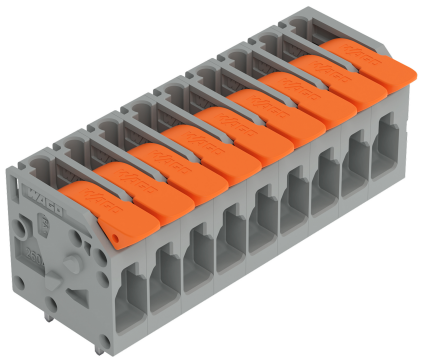
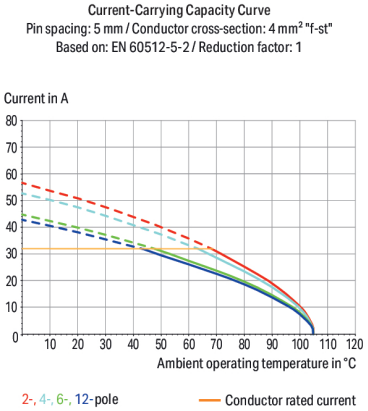
Data Sheet | Item Number: 2604-1109

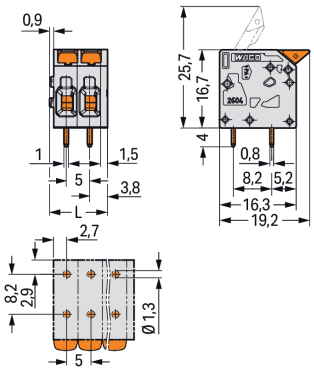
PCB terminal block; lever; 4 mm²; Pin spacing 5 mm; 9-pole; Push-in CAGE CLAMP®; gray

https://www.wago.com/2604-1109





Color: gray



Dimensions in mm
L = (pole no. – 1) x pin spacing + 7.4 mm

PCB terminal block, 2604 Series, solder pin dimensions 0.8 x 1 mm

Connecting conductors is quick and easy with this PCB terminal block (item number 2604-1109). It offers the flexibility needed for different mounting types. Conductors should only be connected to this PCB terminal block if their strip length is between 9 and 11 mm . This product features one conductor terminal and utilizes Push-in CAGE CLAMP®. Our Push-in CAGE CLAMP® is a universal, maintenance-free connection solution for all conductor types, offering a key advantage: It allows direct insertion of both solid and fine-stranded conductors with ferrules without needing tools. No preparation is required; for example, crimping the conductor's ferrule is not necessary. The item's dimensions are (47.4 x 20.7 x 19.2) mm (width x height x depth). Depending on the conductor type, this PCB terminal block is suitable for conductor cross sections ranging from 0.2 mm² to 4 mm². The contact surface is coated with tin. This PCB terminal block is operated with a lever. The PCB terminal block is designed for THT soldering. Insert the conductor at an angle of 0°..

Notes

General safety information	**NOTICE: Observe installation and safety instructions!** **To be sold only with installation instructions!**
Variants:	Other pole numbers Direct marking Other colors 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	320 V	400 V	630 V
Rated impulse withstand voltage	4 kV	4 kV	4 kV
Rated current	32 A	32 A	32 A

Approvals per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A

Approvals per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	5 A

Connection Data

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

Connection 1

Connection technology	Push-in CAGE CLAMP®
Actuation type	Lever
Solid conductor	0.2 … 4 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 4 mm² / 24 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 2.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²
Fine-stranded conductor; with twin ferrule	0.25 … 1.5 mm²
Strip length	9 … 11 mm / 0.35 … 0.43 inches
Conductor connection direction to PCB	0 °
Pole number	9

Physical data

Pin spacing	5 mm / 0.197 inches
Width	47.4 mm / 1.866 inches
Height	20.7 mm / 0.815 inches
Height from the surface	16.7 mm / 0.657 inches
Depth	19.2 mm / 0.756 inches
Solder pin length	4 mm
Solder pin dimensions	0.8 x 1 mm
Drilled hole diameter	$1.3^{(+0.1)}$ mm

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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	0.188 MJ
Actuator color	orange
Weight	13.5 g

Environmental requirements

Limit temperature range	-60 … +105 °C
Processing temperature	-35 … +60 °C
Continuous operating temperature	-60 … +105 °C

Environmental Testing

Test specification: Railway applications – Rolling stock – Electronic equipment	DIN EN 50155 (VDE 0115-200):2022-06
Test procedure: Railway applications – Rolling stock equipment – Vibration and shock tests	DIN EN 61373 (VDE 0115-0106):2011-04
Spectrum/Mounting location	Service life test, Category 1, Class A/B
Functional test with noise-like oscillations	Test passed according to Section 8 of the standard
Frequency	f_1 = 5 Hz to f_2 = 150 Hz
Acceleration	0.101g (highest test level used for all axes)
Test duration per axis	10 min.
Test directions	X, Y and Z axes
Monitoring of contact faults and interruptions	Passed
Voltage drop measurement before and after each axis	Passed
Simulated service life test through increased levels of noise-like oscillations	Test passed according to Section 9 of the standard
Frequency	f_1 = 5 Hz to f_2 = 150 Hz
Acceleration	0.572g (highest test level used for all axes)
Test duration per axis	5 h
Test directions	X, Y and Z axes
Extended testing: Monitoring of contact faults and interruptions	Passed
Extended testing: Voltage drop measurement before and after each axis	Passed
Shock test	Test passed according to Section 10 of the standard
Shock pulse form	Half sine
Acceleration	5g (highest test level used for all axes)
Shock duration	30 ms
Number of shocks (per axis)	3 pos. und 3 neg.
Test directions	X, Y and Z axes
Extended testing: Monitoring of contact faults and interruptions	Passed

Continued on next page

Environmental Testing

Extended testing: Voltage drop measurement before and after each axis	Passed
Vibration and shock stress for rolling stock equipment	Passed

Commercial data

PU (SPU)	40 pcs
Packaging type	Box
Country of origin	PL
GTIN	4055143564366
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
CB DEKRA Certification B.V.	IEC 60947-7-4	NL-61583
KEMA/KEUR DEKRA Certification B.V.	EN 60947-7-4	71-100535
UL Underwriters Laboratories Inc.	UL 1059	E45172

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
Railway WAGO GmbH & Co. KG	-	Z00004411.000

Approvals for hazardous areas

Approval	Standard	Certificate Name
AEx Underwriters Laboratories Inc.	UL 60079	E185892
ATEX Physikalisch Technische Bundesanstalt	IEC 60079	PTB 24 ATEX 1005 U
IECEx Physikalisch Technische Bundesanstalt	IEC 60079	IECEx PTB 24.0016U

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Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 2604-1109

Documentation

Safety Data Sheet

Handling and Safety Instructions of PCB Terminal Blocks with Push-In Cage Clamp — pdf, 393.90 KB

Additional Information

Technical Section — 03.04.2019 — pdf, 2027.26 KB

CAD/CAE-Data

CAD data

2D/3D Models 2604-1109

CAE data

ZUKEN Portal 2604-1109

PCB Design

Symbol and Footprint via SamacSys 2604-1109

Symbol and Footprint via Ultra Librarian 2604-1109

1 Compatible Products

1.1 Optional Accessories

1.1.1 Ferrule

1.1.1.1 Ferrule

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.: 216-242
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.: 216-243
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red



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

Item No.: 216-246
Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue



Item No.: 216-106
Ferrule; Sleeve for 2.5 mm² / AWG 14; uninsulated; electro-tin plated; silver-colored

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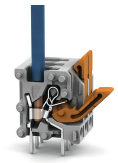
Installation Notes

Conductor termination



Insert fine-stranded conductors – and remove all conductors – via operating tool.

Conductor termination



Insert solid conductors via push-in termination.