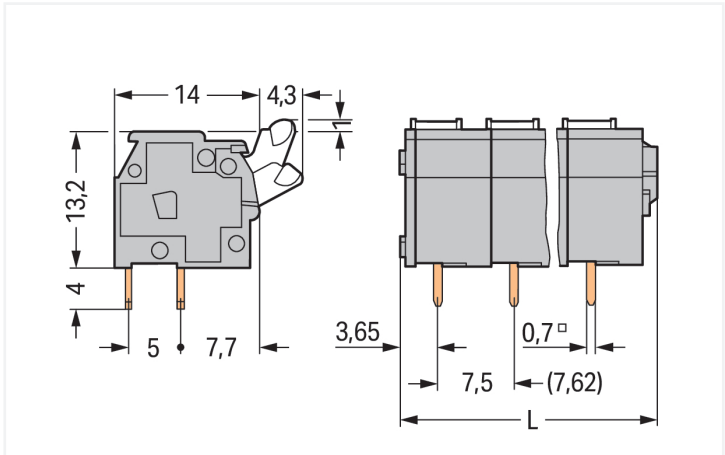
PCB terminal block; push-button; 2.5 mm²; Pin spacing 7.5/7.62 mm; 9-pole; CAGE CLAMP®; commoning option; gray

<https://www.wago.com/255-509>

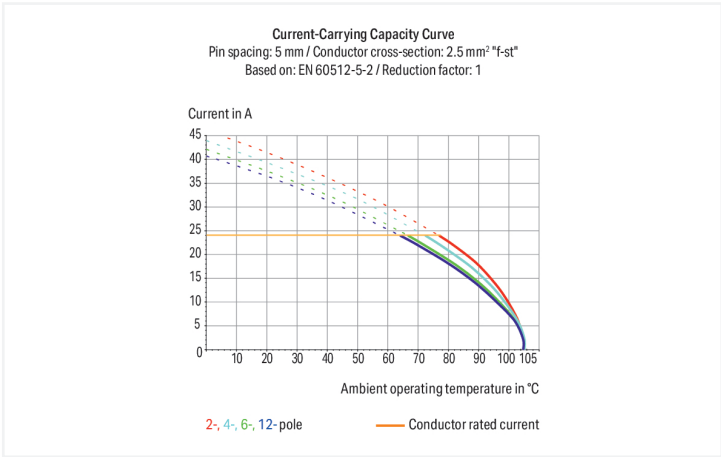


Color: ■ gray

Similar to illustration



Dimensions in mm  
L = (pole no. x pin spacing) + 2.9 mm



PCB terminal block, 255 Series, solder pin dimensions 0.7 x 0.7 mm

This PCB terminal block (item number 255-509) streamlines wire connections, making them both quick and easy. It is ideal for custom installations with different mounting types. Rated current and voltage are important parameters when selecting a PCB terminal block, as they indicate how the product can be used. This product has a rated voltage of 630 V and a rated current of 24 A, making it suitable for high-load applications. Strip lengths must be between 5 mm and 6 mm when connecting conductors to this PCB terminal block. Featuring one conductor terminal along with CAGE CLAMP®, this product delivers reliable performance. Our highly-rated and maintenance-free CAGE CLAMP® connection makes it easy to connect all conductor types without having to prepare the conductor. For example, you don't need to crimp ferrules. Dimensions: 70.4 x 18.2 x 18.3 mm (width x height x depth). This PCB terminal block is suitable for conductor cross sections ranging from 0.08 mm² to 2.5 mm². Up to nine potentials / nine poles can be connected to this terminal strip using nine clamping points on one level. 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. The contact surface is coated with tin. A push-button is used to operate this PCB terminal block. THT is used to solder the PCB terminal block. The conductor is designed to be inserted into the board at an angle of 90°. The solder pins are organized over the entire terminal strip (in-line). They are 0.7 x 0.7 mm and 4 mm in length. Each potential has two solder pins.

Notes	
Variants:	Other pole numbers Versions for Ex e II and Ex i Other colors Mixed-color PCB connector strips Direct marking Other versions (or variants) can be requested from WAGO Sales or configured at <a href="https://configurator.wago.com/">https://configurator.wago.com/</a> .



Electrical data

Ratings per IEC/EN 60664-1				Approvals per UL 1059			
Overvoltage category	III	III	II	Use group	B	C	D
Pollution degree	3	2	2	Rated voltage	300 V	-	300 V
Nominal voltage	500 V	630 V	1000 V	Rated current	15 A	-	10 A
Rated surge voltage	6 kV	6 kV	6 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	15 A	-	10 A

Connection data

Clamping units	9	Connection 1	
Total number of potentials	9	Connection technology	CAGE CLAMP®
Number of connection types	1	Actuation type	Push-button
Number of levels	1	Solid conductor	0.08 ... 2.5 mm² / 25 ... 12 AWG
		Fine-stranded conductor	0.08 ... 2.5 mm² / 28 ... 12 AWG
		Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm²
		Fine-stranded conductor; with uninsulated ferrule	0.25 ... 1.5 mm²
		Note (conductor cross-section)	12 AWG: THHN, THWN
		Strip length	5 ... 6 mm / 0.2 ... 0.24 inches
		Conductor connection direction to PCB	90 °
		Pole number	9

Physical data

Pin spacing	7.5/7.62 mm / 0.295/0.3 inches
Width	70.4 mm / 2.772 inches
Height	18.2 mm / 0.717 inches
Height from the surface	14.2 mm / 0.559 inches
Depth	18.3 mm / 0.72 inches
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 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)		<a href="#">Information on material specifications can be found here</a>
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 <sub>cu</sub> )	
Contact Plating	Tin	
Fire load	0.276 MJ	
Weight	13.1 g	

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

Commercial data	
Product Group	4 (Printed Circuit Connectors)
PU (SPU)	60 (15) pcs
Packaging type	Box
Country of origin	CH
GTIN	4044918661690
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		Declarations of conformity and manufacturer's declarations									
											
Approval	Standard	Certificate Name									
CCA DEKRA Certification B.V.	EN 60947	2160584.40									
CCA DEKRA Certification B.V.	EN 60947	NTR NL-7146									
CCA DEKRA Certification B.V.	EN 60947-7-4	71-113038									
CCA DEKRA Certification B.V.	IEC 60947-7-4	NTR NL-7822									
		<table><tr><th>Approval</th><th>Standard</th><th>Certificate Name</th></tr><tr><td>EU-Declaration of Confor- mity WAGO GmbH &amp; Co. KG</td><td>-</td><td>-</td></tr><tr><td>UK-Declaration of Confor- mity WAGO GmbH &amp; Co. KG</td><td>-</td><td>-</td></tr></table>	Approval	Standard	Certificate Name	EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-	UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
Approval	Standard	Certificate Name									
EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-									
UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-									




Approvals for marine applications



		
Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	-	19-HG1869876-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 255-509




Documentation

Additional Information			
Technical Section	03.04.2019	pdf 2027.26 KB	
Gebrückte Klemmen- leisten für Leiterplatten		pdf 303.71 KB	


































CAD/CAE-Data

CAD data
2D/3D Models 255-509


CAE data
EPLAN Data Portal 255-509

ZUKEN Portal 255-509


PCB Design
Symbol and Footprint via SamacSys 255-509

Symbol and Footprint via Ultra Librarian 255-509




1 Compatible Products			
1.1 Optional Accessories			
1.1.1 Ferrule			
1.1.1.1 Ferrule			
			
<b>Item No.: 216-301</b> Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow	<b>Item No.: 216-321</b> Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow	<b>Item No.: 216-151</b> Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated	<b>Item No.: 216-131</b> Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated; silver-colored
			
<b>Item No.: 216-302</b> Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise	<b>Item No.: 216-322</b> Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise	<b>Item No.: 216-132</b> Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated	<b>Item No.: 216-152</b> Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated
			
<b>Item No.: 216-201</b> Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; acc. to DIN 46228, Part 4/09.90; white	<b>Item No.: 216-241</b> 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	<b>Item No.: 216-221</b> Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white	<b>Item No.: 216-141</b> Ferrule; Sleeve for 0.5 mm² / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92
			
<b>Item No.: 216-101</b> Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored	<b>Item No.: 216-121</b> Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored	<b>Item No.: 216-242</b> 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	<b>Item No.: 216-262</b> 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
			
<b>Item No.: 216-202</b> Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray	<b>Item No.: 216-222</b> Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray	<b>Item No.: 216-142</b> Ferrule; Sleeve for 0.75 mm² / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92	<b>Item No.: 216-102</b> Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored
			
<b>Item No.: 216-122</b> Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored	<b>Item No.: 216-243</b> Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red	<b>Item No.: 216-263</b> Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red	<b>Item No.: 216-203</b> Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red
			
<b>Item No.: 216-223</b> Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red	<b>Item No.: 216-103</b> Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated	<b>Item No.: 216-143</b> Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92	<b>Item No.: 216-123</b> Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; silver-colored
			
<b>Item No.: 216-204</b> Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black	<b>Item No.: 216-224</b> Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black	<b>Item No.: 216-244</b> 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	<b>Item No.: 216-264</b> 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
			
<b>Item No.: 216-284</b> 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	<b>Item No.: 216-124</b> Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated	<b>Item No.: 216-144</b> 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	<b>Item No.: 216-104</b> Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated; silver-colored

1.1.2 Marking

1.1.2.1 Marking strip



**Item No.: 210-833**  
Marking strips; 25 m on roll; 6 mm wide; plain; Self-adhesive; white



**Item No.: 210-332/750-020**  
Marking strips; as a DIN A4 sheet; MARKED; 1-20 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white



**Item No.: 210-332/762-020**  
Marking strips; as a DIN A4 sheet; MARKED; 1-20 (80x); 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.: 249-112**  
Test plug adapter; suitable for 255, 256, 257 Series PCB terminal blocks; 1-pole; Pin spacing 7.5 mm / 0.295 in; gray



**Item No.: 249-113**  
Test plug adapter; suitable for 255, 256, 257 Series PCB terminal blocks; 1-pole; Pin spacing 7.62 mm / 0.3 in; orange

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



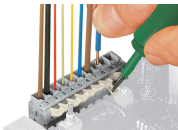
**Item No.: 210-720**  
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

Installation Notes

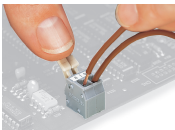
Conductor termination



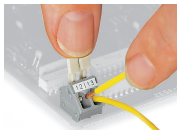
Inserting/removing a conductor – 256 Series.



Inserting/removing a conductor (255 Series)



Inserting/removing a conductor via finger-operated lever – 255 Series.



Inserting/removing a conductor via finger-operated lever – 256 Series.

Installation



Possible conductor arrangement with terminal strips staggered (for 256 Series only).

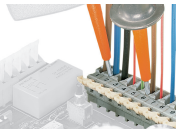


Marking



Formation of groups using housings of different colors

Testing



Testing with test probes.



Testing with test plug modules.