Data sheet | Item number: 2086-1109/300-000

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

www.wago.com/2086-1109/300-000

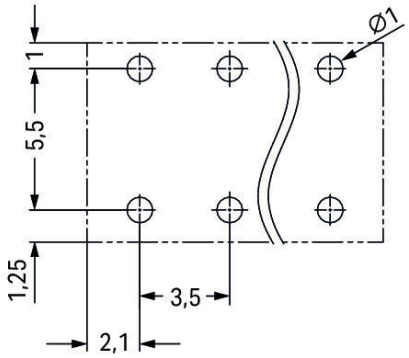


Color:

Subject to changes. Please also observe the further product documentation!

WAGO Corporation
Germantown, WI 53022
Phone: 1-800-DIN-RAIL (346-7245) | Fax: (262) 255-6222
Email: info.us@wago.com | Web: www.wago.us

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Dimensions in mm
L = (pole no. – 1) x pin spacing + 4.2 mm

Item description

- Ideal for compact device connection, panel feedthrough and tight spaces
- Push-in CAGE CLAMP® allows push-in termination of solid and fine-stranded conductors with ferrules
- SMD and THR variants available
- Delivery in tape-and-reel packaging for full integration into SMT soldering process
- Push-button moves in direction of conductor connection
- Conductor connection and mating direction both parallel and perpendicular to the PCB
- Choice of double pin spacing or alternating pin spacing, 3.5 and 5 mm pin spacing

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Data

Electrical data

IEC Approvals

Ratings per	IEC/EN 60664-1
Rated voltage (III / 3)	160 V
Rated surge voltage (III/3)	2.5 kV
Rated voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV
Nominal voltage (II/2)	320 V
Rated surge voltage (II/2)	2.5 kV
Rated current	17.5 A
Legend (ratings)	(III / 2) ≙ Overvoltage category III / Pollution degree 2

UL Approvals

Approvals per	UL 1059
Rated voltage UL (Use Group B)	300 V
Rated current UL (Use Group B)	10 A
Rated voltage UL (Use Group C)	300 V
Rated current UL (Use Group C)	10 A
Rated voltage UL (Use Group D)	300 V
Rated current UL (Use Group D)	10 A

CSA Approvals

Approvals per	CSA
Rated voltage CSA (Use Group B)	300 V
Rated current CSA (Use Group B)	10 A
Rated voltage CSA (Use Group D)	300 V
Rated current CSA (Use Group D)	10 A

Connection data

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

Connection 1

Connection technology	Push-in CAGE CLAMP®
Actuation type	Push-button
Solid conductor	0.14 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.14 … 1.5 mm² / 24 … 16 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 inch
Conductor connection direction to PCB	90 °
Number of poles	9

Physical data

Pin spacing	3.5 mm / 0.138 inch
Width	32.2 mm / 1.268 inch
Height	15.1 mm / 0.594 inch
Height from the surface	13.6 mm / 0.535 inch
Depth	7.8 mm / 0.307 inch
Solder pin length	1.5 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

Color	black
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-plated
Weight	4.4 g

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Environmental requirements

Limit temperature range	-60 … +105 °C

Commercial data

PU (SPU)	96 Stück
Packaging type	BOX
Country of origin	CH
GTIN	4055144090260
Customs tariff number	85369010000

Approvals / Certificates

Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	CB DEKRA Certification B.V.	IEC 60947-7-4	NL-74022
	CSA DEKRA Certification B.V.	C22.2	80060692
	KEMA/KEUR DEKRA Certification B.V.	EN 60947-7-4	71-119449

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc.	UL 1059	E45172

Optional accessories

Ferrules

Ferrule		
	Item no.: 216-101 Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-101

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	Item no.: 216-104 Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-104
	Item no.: 216-102 Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-102
	Item no.: 216-103 Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated	www.wago.com/216-103
	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	www.wago.com/216-142
	Item no.: 216-132 Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-132
	Item no.: 216-121 Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-121
	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	www.wago.com/216-143
	Item no.: 216-131 Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-131
	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	www.wago.com/216-141
	Item no.: 216-152 Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-152
	Item no.: 216-202 Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-202
	Item no.: 216-151 Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-151
	Item no.: 216-144 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	www.wago.com/216-144
	Item no.: 216-201 Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-201
	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	www.wago.com/216-241
	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	www.wago.com/216-242
	Item no.: 216-301 Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow	www.wago.com/216-301
	Item no.: 216-302	

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	Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; green	www.wago.com/216-302

Tools

Operating tool

	Item no.: 210-719 Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft	www.wago.com/210-719

Testing accessories

Testing accessories

	**Item no.: 735-500** Test pin; 1 mm Ø; with solder connection for test wire	www.wago.com/735-500
	**Item no.: 859-500** Test pin; 1 mm Ø; with solder connection for test wire	www.wago.com/859-500

Downloads

Documentation

Additional Information

Technical explanations	Apr 3, 2019	pdf 2.0 MB	Download
THR Soldering Process		pdf 548.2 kB	Download

CAD files

CAE data

ZUKEN Portal 2086-1109/300-000	URL	Download

CAD data

2D/3D Models 2086-1109/300-000	URL	Download

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 2086-1109/300-000	URL	Download
THR PCB terminal block; push-button; 1.5 mm²; Pin spacing 3.5 mm; 9-pole; Push-in CAGE CLAMP®; Solder pin length 1.5 mm; 1,50 mm²; black		

Installation Notes

Conductor termination



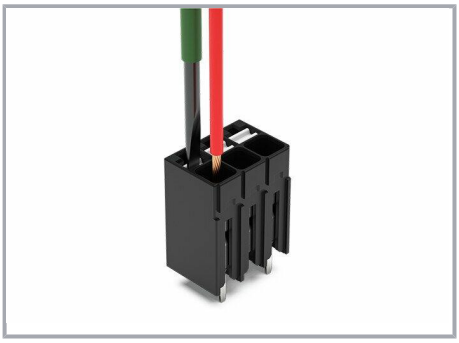
Inserting solid conductor via push-in termination.

Conductor removal



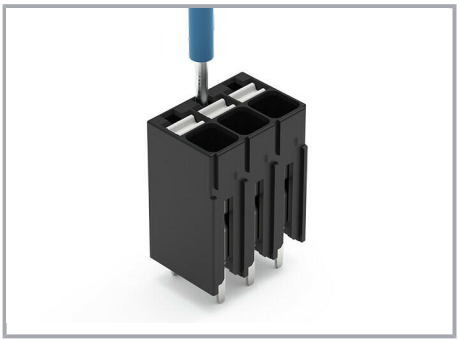
Removing fine-stranded conductors via push-buttons.

Conductor termination



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

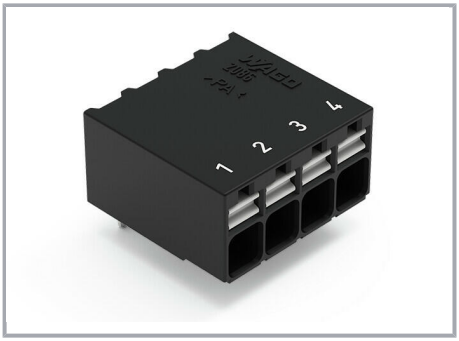
Testing



Testing via 1 mm Ø test pin.

Touch contact with current bar.

Marking



Pole marking via direct marking
perpendicular to conductor entry.

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WAGO:

2002-1207 260-105 235-502 750-638/025-000 859-798 233-508 261-402 2624-3502 2636-3108/020-000 769-413 859-354 759-302 885-566 890-503 2010-1205 2086-1107 2102-1204 2636-1355 2787-2144 769-428 855-3001/250-001 207-4301 751-9301 769-131 852-1322 236-424 2606-3353 2624-1312 236-506 750-1405/040-000