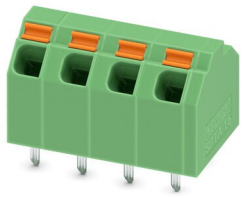
SPTA 1,5/ 4-5,08 - PCB terminal block

1751189

https://www.phoenixcontact.com/us/products/1751189

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PCB terminal block, nominal current: 17.5 A, rated voltage (III/2): 320 V, nominal cross section: 1.5 mm^2, number of potentials: 4, number of rows: 1, number of positions per row: 4, product range: SPTA 1,5/, pitch: 5.08 mm, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 45 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 3.4 mm, number of solder pins per potential: 2, type of packaging: packed in cardboard. Suitable for CAT5

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
- Quick and convenient testing using integrated test option
- Two solder pins reduce the mechanical strain on the soldering spots

Commercial Data

Item number	1751189
Packing unit	1 pc
Minimum order quantity	50 pc
Sales Key	AA12
Product Key	AALBFF
Catalog Page	Page 139 (C-1-2013)
GTIN	4046356318129
Weight per Piece (including packing)	3.66 g
Weight per Piece (excluding packing)	3.66 g
Customs tariff number	85369010
Country of origin	CN

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Technical Data

Product properties

Product line	COMBICON Terminals S
Product type	Printed circuit board terminal
Product family	SPTA 1,5/
Number of positions	4
Pitch	5.08 mm
Number of connections	4
Number of rows	1
Number of potentials	4
Pin layout	Linear pinning
Solder pins per potential	2

Electrical properties

Nominal current I_N	17.5 A
Nominal voltage U_N	320 V
Degree of pollution	3
Rated voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
Rated voltage (II/2)	630 V
Rated surge voltage (II/2)	4 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 mm² ... 1.5 mm²
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	0.25 mm² ... 1.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 1.5 mm²
Stripping length	10 mm

Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning
Connection method	Push-in spring connection

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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)	green (6021)
Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600
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

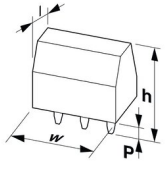
Material data – actuating element

Color (Actuating element)	orange (2003)
Insulating material	POM
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	HB

Notes

General	The item is qualified for CAT5 Ethernet applications. For this reason, it is suited for use in IoT devices.

Dimensions

Dimensional drawing	
Pitch	5.08 mm
Width [w]	20.55 mm
Height [h]	15.4 mm
Length [l]	12 mm
Installed height	12 mm
Solder pin length [P]	3.4 mm

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Pin dimensions	0.6 x 1 mm

PCB design

Pin spacing	7 mm
Hole diameter	1.1 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
	1.5 mm² / solid / > 40 N
	1.5 mm² / flexible / > 40 N

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.

Short-time withstand current

Specification	IEC 60947-7-4:2019-01

Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 5 MΩ

Air clearances and creepage distances |

Specification	IEC 60947-1:2007-06 + A1:2010-12 + A2:2014-09
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV
minimum clearance value - non-homogenous field (III/3)	3 mm
minimum creepage distance (III/3)	3.2 mm
Rated insulation voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
minimum clearance value - non-homogenous field (III/2)	3 mm
minimum creepage distance (III/2)	3 mm
Rated insulation voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV

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minimum clearance value - non-homogenous field (II/2)	3 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 60695-2-10:2013-04
Temperature	850 °C
Time of exposure	5 s

Aging

Specification	IEC 60947-7-4:2019-01

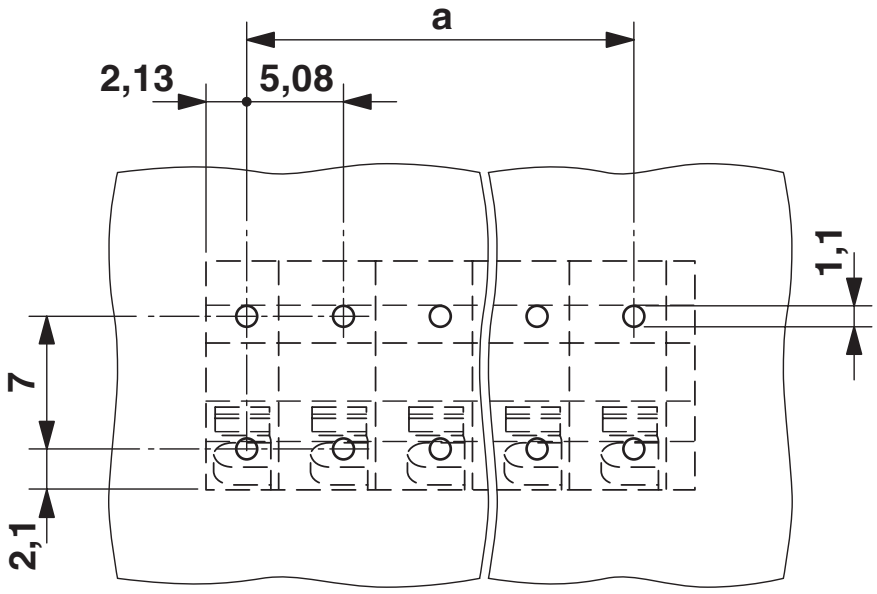
Ambient conditions

Ambient temperature (operation)	-40 °C ... 105 °C (Depending on the current carrying capacity/derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

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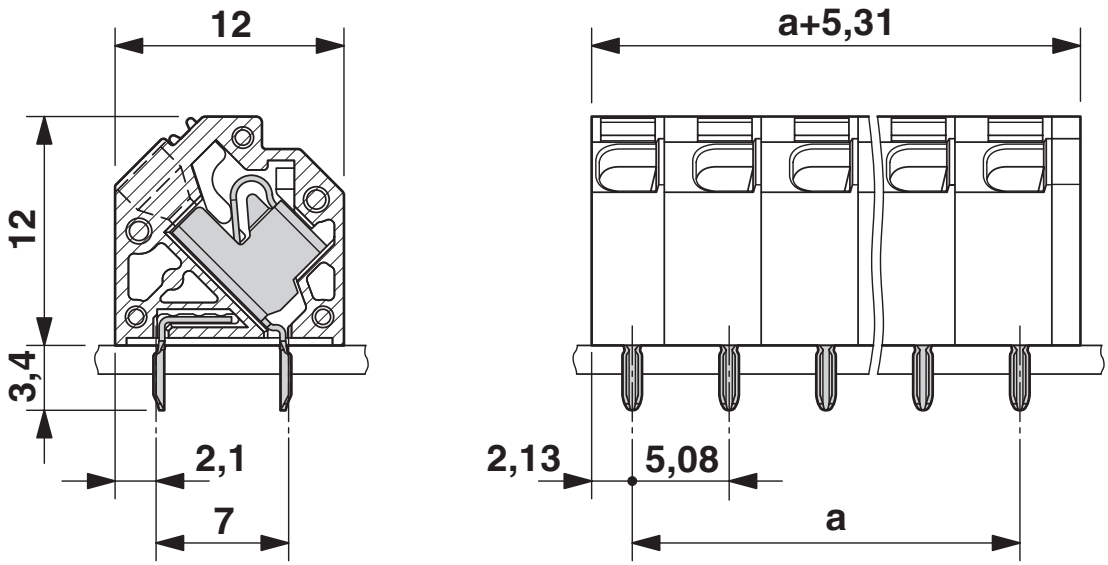
Drawings

Drilling plan/solder pad geometry



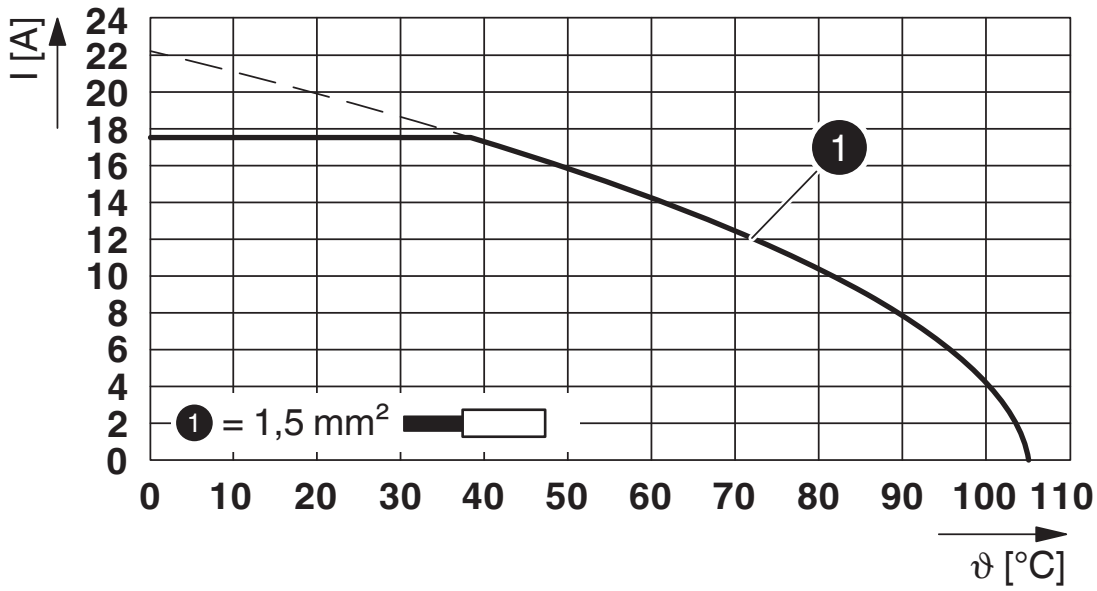
The front solder pin is for additional mechanical stability only; it does not have any electrical properties

Dimensional drawing



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Diagram



Type: SPTA 1,5/...-5,08

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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1751189

IECEE CB Scheme
Approval ID: DE1-66744

EAC
Approval ID: B.01687

cULus Recognized
Approval ID: E60425-20061129

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
Use group B				
	300 V	10 A	26 - 16	-
Use group D				
	300 V	10 A	26 - 16	-

VDE Zeichengenehmigung
Approval ID: 40029329

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	250 V	17.5 A	-	0.2 - 1.5

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Classifications

ECLASS

ECLASS-11.0	27460101
ECLASS-12.0	27460101
ECLASS-13.0	27460101

ETIM

ETIM 8.0	EC002643

UNSPSC

UNSPSC 21.0	39121400

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Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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Accessories

SZS 0,4X2,5 VDE - Screwdriver

1205037

https://www.phoenixcontact.com/us/products/1205037



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

CRIMPFOX 6 - Crimping pliers

1212034

https://www.phoenixcontact.com/us/products/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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SH-PCB 6 - Shield connection clamp

1322664

https://www.phoenixcontact.com/us/products/1322664



Shield connection, Shield connection clamp, connection method: Spring-cage connection, product range: Accessories, width: 11 mm

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