

# TDPT 4/ 5-SC-6,35-ZB - PCB terminal block

1017517

<https://www.phoenixcontact.com/us/products/1017517>

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Printed circuit board terminal, nominal current: 41 A, rated voltage (III/2): 1000 V, nominal cross section: 4 mm<sup>2</sup>, number of potentials: 5, number of rows: 1, number of positions per row: 5, product range: TDPT 4/..-SC, pitch: 6.35 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Zigzag pinning W, Solder pin [P]: 3.5 mm, number of solder pins per potential: 1, type of packaging: packed in cardboard

## 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

## Commercial data

Item number	1017517
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AA14
Product key	AANFGA
GTIN	4055626501512
Weight per piece (including packing)	18.512 g
Weight per piece (excluding packing)	18.512 g
Customs tariff number	85369010
Country of origin	CN

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## Technical data

### Product properties

Product type	Printed circuit board terminal
Product family	TDPT 4/...-SC
Product line	COMBICON Terminals L
Number of positions	5
Pitch	6.35 mm
Number of connections	5
Number of rows	1
Number of potentials	5
Pin layout	Zigzag pinning W
Solder pins per potential	1

### Electrical properties

#### Properties

Nominal current $I_N$	41 A
Nominal voltage $U_N$	1000 V
Rated voltage (III/3)	800 V
Rated surge voltage (III/3)	8 kV
Rated voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
Rated voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV

### Connection data

#### Connection technology

Nominal cross section	4 mm <sup>2</sup>
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#### Conductor connection

Connection method	Screw connection with tension sleeve
Conductor cross-section rigid	0.2 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Conductor cross-section flexible	0.2 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Conductor cross-section AWG	24 ... 10
Conductor cross-section, flexible, with ferrule, without plastic sleeve	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
2 conductors with same cross section, rigid	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
2 conductors with same cross section, flexible	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Stripping length	10 mm
Drive form screw head	Slotted (L)
Tightening torque	0.6 Nm ... 0.8 Nm

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## Mounting

Mounting type	Wave soldering
Pin layout	Zigzag pinning W

## Material specifications

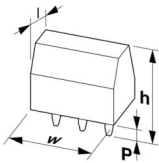
### Material data - contact

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 µm - 8 µm Sn)
Metal surface soldering area (top layer)	Tin (4 µm - 8 µm Sn)

### Material data - housing

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

Dimensional drawing	
Pitch	6.35 mm
Width [w]	32.55 mm
Height [h]	26.9 mm
Length [l]	20.75 mm
Installed height	23.4 mm
Solder pin length [P]	3.5 mm
Pin dimensions	0.9 x 0.9 mm

### PCB design

Hole diameter	1.7 mm
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## Mechanical tests

Test for conductor damage and slackening

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Specification	IEC 60999-1:1999-11
Result	Test passed

## Pull-out test

Specification	IEC 60999-1:1999-11
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
	6 mm <sup>2</sup> / solid / > 80 N
	6 mm <sup>2</sup> / flexible / > 80 N

## Electrical tests

### Temperature-rise test

Specification	IEC 60947-7-4:2013-08
Requirement temperature-rise test	The sum of ambient temperature and temperature rise of the PCB terminal block shall not exceed the upper limiting temperature.

### Short-time withstand current

Specification	IEC 60947-7-4:2013-08
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### Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 5 MΩ

### Air clearances and creepage distances |

Specification	IEC 60947-1:2007-06 + A1:2010-12 + A2:2014-09
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	800 V
Rated surge voltage (III/3)	8 kV
minimum clearance value - non-homogenous field (III/3)	8 mm
minimum creepage distance (III/3)	10 mm
Rated insulation voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
minimum clearance value - non-homogenous field (III/2)	8 mm
minimum creepage distance (III/2)	8 mm
Rated insulation voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV
minimum clearance value - non-homogenous field (II/2)	8 mm
minimum creepage distance (II/2)	8 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

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Amplitude	0.35 mm (10 Hz ... 60.1 Hz)
Acceleration	5g (60.1 Hz ... 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis

## Glow-wire test

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

## Aging

Specification	IEC 60947-7-4:2013-08
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## Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 105 °C
Ambient temperature (operation)	-40 °C ... 105 °C (Depending on the current carrying capacity/derating curve)

## 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 ... 105 °C

## Packaging specifications

Type of packaging	packed in cardboard
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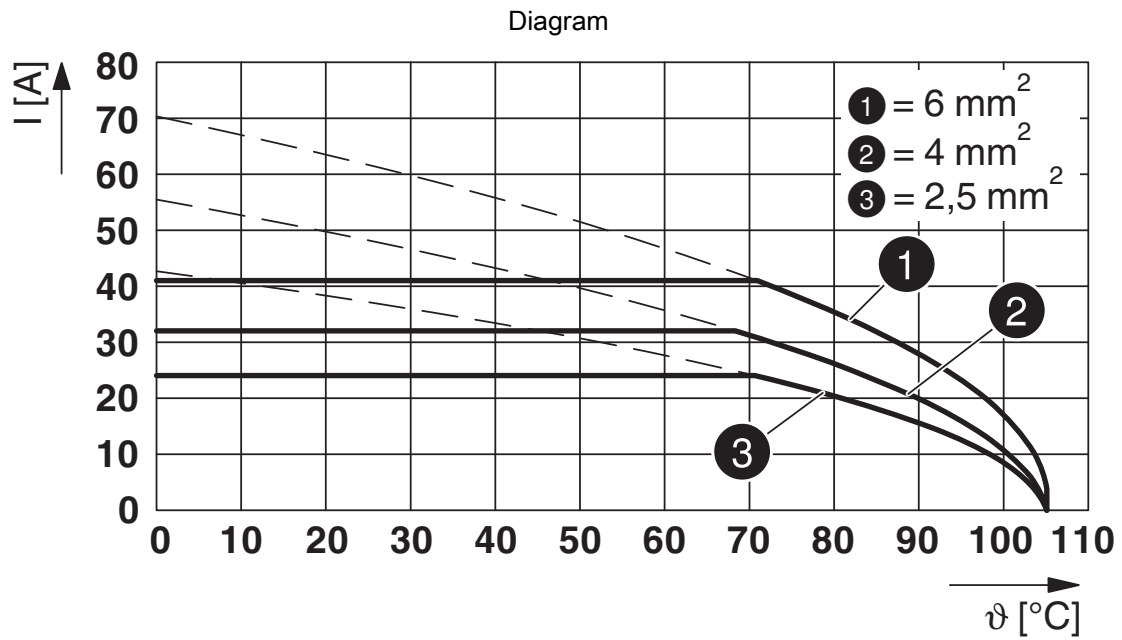
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## Drawings



Type: TDPT 4/...-SC-6,35-ZB

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1017517>

 <b>cULus Recognized</b> Approval ID: E60425-20180122				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
B	600 V	30 A	24 - 10	-
C	600 V	30 A	24 - 10	-

 <b>VDE approval of drawings</b> Approval ID: 40049168				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine	1000 V	41 A	-	0.2 - 6

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## Classifications

### ECLASS

ECLASS-13.0	27460101
ECLASS-15.0	27460101

### ETIM

ETIM 10.0	EC002643
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)