Printed circuit board terminal - SPT-THR 2,5/ 2-H-5,0 P20 R24

1135280

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PCB terminal block, nominal current: 32 A, rated voltage (III/2): 400 V, nominal cross section: 4 mm^2, number of potentials: 2, Number of rows: 1, Number of positions per row: 2, product range: SPT 2,5/..-H-THR, pitch: 5 mm, connection method: Push-in spring connection, mounting: THR soldering, conductor/PCB connection direction: 0 °, color: black, Pin layout: Linear double pinning, Solder pin [P]: 2 mm, type of packaging: 24 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
- Operation and conductor connection from one direction enable integration into front of device
- Designed for integration into the SMT soldering process

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Commercial Data

Order Key	1135280
Packing unit	125 pc
Minimum order quantity	125 pc
Note	Made to Order (non-returnable)
GTIN	4063151068707
Weight per Piece (including packing)	6.3 GRM
Weight per Piece (excluding packing)	2.2 GRM
Customs tariff number	85369010
Country of origin	PL

Technical Data

Product properties

Number of positions	2
Number of connections	2
Number of rows	1
Number of potentials	2
Pin layout	Linear double pinning

Electrical properties

Nominal current I_N	32 A

Mounting

Processing notes

Process	Reflow/wave soldering
Moisture Sensitive Level	MSL 1
Classification temperature T_c	260 °C
Solder cycles in the reflow	3

Material specifications

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 (4 - 8 µm Sn)
Metal surface soldering area (top layer)	Tin (4 - 8 µm Sn)

Material data - housing

Housing color	black (9005)
Insulating material	LCP
Insulating material group	IIIa
CTI according to IEC 60112	175
Flammability rating according to UL 94	V0

Material data – actuating element

Color of the actuating lever	white (9003)
Insulating material	PA GF
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

Connection data

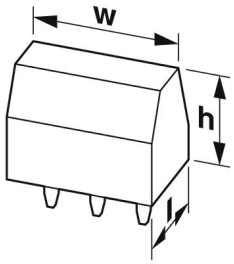
Connection technology

Nominal cross section	4 mm²

Conductor connection

Connection method	Push-in spring connection
Conductor cross section solid	0.2 mm² ... 4 mm² (Conductor connection with open terminal point)
	0.5 mm² ... 4 mm² (Push-in connection)
Conductor cross section flexible	0.2 mm² ... 4 mm²
Conductor cross section AWG	24 ... 12
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 2.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 2.5 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² ... 0.5 mm²
Stripping length	10 mm

Dimensions

Dimensional drawing	
Width	10.8 mm
Height	14.8 mm
Installed height	12.8 mm
Length of the solder pin	2 mm
Length	19.15 mm
Length of the solder pin	2 mm
Hole diameter	1.2 mm
Pitch	5 mm

Mechanical tests

Test for conductor damage and slackening

Specification	IEC 60999-1:1999-11
Result	Test passed

Pull-out test

Specification	IEC 60999-1:1999-11
Conductor cross section/conductor type/tractive force setpoint/actual value	0.2 mm² / solid / > 10 N
	0.2 mm² / flexible / > 10 N
	4 mm² / solid / > 60 N

	4 mm² / flexible / > 60 N
	0.5 mm² / solid / > 20 N

Electrical tests

Electrical properties

Rated voltage (III/2)	400 V
Rated surge voltage (III/2)	4 kV
Pollution degree	2

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.

Short-time withstand current

Specification	IEC 60947-7-4:2019-01

Air clearances and creepage distances |

Specification	IEC 60947-7-4:2019-01
Insulating material group	IIIa
Comparative tracking index (IEC 60112:2003-01)	CTI 175
Rated insulation voltage (III/3)	320 V
Rated surge voltage (III/3)	4 kV
minimum clearance value - non-homogenous field (III/3)	3 mm
minimum creepage distance (III/3)	5 mm
Rated insulation voltage (III/2)	400 V
Rated surge voltage (III/2)	4 kV
minimum clearance value - non-homogenous field (III/2)	3 mm
minimum creepage distance (III/2)	4 mm
Rated insulation voltage (II/2)	500 V
Rated surge voltage (II/2)	4 kV
minimum clearance value - non-homogenous field (II/2)	3 mm
minimum creepage distance (II/2)	5 mm

Environmental and real-life conditions

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)
Sweep speed	50 m/s² (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

Aging

Specification	IEC 60947-7-4:2019-01

Ambient conditions

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

Packaging specifications

Type of packaging	24 mm wide tape
[W] tape width	24 mm
[W2] coil overall dimension	30.4 mm
[A] coil diameter	330 mm
Outer packaging type	Transparent-Bag
ESD level	(D) electrostatically conductive
Specification	DIN EN 61340-5-1 (VDE 0300-5-1): 2008-07

Approvals

VDE Zeichengenehmigung

Nominal voltage U_N	400 V
Nominal current I_N	32 A
AWG/kcmil	0.2-4
Min. cross section	0.2 mm²
Max. cross section	4 mm²

Classifications

ECLASS

ECLASS-9.0	27440401
ECLASS-10.0.1	27440401
ECLASS-11.0	27460101

UNSPSC

UNSPSC 19.0	39121432
UNSPSC 20.0	39121432
UNSPSC 21.0	39121432

Accessories

Screwdriver tools

Screwdriver tools - SZF 1-0,6X3,5 - 1204517



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

Crimping tool

Crimping tool - 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 mm^2 ... 6.0 mm^2, lateral entry, trapezoidal crimp

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PHOENIX CONTACT (I) Pvt. Ltd.
A-58/2, Okhla Industrial Area, Phase - II, New Delhi-110 020

+91.1275.71420
info@phoenixcontact.co.in