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## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

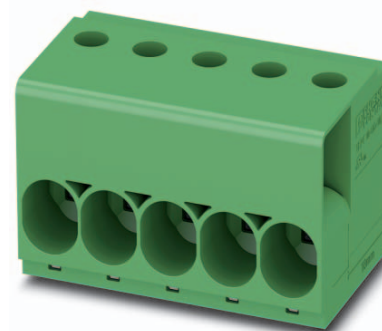


# Data sheet

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 <sup>2</sup>                   | • 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



Make sure you always use the latest documentation.

It can be downloaded at: [phoenixcontact.net/product/1017529](http://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 <sup>2</sup> to 16 mm <sup>2</sup> |
| Conductor cross section, flexible                                     | 0.75 mm <sup>2</sup> to 16 mm <sup>2</sup> |
| Conductor cross section AWG/kcmil                                     | 20 to 6                                    |
| 2 conductors with same cross section, solid                           | 0.5 mm <sup>2</sup> to 6 mm <sup>2</sup>   |
| 2 conductors with same cross section, stranded                        | 0.5 mm <sup>2</sup> to 6 mm <sup>2</sup>   |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.75 mm <sup>2</sup> to 16 mm <sup>2</sup> |
| Conductor cross section flexible, with ferrule with plastic sleeve    | 0.75 mm <sup>2</sup> to 16 mm <sup>2</sup> |
| 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 |

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

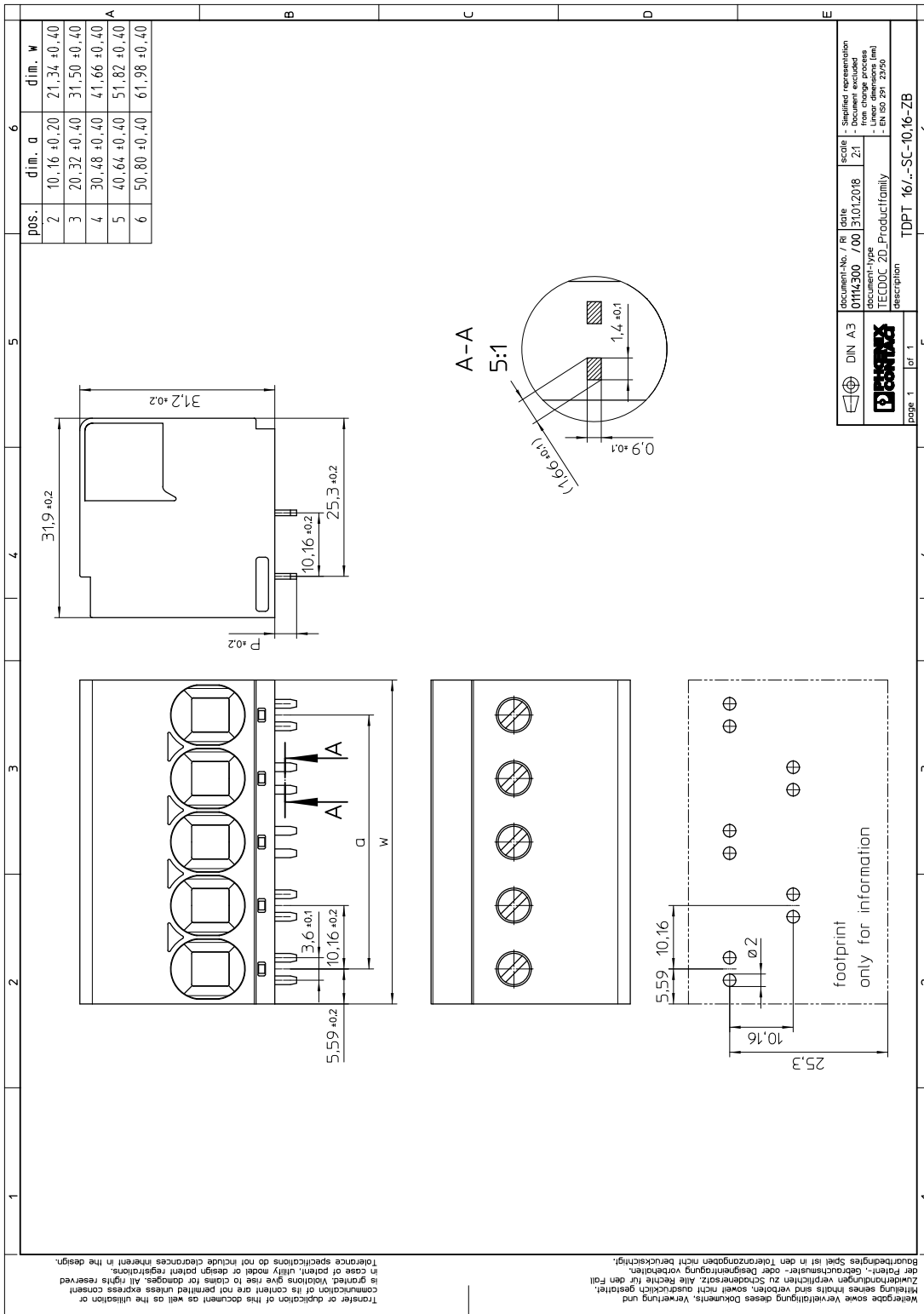
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**6.2 Dimensions for PCB design**

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

1017529 TDPT 16/ 5-SC-10,16-ZB

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 <sup>2</sup> / stranded / > 30 N |
| Conductor cross section/conductor type/tractive force actual value | 0.75 mm <sup>2</sup> / solid / > 30 N    |
| Conductor cross section/conductor type/tractive force actual value | 16 mm <sup>2</sup> / stranded / > 100 N  |
| Conductor cross section/conductor type/tractive force actual value | 16 mm <sup>2</sup> / 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 <sup>2</sup> |
| 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 <sup>2</sup> / 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 <sub>1</sub>                                    | 0.18 mΩ / 16 mm <sup>2</sup> |
| 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 <sub>2</sub>                                    | 0.18 mΩ / 16 mm <sup>2</sup> |
| Rated impulse voltage at sea level<br>Voltage waveform ≥ (1.2/50 μs) | 9.8 kV                       |
| Power-frequency withstand voltage<br>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**

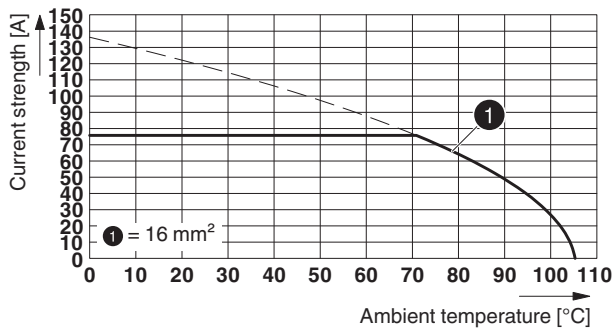
|               |                       |
|---------------|-----------------------|
| Specification | IEC 60947-7-4:2013-08 |
| Result        | Test passed           |

## 1017529 TDPT 16/ 5-SC-10,16-ZB

## 11 Current carrying capacity/derating curves

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

## Type: TDPT 16/...-SC-10,16-ZB




**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 <sup>2</sup> /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 |