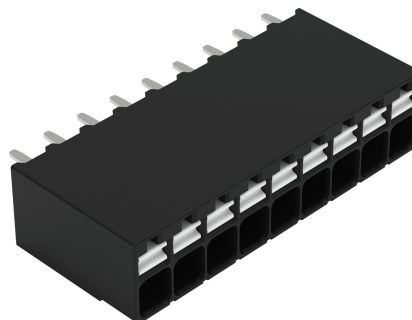
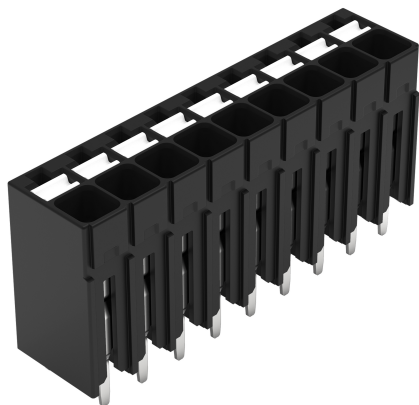


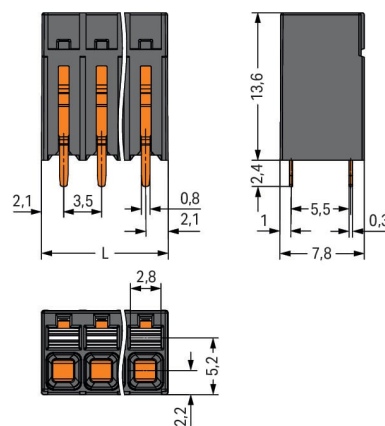
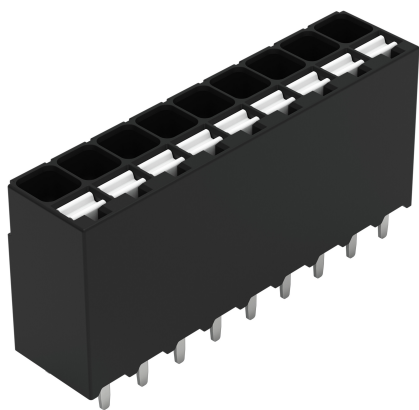
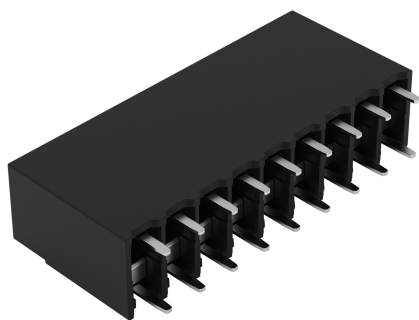
Data Sheet | Item Number: 2086-1109

THR PCB terminal block; push-button; 1.5 mm²; Pin spacing 3.5 mm; 9-pole; Push-in
CAGE CLAMP®; 1,50 mm²; black

<https://www.wago.com/2086-1109>

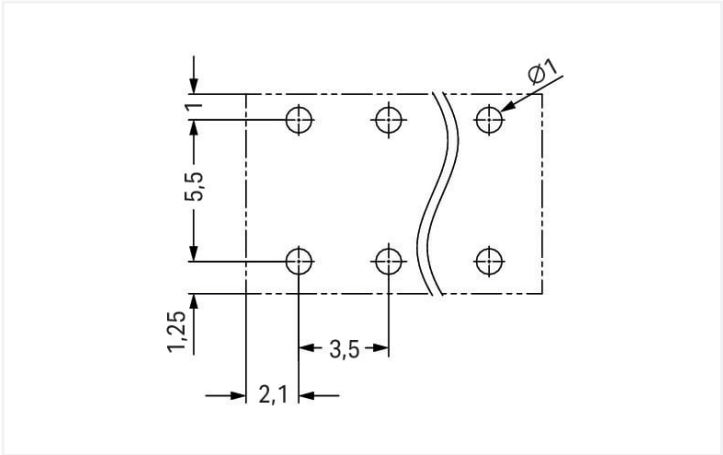


Color: black

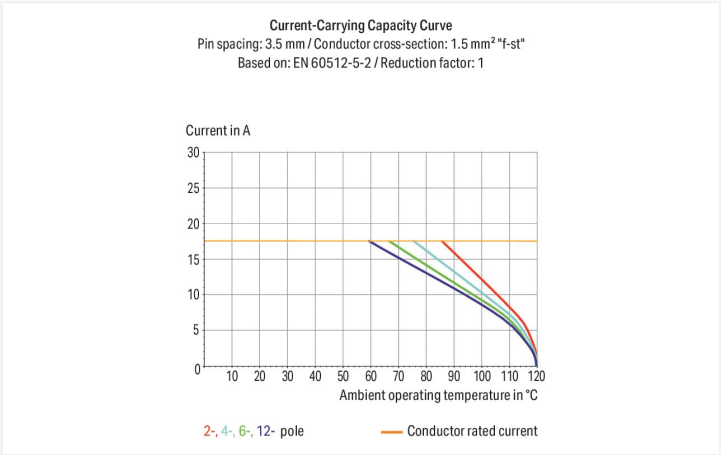


Dimensions in mm

$$L = (\text{pole no.} - 1) \times \text{pin spacing} + 4.2 \text{ mm}$$



Dimensions in mm





- Ideal for compact device connection, panel feedthrough and tight spaces
- Push-in CAGE CLAMP® termination of solid and ferruled fine-stranded conductors
- SMD and THR variants available
- Push-button moves in direction of conductor connection
- Conductor connection and mating direction parallel or perpendicular to the PCB
- Optionally available with in-line or staggered pins (3.5 and 5 mm pin spacing)

Notes	
Note	Application notes:Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260 °C peak temperature. Due to application-specific variables (component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.



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	160 V	160 V	320 V	Rated current	14 A	-	10 A
Rated surge voltage	2.5 kV	2.5 kV	2.5 kV				
Rated current	17.5 A	17.5 A	17.5 A				

Approvals per CSA			
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	14 A	-	14 A

Connection data

Connection points	9	Connection 1	
Total number of potentials	9	Connection technology	Push-in CAGE CLAMP®
Number of connection types	1	Actuation type	Push-button
Number of levels	1	Solid conductor	0.14 ... 1.5 mm² / 28 ... 16 AWG
		Fine-stranded conductor	0.14 ... 1.5 mm² / 26 ... 14 AWG
		Fine-stranded conductor; with insulated ferrule	0.25 ... 0.75 mm²
		Fine-stranded conductor; with uninsulated ferrule	0.25 ... 1.5 mm²
		Strip length	8 ... 9 mm / 0.31 ... 0.35 inches
		Conductor connection direction to PCB	90 °
		Pole number	9

Physical data

Pin spacing	3.5 mm / 0.138 inches
Width	32.2 mm / 1.268 inches
Height	16 mm / 0.63 inches
Height from the surface	13.6 mm / 0.535 inches
Depth	7.8 mm / 0.307 inches
Solder pin length	2.4 mm
Solder pin dimensions	0.3 x 0.8 mm
Plated through-hole diameter (THR)	1 (+0.1) mm

PCB contact

PCB contact	THR
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		black
Material group		I
Insulation material		Polyphthalamide (PPA GF)
Flammability class per UL94		V0
Clamping spring material		Chrome-nickel spring steel (CrNi)
Contact material		Electrolytic copper (E _{Cu})
Contact plating		Tin
Fire load		0.095 MJ
Weight		4.4 g
MSL per J-STD 020D		1

Environmental requirements		
Limit temperature range		-60 ... +105 °C
Processing temperature		-35 ... +60 °C
Continuous operating temperature		-60 ... +105 °C

Commercial data		
ETIM 8.0		EC002643
ETIM 7.0		EC002643
PU (SPU)		96 pcs
Country of origin		CH
GTIN		4066966141481
Customs tariff number		85369010000

Environmental Product Compliance		
RoHS Compliance Status		Compliant, No Exemption

Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
CB DEKRA Certification B.V.	IEC 60947-7-4	NL-74022
CSA CSA Group	C22.2	80060692
KEMA/KEUR DEKRA Certification B.V.	EN 60947-7-4	71-119449
UL Underwriters Laboratories Inc.	UL 1059	E45172

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 2086-1109

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Documentation

Additional Information

Technical Section	03.04.2019	pdf 2027.26 KB	↓
		pdf 535.32 KB	↓

CAD/CAE-Data

CAD data

2D/3D Models
2086-1109

↓

CAE data

ZUKEN Portal
2086-1109

↓

1 Compatible Products

1.1 Optional Accessories

1.1.1 Ferrule

1.1.1.1 Ferrule

 Item No.: 216-301 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	 Item No.: 216-131 Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated; silver-colored	 Item No.: 216-302 Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise
 Item No.: 216-132 Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated	 Item No.: 216-152 Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated	 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.: 216-201 Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white
 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.: 216-101 Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored	 Item No.: 216-121 Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored	 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.: 216-202 Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray	 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.: 216-102 Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored	 Item No.: 216-103 Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated



1.1.1.1 Ferrule



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.: 216-144
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



Item No.: 216-104
Ferrule; Sleeve for 1.5 mm² / AWG 16; un-insulated; electro-tin plated; silver-colored

1.1.2 Test and measurement

1.1.2.1 Testing accessories



Item No.: 859-500
WAGO Test pin; 1 mm Ø; 30 V AC / 60 V DC; CAT0; 1 A; 10 mm uninsulated; Test lead for soldering up to 0,5mm²



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

1.1.3 Tool

1.1.3.1 Operating tool



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

Installation Notes

Conductor termination



Inserting solid conductor via push-in termination.

Conductor termination



Inserting and removing fine-stranded conductors via push-buttons.

Conductor removal



Removing a conductor via push-button.

Testing



Testing via 1 mm Ø test pin.
Touch contact with current bar

Marking



Pole marking via direct marking perpendicular to conductor entry.