PCB terminal block - SPTA-THR 1,5/ 9-3,81 R56 - 1071186

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (http://phoenixcontact.com/download)

The figure shows the 10-position version

PCB terminal block, nominal current: 13.5 A, rated voltage (III/2): 160 V, nominal cross section: 1.5 mm², Number of rows: 1, Number of positions per row: 9, product range: SPTA 1,5/..-THR, pitch: 3.81 mm, connection method: Push-in spring connection, mounting: THR soldering, conductor/PCB connection direction: 45 °, color: black, Solder pin [P]: 2.6 mm, type of packaging: 56 mm wide tape

Your advantages

- Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- Intuitive use through colour coded actuation lever
- Angled connection enables multi-row arrangement on the PCB
- Designed for integration into the SMT soldering process

Key Commercial Data

Packing unit	145 pc
Minimum order quantity	145 pc
GTIN	4 055626 771090
GTIN	4055626771090

Technical data

Item properties

Brief article description	PCB terminal block
Range of articles	SPTA 1,5/..-THR
Pitch	3.81 mm
Number of positions	9
Mounting type	THR soldering
Number of levels	1

Electrical parameters

Nominal current	13.5 A

PCB terminal block - SPTA-THR 1,5/ 9-3,81 R56 - 1071186

Technical data

Electrical parameters

Nom. voltage	160 V
Contact resistance	Test passed IEC 60512-2-2:2003-05
Rated voltage (III/3)	160 V
Rated voltage (III/2)	160 V
Rated voltage (II/2)	250 V
Rated surge voltage (III/3)	2.5 kV
Rated surge voltage (III/2)	2.5 kV
Rated surge voltage (II/2)	2.5 kV

Connection capacity

Connection method	Push-in spring connection
Conductor cross section solid	0.2 mm² ... 1.5 mm² (Conductor connection with open terminal point)
	0.34 mm² ... 1.5 mm² (Push-in connection)
Conductor cross section flexible	0.5 mm² ... 1.5 mm²
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 1.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 1.5 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² ... 0.75 mm²
Stripping length	10 mm

Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/ JEDEC JESD 201
Contact material	Cu alloy
Surface characteristics	hot-dip tin-plated
Metal surface terminal point (top layer)	Tin (2 - 4 µm Sn)
Metal surface soldering area (top layer)	Tin (2 - 4 µm Sn)

Material data - housing

Housing color	black (9005)
Insulating material	LCP GF
Insulating material group	III
CTI according to IEC 60112	175
Flammability rating according to UL 94	V0
Glow wire flammability index GWFI according to EN 60695-2-12	850
Glow wire ignition temperature GWIT according to EN 60695-2-13	775
Temperature for the ball pressure test according to EN 60695-10-2	125 °C

Dimensions for the product

Caption	Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center
Length [l]	11.6 mm
Width [w]	35.08 mm
Height [h]	15.07 mm

PCB terminal block - SPTA-THR 1,5/ 9-3,81 R56 - 1071186

Technical data

Dimensions for the product

Pitch	3.81 mm
Height (without solder pin)	12.47 mm
Solder pin [P]	2.6 mm

Dimensions for PCB design

Hole diameter	1.1 mm

Packaging information

Type of packaging	56 mm wide tape
Pieces per package	145
Denomination packing units	Pcs.
[W] tape width	56 mm
[A] coil diameter	330 mm
[W2] coil overall dimension	60.4 mm
Outer packaging type	Transparent-Bag
ESD level	(D) electrostatically conductive
Specification	DIN EN 61340-5-1 (VDE 0300-5-1): 2008-07

General product information

Type of note	Assembly instruction:
Note	This item is not suitable for PCB cleaning with liquids.

Processing notes

Process	Reflow/wave soldering
Specification	Following IPC/JEDEC J-STD-020E:2014-12
	Following IEC 61760-1:2006-04
	Follwing IEC 60068-2-58:2015-03
Moisture Sensitive Level	MSL 1
Classification temperature T_c	260 °C
Solder cycles in the reflow	3

Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 105 °C (Depending on the current carrying capacity/derating curve)

Termination and connection method

Test for conductor damage and slackening	IEC 60999-1:1999-11
	Test passed

Pull-out test

Pull-out test	IEC 60999-1:1999-11
Conductor cross section / conductor type / tensile force	0.2 mm² / solid / > 10 N
	0.5 mm² / flexible / > 20 N

PCB terminal block - SPTA-THR 1,5/ 9-3,81 R56 - 1071186

Technical data

Pull-out test

	1.5 mm² / solid / > 40 N
	1.5 mm² / flexible / > 40 N

Mechanical tests according to standard

Test specification	IEC 60947-7-4

Electrical tests

Rated current	13.5 A
Conductor cross section	1.5 mm²
Rated voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV

Air clearances and creepage distances

Clearances and creepage distances	IEC 60947-7-4:2013-08
Specification	IEC 60947-7-4:2013-08
Minimum clearance - inhomogeneous field (III/3)	1.5 mm
Minimum clearance - inhomogeneous field (III/2)	1.5 mm
Minimum clearance - inhomogeneous field (II/2)	1.5 mm
Minimum creepage distance value (III/3)	2.5 mm
Minimum creepage distance value (III/2)	1.6 mm
Minimum creepage distance value (II/2)	2.5 mm

Temperature-rise test

Specification	IEC 60947-7-4:2019-01
Requirement temperature-rise test	The sum of ambient temperature and temperature rise of the PCB terminal block shall not exceed the upper limiting temperature.

Current carrying capacity / derating curves

Caption	Type: SPTA-THR 1,5/...-3,81 R...

Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 - 60.1 Hz)
Acceleration	50 m/s^2 (60.1 - 150 Hz)
Test duration per axis	2.5 h

Glow-wire test

Specification	IEC 60695-2-10:2013-04
Temperature	850 °C
Time of exposure	5 s

Alternating climate test

Result	Test passed

PCB terminal block - SPTA-THR 1,5/ 9-3,81 R56 - 1071186

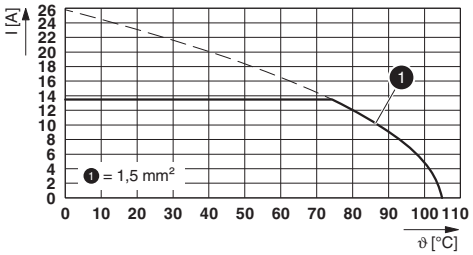
Technical data

Alternating climate test

Specification	ISO 6988:1985-02

Drawings

Diagram



Type: SPTA-THR 1,5/...-3,81 R...

Classifications

eCl@ss

eCl@ss 10.0.1	27440401
eCl@ss 11.0	27460101
eCl@ss 9.0	27440401

ETIM

ETIM 6.0	EC002643
ETIM 7.0	EC002643

Approvals

Approvals

Approvals

VDE Zeichengenehmigung / IECEE CB Scheme / EAC / cULus Recognized

Ex Approvals

Approval details

PCB terminal block - SPTA-THR 1,5/ 9-3,81 R56 - 1071186

Approvals

VDE Zeichengenehmigung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40046113

Nominal voltage UN	160 V
Nominal current IN	13.5 A
mm²/AWG/kcmil	0.2-1.5

IECEE CB Scheme		http://www.iecee.org/	DE1-63833

Nominal voltage UN	160 V
Nominal current IN	13.5 A
mm²/AWG/kcmil	0.2-1.5

EAC		B.01687

cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-20061129

	B	D
Nominal voltage UN	300 V	300 V
Nominal current IN	10 A	10 A
mm²/AWG/kcmil	24-16	24-16

Accessories

Accessories

Crimping tool

Crimping pliers - CRIMPFOX 6 - 1212034

Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm² ... 6.0 mm², lateral entry, trapezoidal crimp

Screwdriver tools

PCB terminal block - SPTA-THR 1,5/ 9-3,81 R56 - 1071186

Accessories

Screwdriver - SZS 0,4X2,5 VDE - 1205037

Screwdriver, slot-headed, VDE insulated, size: 0.4 x 2.5 x 80 mm, 2-component grip, with non-slip grip

---

Test plug terminal block

Test plugs - MPS-MT 1-S - 1944372

Test plug, consisting of 1.0 mm Ø test pin and 2.0 mm Ø socket

---

Accessories - MPS-MT 1-S4-B RD - 1982800

Accessories, number of positions: 1, pitch: 0 mm

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
http://www.phoenixcontact.com