

PCB terminal block - SPT 5/12-V-7,5-ZB



1719419

<https://www.phoenixcontact.com/pc/products/1719419>

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PCB terminal block, nominal current: 41 A, rated voltage (III/2): 1000 V, nominal cross section: 6 mm², number of potentials: 12, number of rows: 1, number of positions per row: 12, product range: SPT 5/..-V, pitch: 7.5 mm, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 90 °, color: green, Pin layout: Zigzag pinning W, Solder pin [P]: 4.6 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
- Clamping space opened by means of fixed screwdriver enables convenient conductor connection
- Unrestricted 600-V-UL approval thanks to compact zig-zag pinning
- Vertical connection enables multi-row arrangement on the PCB

Commercial Data

Item number	1719419
Packing unit	50 pc
Minimum order quantity	1 pc
Note	Made to Order (non-returnable)
Product Key	AANBBB
Catalog Page	Page 465 (C-1-2013)
GTIN	4046356141512
Weight per Piece (including packing)	43.774 g
Weight per Piece (excluding packing)	41.6 g
Customs tariff number	85369010
Country of origin	DE

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1719419

<https://www.phoenixcontact.com/pc/products/1719419>

Technical Data

Product properties

Product line	COMBICON Terminals L
Product type	Printed circuit board terminal
Number of positions	12
Pitch	7.5 mm
Number of connections	12
Number of rows	1
Number of potentials	12
Pin layout	Zigzag pinning W
Solder pins per potential	2

Electrical properties

Nominal current I_N	41 A
Nominal voltage U_N	1000 V
Degree of pollution	3
Rated voltage (III/3)	800 V
Rated surge voltage (III/3)	8 kV
Rated voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV

Connection data

Connection technology

Nominal cross section	6 mm ²
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Conductor connection

Connection method	Push-in spring connection
Conductor cross section solid	0.2 mm ² ... 10 mm ² (Conductor connection with open terminal point)
	0.75 mm ² ... 10 mm ² (Push-in connection)
Conductor cross section flexible	0.2 mm ² ... 6 mm ²
Conductor cross section AWG	24 ... 8
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 6 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 6 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.25 mm ² ... 1.5 mm ²
Stripping length	15 mm

Mounting

Mounting type	Wave soldering
Pin layout	Zigzag pinning W

Material specifications

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1719419

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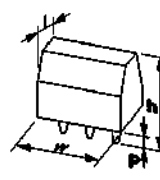
Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Surface characteristics	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	green (RAL 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

Dimensions

Dimensional drawing	
Pitch	7.5 mm
Width [w]	91.8 mm
Height [h]	19 mm
Length [l]	18.5 mm
Installed height	14.4 mm
Solder pin length [P]	4.6 mm

PCB design

Pin spacing	14 mm
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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 mm ² / solid / > 10 N
	0.2 mm ² / flexible / > 10 N

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1719419

<https://www.phoenixcontact.com/pc/products/1719419>

	10 mm ² / solid / > 90 N
	6 mm ² / flexible / > 80 N
	0.75 mm ² / solid / > 30 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
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Insulation resistance

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

Air clearances and creepage distances |

Specification	IEC 60947-7-4:2019-01
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	800 V
Rated surge voltage (III/3)	8 kV
minimum clearance value - non-homogenous field (III/3)	8 mm
minimum creepage distance (III/3)	10 mm
Rated insulation voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
minimum clearance value - non-homogenous field (III/2)	8 mm
minimum creepage distance (III/2)	8 mm
Rated insulation voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV
minimum clearance value - non-homogenous field (II/2)	5.5 mm
minimum creepage distance (II/2)	5.5 mm

Environmental and real-life conditions

Vibration test

Specification	IEC 60068-2-6:1995-03
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
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1719419

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Temperature	850 °C
Time of exposure	5 s

Aging

Specification	IEC 60947-7-4:2019-01
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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
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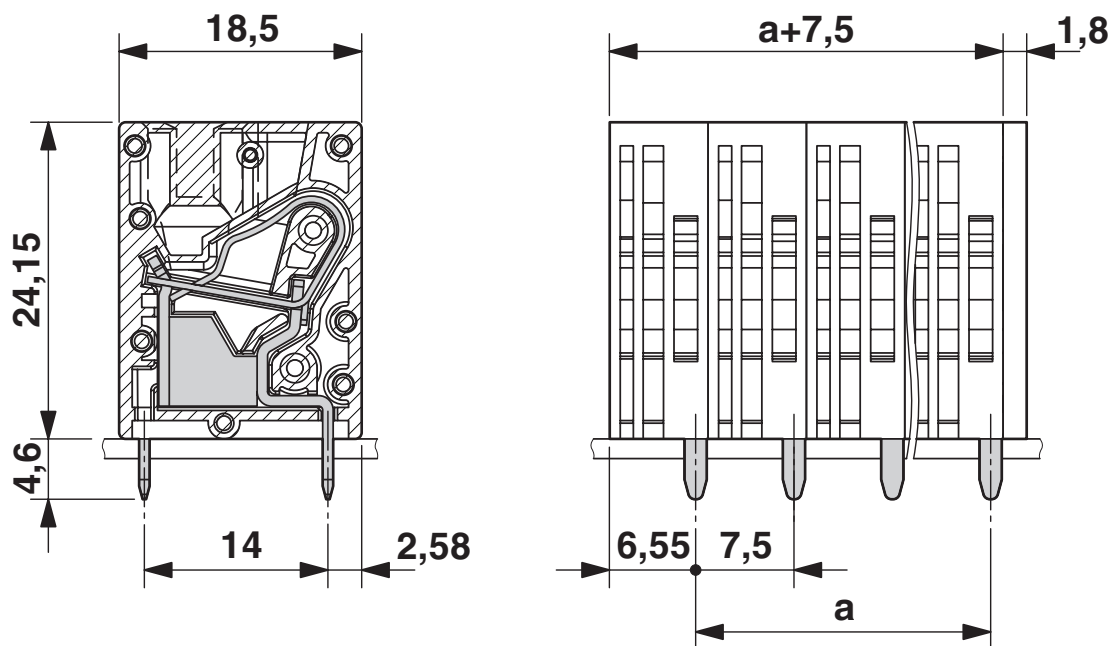


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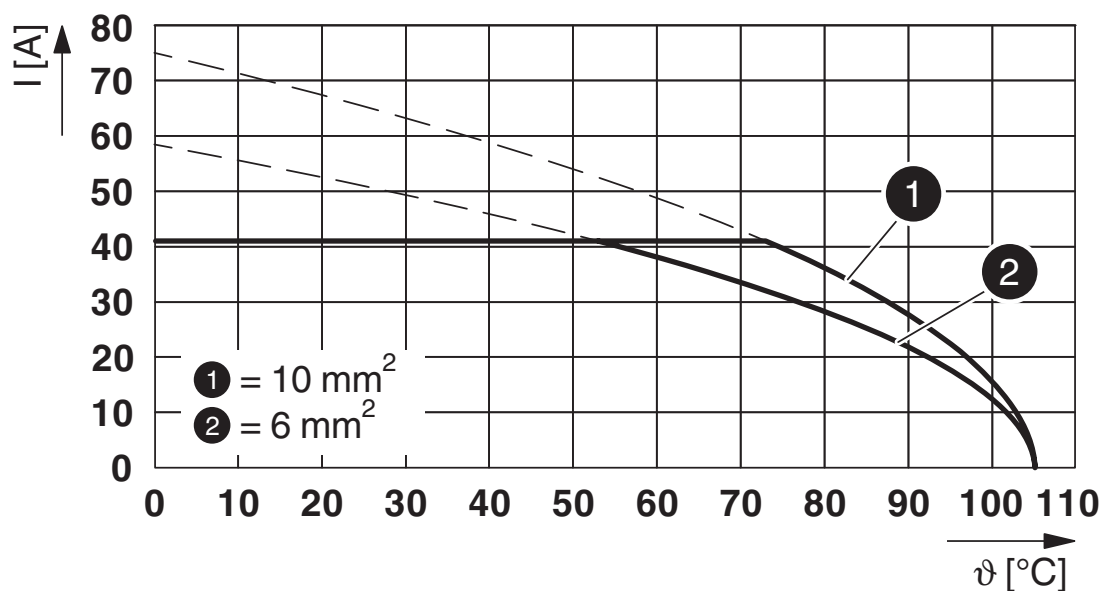
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Drawings

Dimensional drawing



Diagram



Type: SPT 5/...-V-7,5-ZB

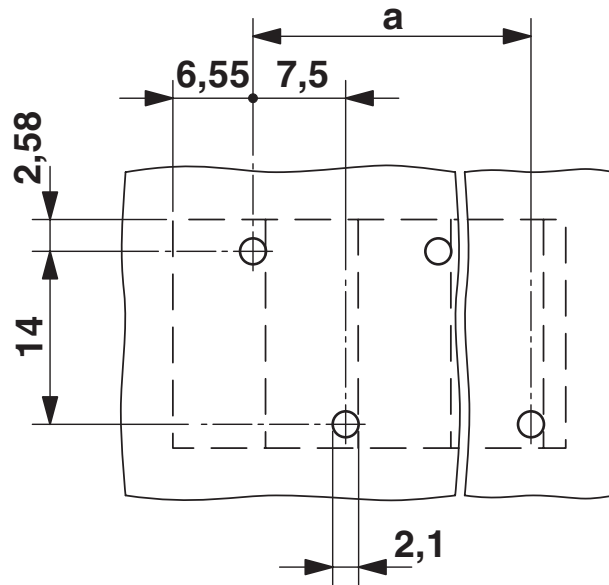
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1719419

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Drilling plan/solder pad geometry



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Approvals

 VDE Zeichengenehmigung Approval ID: 40042909				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	1000 V	41 A	-	0.2 - 10

 EAC Approval ID: B.01687				
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 cULus Recognized Approval ID: E60425-20061129				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
Use group B	600 V	36 A	24 - 8	-
Use group C	600 V	36 A	24 - 8	-

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1719419

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Classifications

ECLASS

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

ETIM

ETIM 8.0	EC002643
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UNSPSC

UNSPSC 21.0	39121400
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1719419

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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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1719419

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Accessories

Screwdriver

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

<https://www.phoenixcontact.com/pc/products/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

Pitch spacer

Pitch spacer - RZ-SPT 5-4 V - 1701535

<https://www.phoenixcontact.com/pc/products/1701535>



Pitch spacer, Pitch spacer, color: green, product range: DECKEL + RZ + DP

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1719419

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Crimping pliers

Crimping pliers - CRIMPFOX 6 - 1212034

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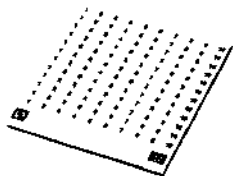


Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm² ... 6.0 mm², lateral entry, trapezoidal crimp

Marker card

Marker card - SK 7,5/3,8:FORTL.ZAHLEN - 0804455

<https://www.phoenixcontact.com/pc/products/0804455>



Marker card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: adhesive, for terminal block width: 7.5 mm, lettering field size: 7.5 x 3.8 mm

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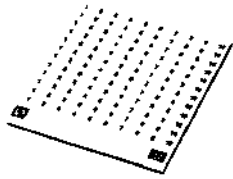
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Marker card

Marker card - SK 3,8 REEL P7,5 WH CUS - 0825127

<https://www.phoenixcontact.com/pc/products/0825127>



Marker card, can be ordered: by card, white, labeled according to customer specifications, mounting type: adhesive, for terminal block width: 7.5 mm, lettering field size: continuous x 3.8 mm

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