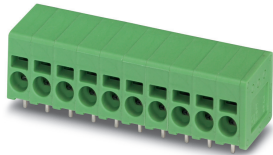


## PCB terminal block - SPT 2,5/ 2-H-5,0 - 1990973

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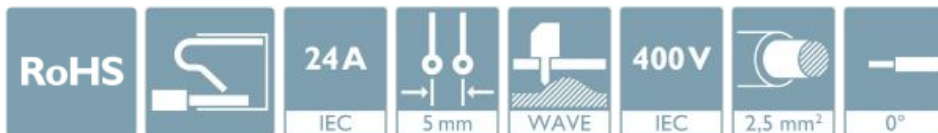


The figure shows a 10-position version of the product

PCB terminal block, nominal current: 24 A, rated voltage (III/2): 400 V, nominal cross section: 2.5 mm<sup>2</sup>, Number of potentials: 2, Number of rows: 1, Number of positions per row: 2, product range: SPT 2,5/..-H, pitch: 5 mm, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Linear double pinning, Solder pin [P]: 2.5 mm, 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
- ✓ Operation and conductor connection from one direction enable integration into front of device
- ✓ Two solder pins reduce the mechanical strain on the soldering spots



### Key Commercial Data

Packing unit	1 pc
Minimum order quantity	100 pc
GTIN	 4 046356 104593
GTIN	4046356104593
Weight per Piece (excluding packing)	2.800 g
Custom tariff number	85369010
Country of origin	Poland

### Technical data

#### Item properties

Brief article description	PCB terminal block
Range of articles	SPT 2,5/..-H

## PCB terminal block - SPT 2,5/ 2-H-5,0 - 1990973

### Technical data

#### Item properties

Pitch	5 mm
Number of positions	2
Mounting type	Wave soldering
Pin layout	Linear double pinning
Number of levels	1
Number of connections	2
Number of potentials	2

#### Electrical parameters

Nominal current	24 A
Nom. voltage	400 V
Rated voltage (III/3)	250 V
Rated voltage (III/2)	400 V
Rated voltage (II/2)	630 V
Rated surge voltage (III/3)	4 kV
Rated surge voltage (III/2)	4 kV
Rated surge voltage (II/2)	4 kV

#### Connection capacity

Connection method	Push-in spring connection
Conductor cross section solid	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section AWG / kcmil	24 ... 12
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (Stripping length 8 mm)
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (Stripping length 8 mm)
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 (4 - 8 µm Sn)
Metal surface soldering area (top layer)	Tin (4 - 8 µm Sn)

#### Material data - housing

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

# PCB terminal block - SPT 2,5/ 2-H-5,0 - 1990973

## Technical data

### Material data - housing

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 ]	14.4 mm
Width [ w ]	11.4 mm
Height [ h ]	16 mm
Pitch	5 mm
Height (without solder pin)	13.5 mm
Solder pin [P]	2.5 mm
Pin spacing	8.2 mm
Pin dimensions	0.8 x 0.8 mm

### Dimensions for PCB design

Hole diameter	1.1 mm
Pin spacing	8.2 mm

### Packaging information

Type of packaging	packed in cardboard
Pieces per package	100
Denomination packing units	Pcs.

### General product information

Type of note	Note on application
Note	Rated insulation voltages with pitch spacer RZ-SPT-2,5-2,5: 400 V (III/3), 630 V (III/2), 1000 V (II/2) RZ-SPT-2,5-5,0: 630 V (III/3), 800 V (III/2), 1000 V (II/2)

### Ambient conditions

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

### Termination and connection method

Connection test	IEC 60998-2-2:2002-12
Test result	Test passed
Test for conductor damage and slackening	IEC 60998-2-2:2002-12

## PCB terminal block - SPT 2,5/ 2-H-5,0 - 1990973

### Technical data

#### Termination and connection method

	Test passed
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#### Pull-out test

Pull-out test	IEC 60998-2-2:2002-12
Conductor cross section / conductor type / tensile force	0.2 mm <sup>2</sup> / solid / > 10 N
	0.2 mm <sup>2</sup> / flexible / > 10 N
	4 mm <sup>2</sup> / solid / > 60 N
	2.5 mm <sup>2</sup> / flexible / > 50 N

#### Mechanical tests according to standard

Test specification	IEC 60998-2-2 (in parts)
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#### Electrical tests

Rated current	24 A
Conductor cross section	2.5 mm <sup>2</sup>
Rated voltage (III/2)	400 V
Rated surge voltage (III/2)	4 kV

#### Air clearances and creepage distances

Clearances and creepage distances	IEC 60664-1:2007-04
Specification	IEC 60664-1:2007-04
Minimum clearance - inhomogeneous field (III/3)	3 mm
Minimum clearance - inhomogeneous field (III/2)	3 mm
Minimum clearance - inhomogeneous field (II/2)	3 mm
Minimum creepage distance value (III/3)	3.2 mm
Minimum creepage distance value (III/2)	3 mm
Minimum creepage distance value (II/2)	3.2 mm

#### Temperature-rise test

Specification	IEC 60998-2-1:2002-12
Requirement temperature-rise test	Increase in temperature ≤ 45 K

#### Current carrying capacity / derating curves

Caption	Type: SPT 2,5/5-H-5,0 Test following DIN EN 60512-5-2:2003-01 Reduction factor = 1 No. of positions: 5
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#### Vibration test

Specification	IEC 60068-2-6:1995-03
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min

# PCB terminal block - SPT 2,5/ 2-H-5,0 - 1990973

## Technical data

### Vibration test

Amplitude	0.35 mm (10 - 60.1 Hz)
Acceleration	5 g (60.1 - 150 Hz)
Test duration per axis	2.5 h

### Insulation resistance

Specification	IEC 60998-1:2002-12
Result	Test passed
Insulation resistance, neighboring positions	$10^9 \Omega$

### Glow-wire test

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

### Mechanical strength/tumbling barrel test

Specification	IEC 60998-1:2002-12
Number of drop cycles	50

### Standards and Regulations

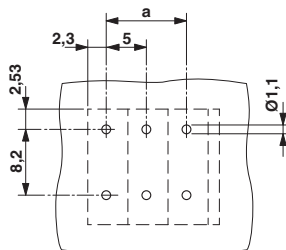
Connection in acc. with standard	EN-VDE
	CUL
Flammability rating according to UL 94	V0

### Environmental Product Compliance

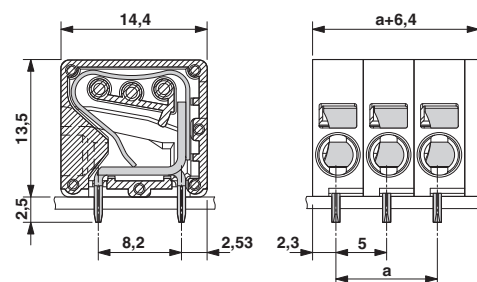
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

## Drawings

Drilling diagram

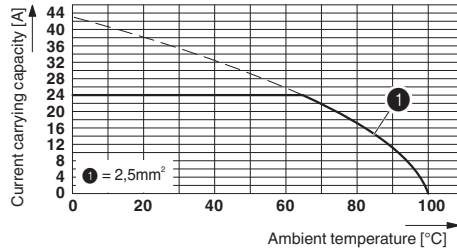


Dimensional drawing



# PCB terminal block - SPT 2,5/ 2-H-5,0 - 1990973

Diagram



Type: SPT 2,5/5-H-5,0  
 Test following DIN EN 60512-5-2:2003-01  
 Reduction factor = 1  
 No. of positions: 5

## Classifications

eCl@ss

eCl@ss 10.0.1	27440401
eCl@ss 11.0	27460101
eCl@ss 4.0	27141100
eCl@ss 4.1	27141100
eCl@ss 5.0	27141100
eCl@ss 5.1	27261100
eCl@ss 6.0	27261100
eCl@ss 7.0	27440401
eCl@ss 8.0	27440401
eCl@ss 9.0	27440401

ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002643
ETIM 5.0	EC002643
ETIM 6.0	EC002643
ETIM 7.0	EC002643

UNSPSC

UNSPSC 6.01	30211801
UNSPSC 7.0901	39121432
UNSPSC 11	39121432
UNSPSC 12.01	39121432
UNSPSC 13.2	39121432
UNSPSC 18.0	39121432

# PCB terminal block - SPT 2,5/ 2-H-5,0 - 1990973

## Classifications

### UNSPSC

UNSPSC 19.0	39121432
UNSPSC 20.0	39121432
UNSPSC 21.0	39121432

## Approvals


### Approvals


#### Approvals

IECEE CB Scheme / SEV / EAC / cULus Recognized

#### Ex Approvals

### Approval details

IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	CH-10802
Nominal voltage UN	400 V		
Nominal current IN	24 A		
mm <sup>2</sup> /AWG/kcmil	0.2-2.5		

SEV		<a href="https://www.eurofins.ch/de/">https://www.eurofins.ch/de/</a>	IK-4498
Nominal voltage UN	400 V		
Nominal current IN	24 A		
mm <sup>2</sup> /AWG/kcmil	0.2-2.5		

EAC		B.01687	
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# PCB terminal block - SPT 2,5/ 2-H-5,0 - 1990973

## Approvals

cULus Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	E60425-20061129
	B	C	D
Nominal voltage UN	300 V	150 V	150 V
Nominal current IN	20 A	20 A	15 A
mm <sup>2</sup> /AWG/kcmil	24-12	24-12	24-12

## 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 mm<sup>2</sup> ... 6.0 mm<sup>2</sup>, lateral entry, trapezoidal crimp

#### Pitch spacer

Pitch spacer - RZ-SPT 2,5-2,5 - 1772595



Pitch spacer, number of positions: 1, pitch: 5 mm, color: green

Pitch spacer - RZ-SPT 2,5-5,0 - 1772605



Pitch spacer, number of positions: 1, pitch: 5 mm, color: green

#### Screwdriver tools



## PCB terminal block - SPT 2,5/ 2-H-5,0 - 1990973

### Accessories

Screwdriver - 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

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