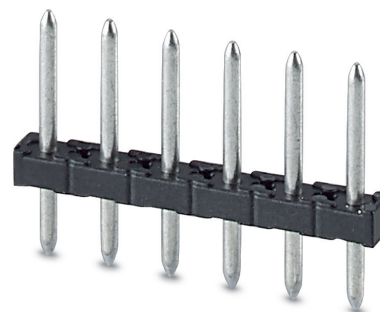


**Order No.: 1945119**

**Type: PST 1,0/ 4-3,5**

**Pin strip**



The figure shows a 6-position version

## 1 Main features



- |                         |                     |                        |                     |
|-------------------------|---------------------|------------------------|---------------------|
| • No. of pos.           | 4                   | • Nominal current      | 8 A                 |
| • Nominal cross section | 0.5 mm <sup>2</sup> | • Nominal voltage      | 250 V               |
| • Color                 | black (9005)        | • Connection direction | 90 °                |
| • Pitch                 | 3.5 mm              | • Type of packaging    | packed in cardboard |
| • Mounting type         | THR soldering       |                        |                     |

## 2 Your advantages

- ✓ Suitable for wave and reflow soldering processes
- ✓ Optimum pin geometry for all COMBICON pin strip connectors

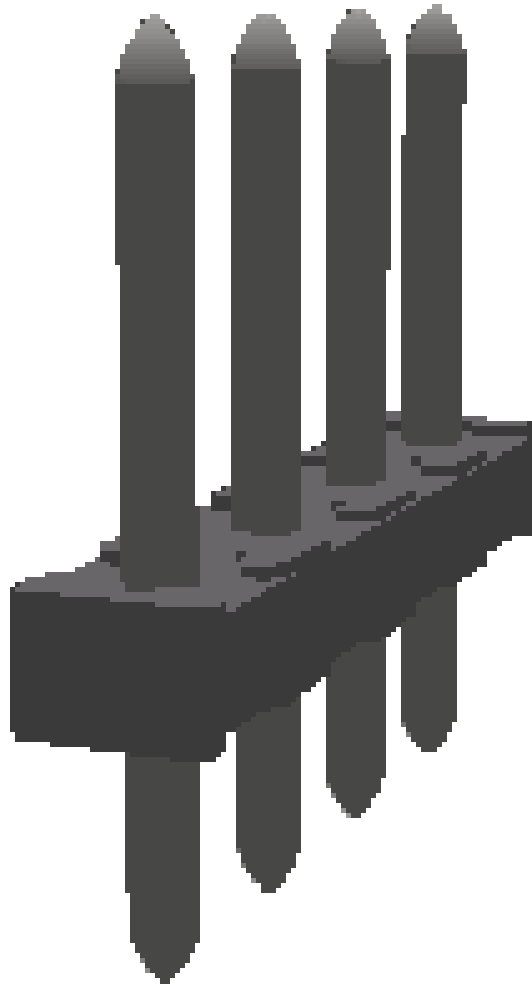


Make sure you always use the latest documentation.  
It can be downloaded at: [phoenixcontact.net/product/1945119](https://phoenixcontact.net/product/1945119)

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**4 3D model in PDF can be activated (Acrobat Reader only)**



**1945119 PST 1,0/ 4-3,5****5 General Technical Data****5.1 item properties**

Order No.	1945119
Type	PST 1,0/ 4-3,5
Plug-in system	COMBICON COMPACT PST 1
Product type	Pin strip
Type of contact	Male connector
Range of articles	PST 1,0/...-V
Pitch	3.5 mm
Range of positions	2...24
Number of positions	4
Number of levels	1
Number of connections	4
Number of potentials	4
Mounting type	THR soldering
Connection direction of the connector to the PCB	90 °
Pin layout	Linear pinning
Product note	The maximum current depends on the plug used. The lower of the two current values apply for plug and pin strip. The pin strip is made of highly temperature resistant plastic and is thus suitable for the reflow process.
Type	Pin strip

**5.2 Mounting**

Type of locking	without
	without

**6 Material properties****6.1 Material of metal parts**

Note	WEEE/RoHS-compliant, whisker-free acc. to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Surface contact area	Nickel (1 - 3 µm Ni) , Tin (3 - 5 µm Sn)
Soldering area surface	Nickel (1 - 3 µm Ni) , Tin (3 - 5 µm Sn)
Surface characteristics	Tin-plated
<b>Insulating material data</b>	<b>Housing</b>
Insulating material	PA
Insulating material group	IIIa
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0
Color	black (9005)
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	270 °C

**1945119 PST 1,0/ 4-3,5****7 Dimensions****7.1 Dimensions for the product**

Length	2.8 mm
Width	13.6 mm
Height (without solder pin)	9.2 mm
Total height	13 mm
Solder pin [P]	3.8 mm
Dimension a	10.5 mm

1945119 PST 1,0/ 4-3,5

8 Series drawing

pos.	dim. a	dim. w
2	3.50 ±0.10	6.60 ±0.15
3	7.00 ±0.15	10.10 ±0.15
4	10.50 ±0.15	13.60 ±0.15
5	14.00 ±0.15	17.10 ±0.15
6	17.50 ±0.15	20.60 ±0.20
7	21.00 ±0.20	24.10 ±0.20
8	24.50 ±0.20	27.60 ±0.20

position 1

A-A  
10:1  
Ø 1.0 ±0.1

footprint  
for information only

position 1

document-No. / RI / date 00860203 / 04 / 08.10.2018  
 scale 5:1  
 document-type TECDOC 2D\_Productfamily  
 description PST 1,0/..-3,5

page 1 of 1

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## 9 Application

## 10 Packaging information

Type of packaging	packed in cardboard
Pieces per package	250

### 10.1 Temperature limit values

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

**1945119 PST 1,0/ 4-3,5****11 Mechanical tests****11.1 Visual examination**

Specification	IEC 61984:2001-06
Visual examination	Test passed
Specification	IEC 60512-1-1:2002-02

**11.2 Dimensional test**

Dimensional test	Test passed
Specification	IEC 60512-1-2:2002-02

**11.3 Resistance of marking**

Resistance of marking	Test passed
Specification	IEC 60068-2-70:1995-12

**11.4 Polarization and coding**

Polarization and coding	
Specification	
Test force	

**11.5 Contact retention in insert**

Contact retention in insert	Test passed
Specification	IEC 60512-8:1993-01
Test force per pos.	19 N



**1945119 PST 1,0/ 4-3,5****12 Insertion and withdrawal forces**

Insertion and withdrawal force	
Specification	Test passed
No. of cycles	10
Insertion strength per pos. approx.	6 N
Withdraw strength per pos. approx.	5 N

**1945119 PST 1,0/ 4-3,5****13 Electrical tests****13.1 Electrical data**

Rated current / conductor cross section	8 A / 0.5 mm <sup>2</sup>
Rated insulation voltage (III/2)	250 V
Rated surge voltage (III/2)	2.5 kV
Contact resistance	1.8 mΩ
Degree of pollution	2

**13.2 Air and creepage distances**

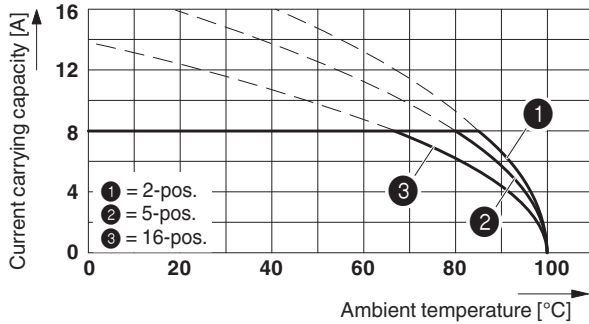
Component	Pin strip		
Specification	IEC 60664-1:2007-04		
Mains type	unearthed mains		
Insulating material group	IIIa		
Comparative tracking index (IEC 60112:2003-01)	CTI 250		
Rated insulation voltage	160 V	250 V	250 V
Rated surge voltage	2.5 kV	2.5 kV	2.5 kV
Degree of pollution	3	2	2
Overvoltage category	III	III	II
Minimum clearance case A (inhomogeneous field)	1.5 mm	1.5 mm	1.5 mm
Minimum value of the creepage path requirement in acc. with table	2.5 mm	2.5 mm	2.5 mm

1945119 PST 1,0/ 4-3,5

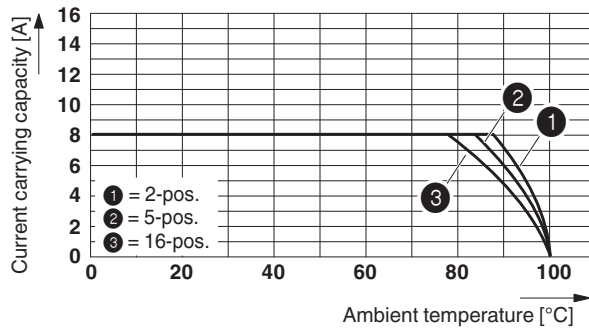
14 Current carrying capacity/derating curves

Specification	IEC 61984:2001-06
Note	Representation based on IEC 60512-5-2:2002-02
Note	For number of positions, see diagram
Reduction factor	0.8
Conductor cross section	0.5 mm <sup>2</sup>

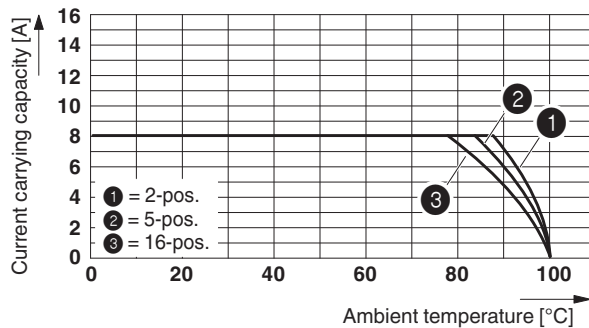
Derating curve for: PTDA 1,5/...-PH-3,5 with PST 1,0/...-3,5



Type: PT 1,5/...-PH-3,5  
 Tested in accordance with DIN EN 60512-5-2:2003-01  
 Reduction factor = 1  
 No. of positions: 5



Type: PT 1,5/...-PVH-3,5 with PST 1,0/...-3,5



14.1 Insulation resistance

**1945119 PST 1,0/ 4-3,5**




Specification	IEC 60512-3-1:2002-02
Result	Test passed
Insulation resistance, neighboring positions	> 10 TΩ

**14.2 Vibration test**

Specification	IEC 60068-2-6:1995-03
Result	Test passed
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 - 60.1 Hz)
Acceleration	5 g (60.1 - 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis
Note	The connected conductor loops were guided to the test sample at a distance of approx. 10 cm.

1945119 PST 1,0/ 4-3,5

15 Approvals / Certificates

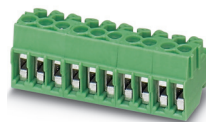
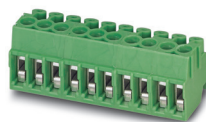
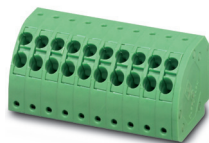
EAC 				
cULus Recognized 				
<b>Usegroup B</b>	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm <sup>2</sup> ]
	300 V	10 A	-	-
SEV 				
	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm <sup>2</sup> ]
	160 V	6 A	-	-

**1945119 PST 1,0/ 4-3,5****16 Commercial Data**

Order No.	1945119
Type	PST 1,0/ 4-3,5
Pieces per package	250
Net weight	0.426 g
GTIN	4017918883287
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1

## 1945119 PST 1,0/ 4-3,5

## 17 Combination tests

**PST 1,0/..-V**

IEC 61984

**Mechanical tests (A)**

Insertion/withdrawal force per position

Contact holder in insert  
Requirements >20 N**Durability tests (B)**Contact resistance  $R_1$ 

Insertion/withdrawal cycles

Contact resistance  $R_2$ Rated impulse voltage at sea level  
Voltage waveform  $\geq (1.2/50 \mu s)$ Power-frequency withstand voltage  
Voltage waveform  $\geq (50/60 \text{ Hz})$ **Thermal tests (C)**

Tested number of positions

Tested conductor cross section

Test current

Upper limiting temperature  
Requirements < 100°C**Climatic tests (D)**

Test sequence 1: low temperature storage

Test sequence 2: heat storage

Test sequence 3: noxious gas storage  
(ISO 6988)Rated impulse voltage at sea level  
Voltage waveform  $\geq (1.2/50 \mu s)$ Power-frequency withstand voltage  
Voltage waveform  $\geq (50/60 \text{ Hz})$ **Environmental and endurance tests (E)**

Specification

Degree of protection

**PTDA 1,5/..-PH**

IEC 61984

approx. 6 N / 5 N

Test passed

1.8 m $\Omega$ 

10

1.9 m $\Omega$ 

2.95 kV

1.39 kV

16

1.5 mm<sup>2</sup>

8 A

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm<sup>3</sup> SO<sub>2</sub> on 300 dm<sup>3</sup>/  
40 °C/1 cycle

2.95 kV

1.39 kV

IEC 61984:2001-06

Finger safety with IP20  
test finger**PT 1,5/..-PH**

IEC 61984

approx. 4 N / 4 N

Test passed

1.4 m $\Omega$ 

10

1.5 m $\Omega$ 

2.5 kV

2 kV

16

1.5 mm<sup>2</sup>

8 A

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm<sup>3</sup> SO<sub>2</sub> on 300 dm<sup>3</sup>/  
40 °C/1 cycle

2.5 kV

2 kV

IEC 61984:2001-06

Finger safety with IP20  
test finger**PT 1,5/..-PVH**

IEC 61984

approx. 4 N / 4 N

Test passed

1.6 m $\Omega$ 

10

1.7 m $\Omega$ 

2.5 kV

2 kV

16

1.5 mm<sup>2</sup>

8 A

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm<sup>3</sup> SO<sub>2</sub> on 300 dm<sup>3</sup>/  
40 °C/1 cycle

2.5 kV

2 kV

IEC 61984:2001-06

Finger safety with IP20  
test finger