

# SPT-THR 1,5/ 6-V-3,5 P26 - PCB terminal block



1822354

<https://www.phoenixcontact.com/us/products/1822354>

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PCB terminal block, nominal current: 17.5 A, rated voltage (III/2): 160 V, nominal cross section: 1.5 mm<sup>2</sup>, number of potentials: 6, number of rows: 1, number of positions per row: 6, product range: SPT 1,5/..-V-THR, pitch: 3.5 mm, connection method: Push-in spring connection, mounting: THR soldering, conductor/PCB connection direction: 90 °, 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 use through colour coded actuation lever
- Designed for integration into the SMT soldering process
- Operation and conductor connection from one direction enable integration into front of device
- Quick and convenient testing using integrated test option
- Two solder pins reduce the mechanical strain on the soldering spots

## Commercial data

Item number	1822354
Packing unit	1 pc
Minimum order quantity	160 pc
Note	Made to order (non-returnable)
Sales key	AA12
Product key	AALCCG
Catalog page	Page 11 (NTK-2014)
GTIN	4046356812078
Weight per piece (including packing)	3.168 g
Weight per piece (excluding packing)	3.168 g
Customs tariff number	85369010
Country of origin	PL

# SPT-THR 1,5/ 6-V-3,5 P26 - PCB terminal block



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## Technical data

### Product properties

Product line	COMBICON Terminals S
Product type	Printed circuit board terminal
Product family	SPT 1,5/..-V-THR
Number of positions	6
Pitch	3.5 mm
Number of connections	6
Number of rows	1
Number of potentials	6
Pin layout	Linear pinning
Solder pins per potential	2

### Electrical properties

Nominal current $I_N$	17.5 A
Nominal voltage $U_N$	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 mm <sup>2</sup>
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#### 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 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section AWG	24 ... 16
Conductor cross section flexible, with ferrule without plastic sleeve	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.2 mm <sup>2</sup> ... 0.75 mm <sup>2</sup>
Stripping length	8 mm

### Mounting

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

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## 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 $\mu$ m Sn)
Metal surface soldering area (top layer)	Tin (4 - 8 $\mu$ m Sn)

### Material data - housing

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

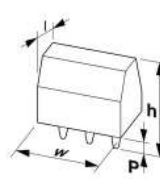
### Material data – actuating element

Color (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.
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## Dimensions

Dimensional drawing	
Pitch	3.5 mm
Width [w]	21.5 mm
Height [h]	16.2 mm
Length [l]	7.7 mm
Installed height	13.6 mm
Solder pin length [P]	2.6 mm

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Pin dimensions	0.7 x 0.3 mm
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## PCB design

Pin spacing	5.5 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 mm <sup>2</sup> / solid / > 10 N
	0.2 mm <sup>2</sup> / flexible / > 10 N
	1.5 mm <sup>2</sup> / solid / > 40 N
	1.5 mm <sup>2</sup> / flexible / > 40 N

### Flexion test

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

### Insulation holder for crimp connections

Result	Test passed
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## 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 |

Specification	IEC 60947-7-4:2013-08
Insulating material group	IIIa
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

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minimum creepage distance (III/3)	2.5 mm
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
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# SPT-THR 1,5/ 6-V-3,5 P26 - PCB terminal block

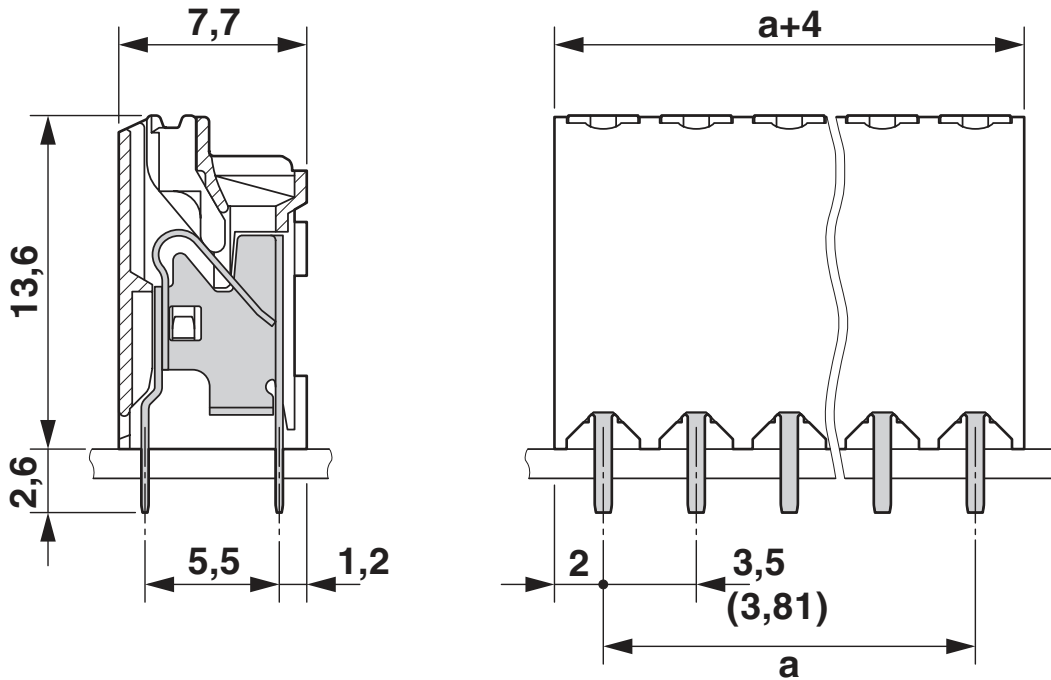


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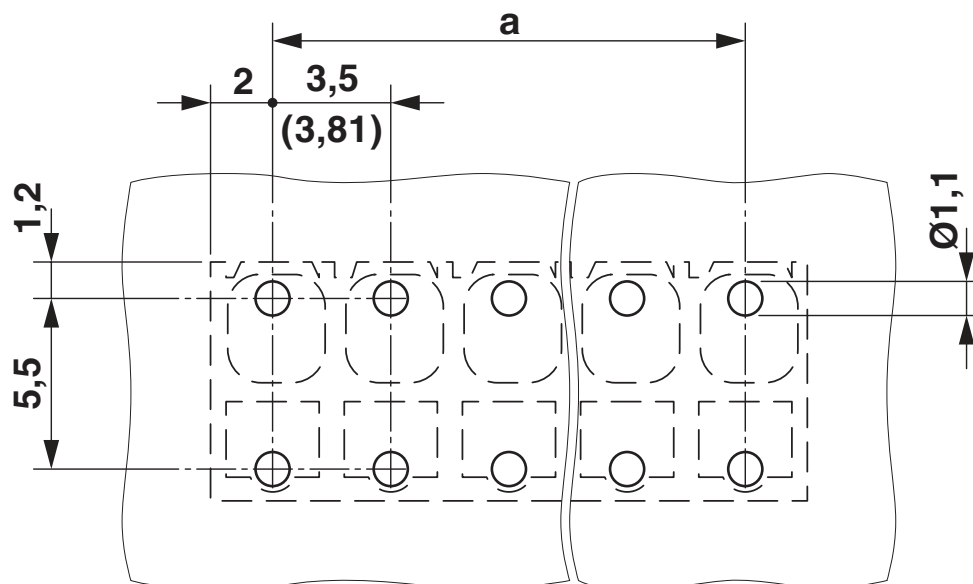
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## Drawings

Dimensional drawing



Drilling plan/solder pad geometry

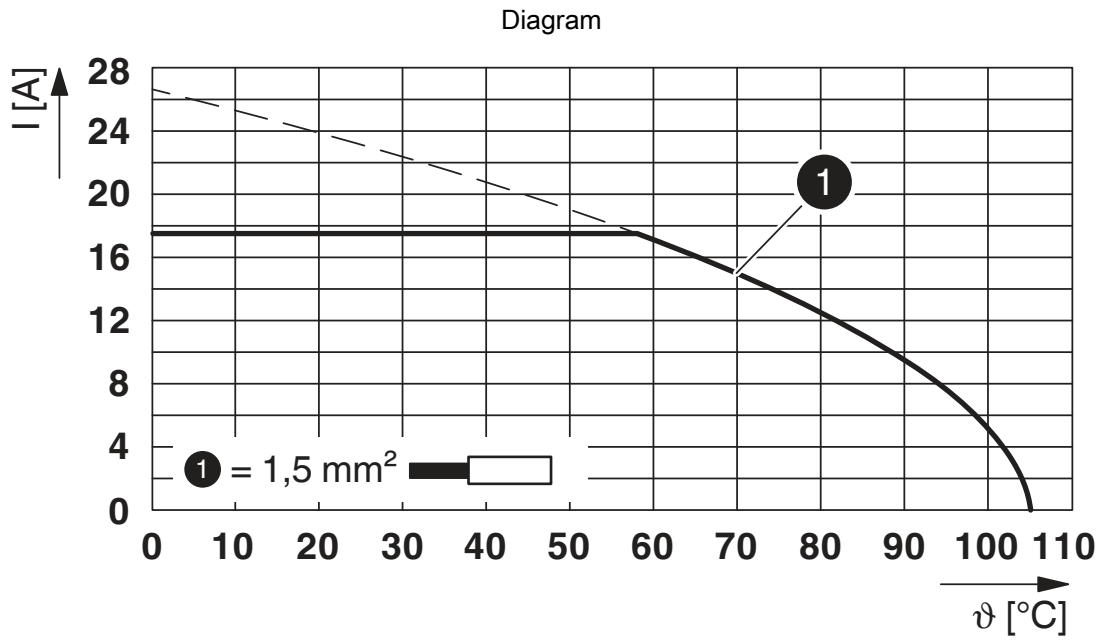


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Type: SPT-THR 1,5/...-V-3,5 P...

# SPT-THR 1,5/ 6-V-3,5 P26 - PCB terminal block



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1822354>



**EAC**

Approval ID: B.01687



**cULus Recognized**

Approval ID: E60425-20061129

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Use group B	300 V	10 A	24 - 16	-
Use group D	300 V	10 A	24 - 16	-



**VDE Zeichengenehmigung**

Approval ID: 40046113

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	160 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
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### 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

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### A 0,5 - 8 - Ferrule

3202481

<https://www.phoenixcontact.com/us/products/3202481>



Ferrule, length: 8 mm, color: silver

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## A 0,75- 8 - Ferrule

3202504

<https://www.phoenixcontact.com/us/products/3202504>



Ferrule, length: 8 mm, color: silver

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## A 1 - 8 - Ferrule

3202517

<https://www.phoenixcontact.com/us/products/3202517>



Ferrule, length: 8 mm, color: silver

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## AI 0,25- 8 YE - Ferrule

3203037

<https://www.phoenixcontact.com/us/products/3203037>



Ferrule, sleeve length: 8 mm, length: 12.5 mm, color: yellow

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## AI 0,5 - 8 WH - Ferrule

3200014

<https://www.phoenixcontact.com/us/products/3200014>



Ferrule, sleeve length: 8 mm, length: 14 mm, color: white

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## AI 0,5 - 8 WH -1000 - Ferrule

3200881

<https://www.phoenixcontact.com/us/products/3200881>



Ferrule, sleeve length: 8 mm, length: 14 mm, color: white

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## AI 0,75- 8 GY - Ferrule

3200519

<https://www.phoenixcontact.com/us/products/3200519>



Ferrule, sleeve length: 8 mm, length: 14 mm, color: gray

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## AI 0,75- 8 GY -1000 - Ferrule

3200894

<https://www.phoenixcontact.com/us/products/3200894>



Ferrule, sleeve length: 8 mm, length: 14 mm, color: gray

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

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## MPS-MT 1-S4-B RD - Accessories

1982800

<https://www.phoenixcontact.com/us/products/1982800>

Test plug terminal block, Accessories



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