

Data sheet

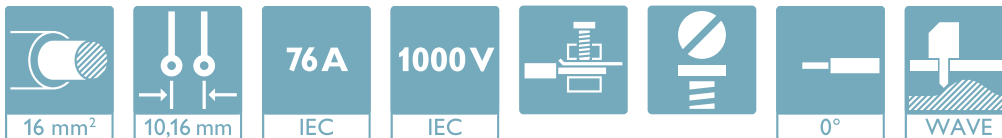
Order No.: 1017529

Type: TDPT 16/ 5-SC-10,16-ZB

PCB terminal block, Screw connection with tension sleeve



1 Main features



• No. of pos.	5	• Nominal current	76 A
• Conductor cross section	16 mm ²	• Nominal voltage	1000 V
• Color	green	• Connection direction	0 °
• Pitch	10.16 mm	• Type of packaging	packed in cardboard
• Connection method	Screw connection with tension sleeve		

2 Your advantages

- ✓ Easy to adapt, thanks to their identical size and the same pinning for Push-in spring connections as for screw connections
- ✓ Well-known connection principle allows worldwide use
- ✓ Low temperature rise, thanks to maximum contact force



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It can be downloaded at: phoenixcontact.net/product/1017529

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



1017529 TDPT 16/ 5-SC-10,16-ZB**5 item properties**

Order No.	1017529
Type	TDPT 16/ 5-SC-10,16-ZB
Range of articles	TDPT 16/...-SC
Pitch	10.16 mm
Number of positions	5
Connection method	Screw connection with tension sleeve
Drive form screw head	Slotted (L)
Mounting type	Wave soldering
Pin layout	Zigzag pinning W

5.1 Connection capacity

Conductor cross section, solid	0.75 mm ² to 16 mm ²
Conductor cross section, flexible	0.75 mm ² to 16 mm ²
Conductor cross section AWG/kcmil	20 to 6
2 conductors with same cross section, solid	0.5 mm ² to 6 mm ²
2 conductors with same cross section, stranded	0.5 mm ² to 6 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve	0.75 mm ² to 16 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve	0.75 mm ² to 16 mm ²
Stripping length	18 mm

5.2 Material data

Material of metal parts		
Note	WEEE/RoHS-compliant, whisker-free acc. to IEC 60068-2-82/JEDEC JESD 201	
Contact material	Cu alloy	
Surface characteristics	hot-dip tin-plated	
Insulating material data	Housing	Housing
Insulating material	PA	
CTI according to IEC 60112	600	
Flammability rating according to UL 94	V0	
Color	green (6021)	
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	

6 Dimensions**6.1 Dimensions for the product**

Length	31.9 mm
Width	51.82 mm
Height (without solder pin)	31.2 mm
Total height	34.7 mm
Solder pin [P]	3.5 mm
Dimension a	40.64 mm

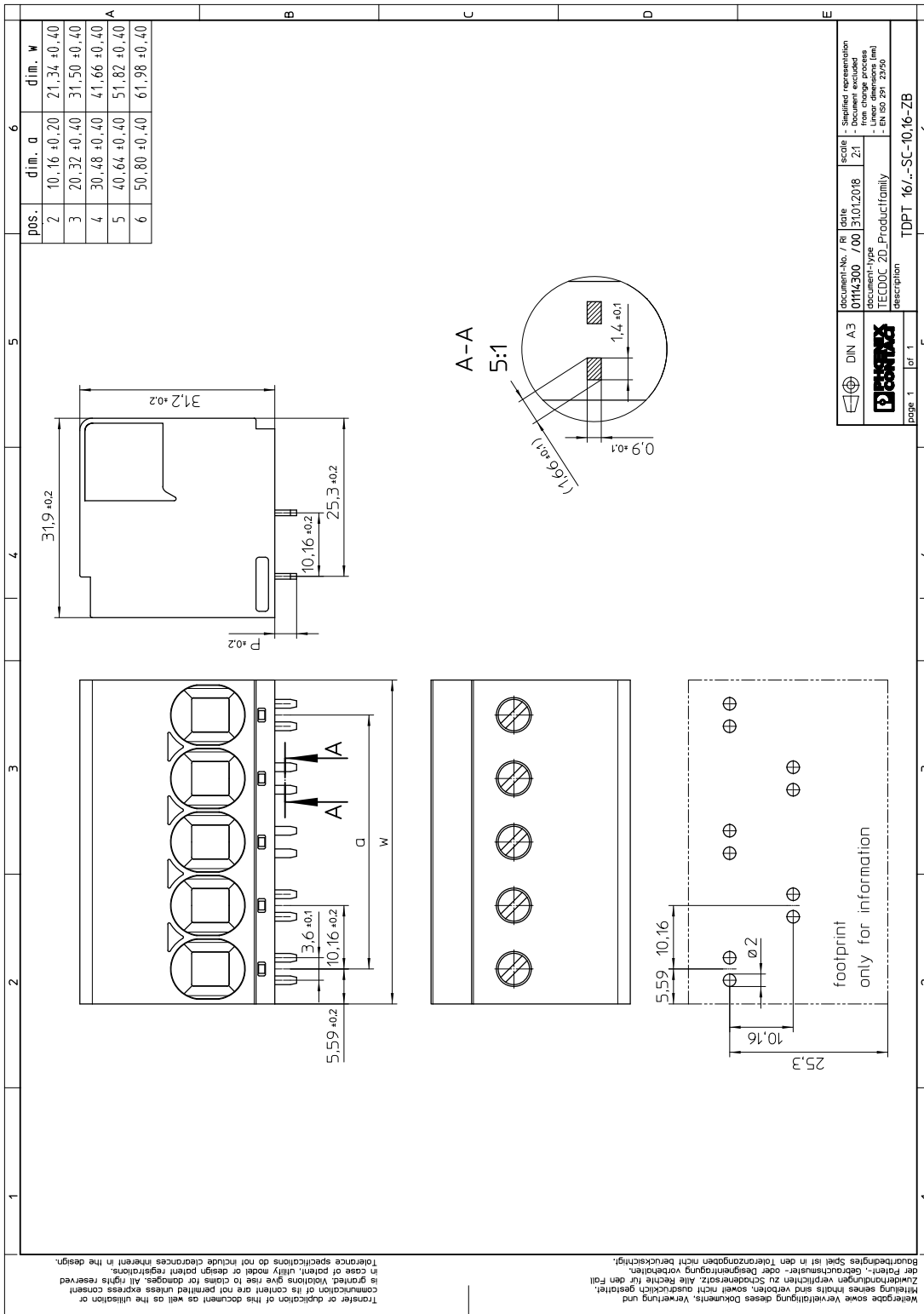
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6.2 Dimensions for PCB design

Hole diameter	1.85 mm
Pin dimensions	1,4 x 0,9 mm

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7 Series drawing



1017529 TDPT 16/ 5-SC-10,16-ZB**8 Packaging information**

Type of packaging	packed in cardboard
Pieces per package	50

9 Application**9.1 Temperature limit values**

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

9.2 Termination and connection method

Specification	IEC 60999-1:1999-11
Check for damage to conductor or loosening	Test passed

9.3 Pull-out test

Termination and connection method: pull-out test

Specification	IEC 60999-1:1999-11
Result	Test passed
Conductor cross section/conductor type/tractive force actual value	0.75 mm ² / stranded / > 30 N
Conductor cross section/conductor type/tractive force actual value	0.75 mm ² / solid / > 30 N
Conductor cross section/conductor type/tractive force actual value	16 mm ² / stranded / > 100 N
Conductor cross section/conductor type/tractive force actual value	16 mm ² / solid / > 100 N

1017529 TDPT 16/ 5-SC-10,16-ZB**10 Electrical tests****10.1 Electrical data**

Rated current / conductor cross section	76 A / 16 mm ²
Rated insulation voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
Contact resistance	0.18 mΩ
Degree of pollution	2

10.2 Short-time withstand current test

Specification	IEC 60947-7-4:2013-08
Result	Test passed
Conductor cross section/short-time current	16 mm ² / 303 A AC

10.3 Aging test (climatic impact and corrosion testing)

Specification	IEC 60947-7-4:2013-08
Result	Test passed
Contact resistance R ₁	0.18 mΩ / 16 mm ²
Test sequence 1: low temperature storage	-40 °C / 2 h
Test sequence 2: heat storage	168 h/105 °C
Test sequence 3: noxious gas storage (ISO 6988)	KFW 0.2 S/1 cycle
Contact resistance R ₂	0.18 mΩ / 16 mm ²
Rated impulse voltage at sea level Voltage waveform ≥ (1.2/50 μs)	9.8 kV
Power-frequency withstand voltage Voltage waveform ≥ (50/60 Hz)	4.2 kV

10.4 Insulation resistance

Specification	IEC 60512-3-1:2002-02
Result	Test passed

10.5 Mechanical connection test for the PCB terminal block

Specification	IEC 60947-7-4:2013-08
Result	Test passed

10.6 Temperature-rise test

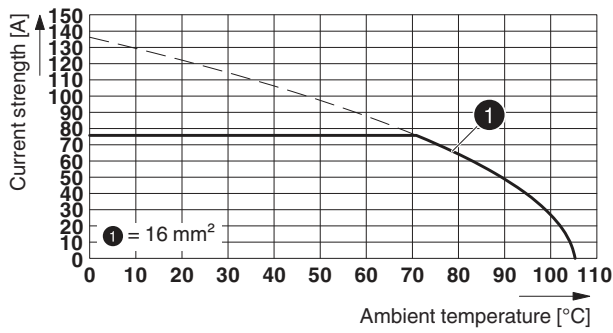
Specification	IEC 60947-7-4:2013-08
Result	Test passed

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11 Current carrying capacity/derating curves

Specification	IEC 60512-5-2:2002-02
Reduction factor	1
Number of positions	4

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1017529 TDPT 16/ 5-SC-10,16-ZB**12 Environmental and durability tests****12.1 Assessment of fire risk (glow wire test)**

Specification	IEC 60695-2-10:2013-04		
Result	Test passed		
Temperature	850 °C		
Time of exposure	5 s		

12.2 Vibration test

Specification	IEC 60068-2-6:2007-12
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
Contact interruption	

13 Approvals

cULus Recognized 			
Use group	B	C	D
mm ² /AWG/kcmil	20-6	20-6	20-6
Voltage	600 V	600 V	300 V
Current	58 A	58 A	10 A

1017529 TDPT 16/ 5-SC-10,16-ZB**14 Commercial Data**

Order No.	1017529
Type	TDPT 16/ 5-SC-10,16-ZB
Pieces per package	50
Net weight	51 g
GTIN	4055626501611
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1

15 Accessories

Description	Order No.	Type
Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.8 x 4.0 x 100 mm, 2-component grip, with non-slip grip	1204520	SZF 2-0,8X4,0