

1822752

https://www.phoenixcontact.com/us/products/1822752

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 documentation. Our general terms of use for downloads are valid.



PCB terminal block, nominal current: 17.5 A, rated voltage (III/2): 160 V, nominal cross section: 1.5 mm², number of potentials: 2, number of rows: 1, number of positions per row: 2, product range: SPT 1,5/..-H-THR, pitch: 3.5 mm, connection method: Push-in spring connection, mounting: THR soldering, conductor/PCB connection direction: 0 °, color: black, Pin layout: Linear pinning, Solder pin [P]: 2.6 mm, number of solder pins per potential: 2, type of packaging: packed in cardboard

# Your advantages

- · Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- · Intuitive operation due to color-coded actuating push button
- · Designed for integration into the SMT soldering process
- · Quick and convenient testing using integrated test option
- Operation and conductor connection from one direction enable integration into front of device
- Two solder pins reduce the mechanical strain on the soldering spots

## Commercial data

Item number	1822752
Packing unit	350 pc
Minimum order quantity	350 pc
Sales key	AA12
Product key	AALCCA
Catalog page	Page 10 (NTK-2014)
GTIN	4046356809573
Weight per piece (including packing)	1.251 g
Weight per piece (excluding packing)	1.16 g
Customs tariff number	85369010
Country of origin	PL



1822752

https://www.phoenixcontact.com/us/products/1822752

# Technical data

## Product properties

Product type	Printed circuit board terminal
Product family	SPT 1,5/H-THR
Product line	COMBICON Terminals S
Number of positions	2
Pitch	3.5 mm
Number of connections	2
Number of rows	1
Number of potentials	2
Pin layout	Linear pinning
Solder pins per potential	2

# Electrical properties

Nominal current I <sub>N</sub>	17.5 A
Nominal voltage U <sub>N</sub>	160 V
Degree of pollution	3
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
Rated voltage (II/2)	320 V
Rated surge voltage (II/2)	2.5 kV

# Connection data

# Connection technology

Nominal cross section	1.5 mm²
-----------------------	---------

#### Conductor connection

Connection method	Push-in spring connection
Conductor cross section rigid	0.2 mm <sup>2</sup> 1.5 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm² 1.5 mm²
Conductor cross section AWG	24 16
Conductor cross section flexible, with ferrule without plastic sleeve	0.2 mm² 1.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.2 mm² 0.75 mm²
Stripping length	8 mm

# Mounting

Mounting type	THR soldering
Pin layout	Linear pinning
Processing notes	



1822752

https://www.phoenixcontact.com/us/products/1822752

Process	Reflow/wave soldering
Moisture Sensitive Level	MSL 1
Classification temperature T <sub>c</sub>	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

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

#### Material data - actuating element

Color (Actuating element)	white (9010)
Insulating material	PA GF
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

#### Notes

Assembly instruction:	This item is not suitable for PCB cleaning with liquids.
-----------------------	--

# Dimensions

Dimensional drawing	h h
Pitch	3.5 mm
Width [w]	7.5 mm
Height [h]	10.3 mm
Length [I]	13.7 mm
Installed height	7.7 mm
Solder pin length [P]	2.6 mm
Pin dimensions	0.7 x 0.3 mm



1822752

https://www.phoenixcontact.com/us/products/1822752

PCB	design
-----	--------

Pin spacing	7 mm
Hole diameter	1.1 mm

### Mechanical tests

#### Connection test

Specification	IEC 60998-2-2:2002-12
Result	Test passed

#### Test for conductor damage and slackening

Specification	IEC 60998-2-2:2002-12
Result	Test passed

#### Pull-out test

Specification	IEC 60998-2-2:2002-12
Conductor cross section/conductor type/tractive force setpoint/actual value	0.2 mm² / solid / > 10 N
	0.2 mm² / flexible / > 10 N
	$1.5 \text{ mm}^2 / \text{ solid } / > 40 \text{ N}$
	1.5 mm² / flexible / > 40 N

#### Flexion test

Specification	IEC 60998-2-2:2002-12
Result	Test passed

## Insulation holder for crimp connections

modulation modulation of thing continections	
Result	Test passed

### Electrical tests

#### 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.

#### Insulation resistance

Specification	IEC 60998-1:2002-12
Insulation resistance, neighboring positions	> 5 MΩ

#### Air clearances and creepage distances |

All clearances and creepage distances	
Specification	IEC 60947-7-4:2013-08
Insulating material group	Illa
Comparative tracking index (IEC 60112)	CTI 175
Rated insulation voltage (III/3)	160 V
Rated surge voltage (III/3)	2.5 kV
minimum clearance value - non-homogenous field (III/3)	1.5 mm
minimum creepage distance (III/3)	2.5 mm



1822752

https://www.phoenixcontact.com/us/products/1822752

Rated insulation voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV
minimum clearance value - non-homogenous field (III/2)	1.5 mm
minimum creepage distance (III/2)	1.6 mm
Rated insulation voltage (II/2)	320 V
Rated surge voltage (II/2)	2.5 kV
minimum clearance value - non-homogenous field (II/2)	1.5 mm
minimum creepage distance (II/2)	3.2 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 Hz 60.1 Hz)
Sweep speed	5g (60.1 Hz 150 Hz)
Test duration per axis	2.5 h

#### Glow-wire test

Specification	IEC 60998-1:2002-12
Temperature	850 °C
Time of exposure	5 s

#### 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
Relative humidity (storage/transport)	30 % 70 %
Ambient temperature (assembly)	-5 °C 100 °C

### Packaging specifications

Type of packaging	packed in cardboard
-------------------	---------------------

Phoenix Contact 2024 © - all rights reserved https://www.phoenixcontact.com

Phoenix Contact USA 586 Fulling Mill Road Middletown, PA 17057, United States (+717) 944-1300 info@phoenixcon.com