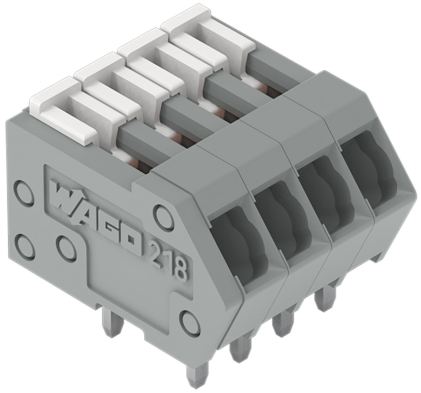
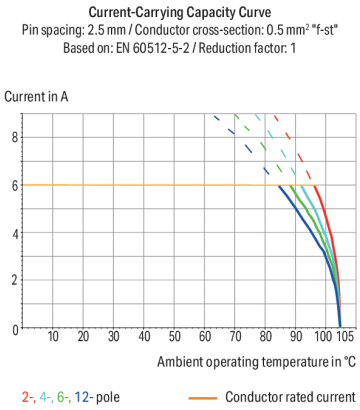
Data Sheet | Item Number: 218-109

PCB terminal block; Locking slides; 0.5 mm²; Pin spacing 2.5 mm; 9-pole; CAGE CLAMP®; gray

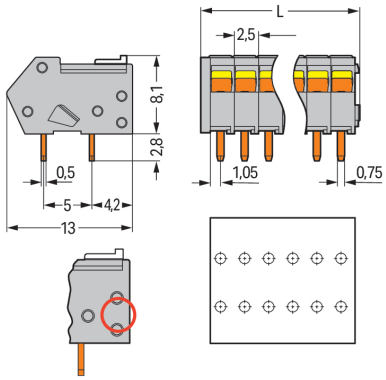
https://www.wago.com/218-109





Color: gray

Similar to illustration



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

PCB terminal block, 218 Series, gray

This PCB terminal block (item number 218-109) is designed for simple and secure connections. It is perfect for custom installations with different mounting types. Conductors should only be connected to this PCB terminal block if their strip length is between 5 and 6 mm . Featuring one conductor terminal along with CAGE CLAMP®, this connector outperforms the competition. Our celebrated universal connection known as CAGE CLAMP® leads the way when it comes to connection technology and electrical interconnections. Dimensions: (24 x 10.9 x 13) mm (width x height x depth). This PCB terminal block is suitable for conductor cross sections ranging from 0.08 mm² to 0.5 mm².

The contact surface is coated with tin. A slider is used to operate this PCB terminal block. The PCB terminal block is designed for THT soldering. The conductor is designed to be inserted into the board at a 40° angle..

Notes

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/.

Electrical data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	80 V	160 V	320 V
Rated impulse withstand voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	6 A	6 A	6 A

Approvals per	UL 1059		
Use group	B	C	D
Rated voltage	150 V	-	-
Rated current	4 A	-	-

Approvals per	CSA		
Use group	B	C	D
Rated voltage	150 V	-	-
Rated current	4 A	-	-

Connection Data

Clamping units	9
Total number of potentials	9
Number of connection types	1
Number of levels	1

Connection 1

Connection technology	CAGE CLAMP®
Actuation type	Slider
Solid conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor; with insulated ferrule	0.25 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 mm²
Note (conductor cross-section)	Terminating 0.75 mm²/18 AWG conductors is possible; however insulation diameter allows only every other clamping unit to be terminated with this conductor size.
Strip length	5 … 6 mm / 0.2 … 0.24 inches
Conductor connection direction to PCB	40 °
Pole number	9

Physical data

Pin spacing	2.5 mm / 0.098 inches
Width	24 mm / 0.945 inches
Height	10.9 mm / 0.429 inches
Height from the surface	8.1 mm / 0.319 inches
Depth	13 mm / 0.512 inches
Solder pin length	2.8 mm
Solder pin dimensions	0.5 x 0.75 mm
Drilled hole diameter	1.1 $^{(+0.1)}$ mm

Continued on next page

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	0.038 MJ
Weight	3 g

Environmental requirements

Limit temperature range	-60 … +105 °C

Commercial data

Product Group	4 (Printed Circuit Connectors)
PU (SPU)	200 (50) pcs
Packaging type	Box
Country of origin	PL
GTIN	4044918877855
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-7076
CCA DEKRA Certification B.V.	EN 60947-7-4	NTR NL-7785
CCA DEKRA Certification B.V.	EN 60947-7-4	77-111038

General approvals

CSA DEKRA Certification B.V.	C22.2 No. 158	1565656
ENEC DEKRA Certification B.V.	EN 60947	2160584.01
UL UL International Germany GmbH	UL 1059	E45172

Continued on next page

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	-	-

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 218-109

Documentation

Additional Information

Technical Section	03.04.2019	pdf 2027.26 KB

CAD/CAE-Data

CAD data

2D/3D Models 218-109

CAE data

EPLAN Data Portal 218-109

ZUKEN Portal 218-109

PCB Design

Symbol and Footprint via SamacSys 218-109

Symbol and Footprint via Ultra Librarian 218-109

Continued on next page

1 Compatible Products

1.1 Optional Accessories

1.1.1 Ferrule

1.1.1.1 Ferrule



Item No.: 216-321
Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow



Item No.: 216-151
Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated; silver-colored

1.1.2 Marking

1.1.2.1 Marking strip

Item No.: 210-331/250-202
Marking strips; as a DIN A4 sheet; MARKED; 1-16 (400x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white



Item No.: 210-331/250-207
Marking strips; as a DIN A4 sheet; MARKED; 1-48 (100x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white

Item No.: 210-331/250-204
Marking strips; as a DIN A4 sheet; MARKED; 17-32 (400x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white



Item No.: 210-331/250-206
Marking strips; as a DIN A4 sheet; MARKED; 33-48 (400x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white

1.1.3 Test and measurement

1.1.3.1 Testing accessories



Item No.: 735-500
WAGO Test pin; 1 mm Ø; 30 V AC / 60 V DC; CAT0; 1 A; 6 mm uninsulated; Test lead for soldering up to 0,5mm²

1.1.4 Tool

1.1.4.1 Operating tool



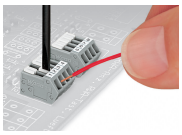
Item No.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft



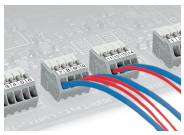
Item No.: 210-647
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured

Installation Notes

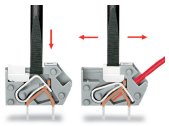
Conductor termination



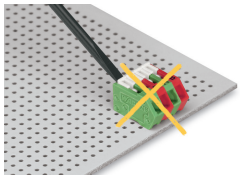
Terminating stranded conductors in confined spaces requires a great deal of patience, unless you use the new 218 Series PCB Terminal Strips. The clamping units of these strips can be held open during termination process via integrated locking slide.



Terminating 0.75 mm²/18 AWG conductors is possible; however insulation diameter allows only every other clamping unit to be terminated with this conductor size.



Conductor termination: To momentarily open the clamping unit, use screwdriver and then insert a stripped conductor. To open clamping unit for an extended period, move locking slide toward conductor entry hole. Then fully insert stripped conductor and move locking slide back to original position (also possible to perform with fingernail).

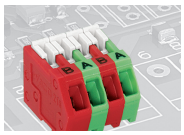


Incorrect – do not operate the locking slides from the back.

Marking

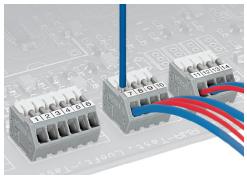


Labeling with self-adhesive marking strips.



Labeling via factory direct marking.

Testing



Testing directly on the clamping spring.