2018-04-23
Product version 00
Document revision 00

Data sheet

Order No.: 1017516

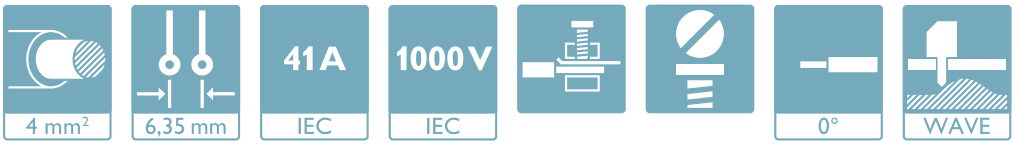
Type: TDPT 4/ 4-SC-6,35-ZB

PCB terminal block, Screw connection with tension sleeve



The figure shows a 5-pos. version of the product

1 Main features



- No. of pos. 4
- Conductor cross section 4 mm²
- Color green
- Pitch 6.35 mm
- Connection method Screw connection with tension sleeve
- Nominal current 41 A
- Nominal voltage 1000 V
- Connection direction 0 °
- Type of packaging packed in cardboard

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/1017516

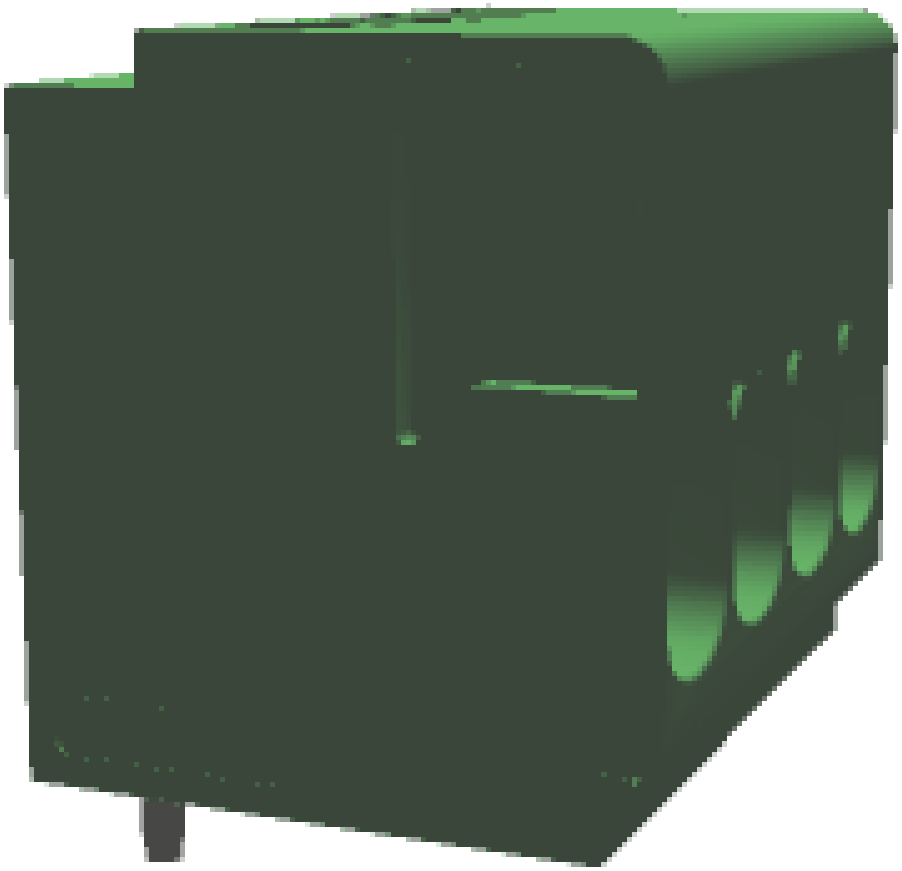
© PHOENIX CONTACT 2018

3 Table of contents

1 Main features ... 1
2 Your advantages ... 1
3 Table of contents ... 2
4 3D model in PDF can be activated (Acrobat Reader only) ... 3
5 item properties ... 4
5.1 Connection capacity ... 4
5.2 Material data ... 4
6 Dimensions ... 4
6.1 Dimensions for the product ... 4
6.2 Dimensions for PCB design ... 5
7 Series drawing ... 6
8 Packaging information ... 7
9 Application ... 7
9.1 Temperature limit values ... 7
9.2 Termination and connection method ... 7
9.3 Pull-out test ... 7
10 Electrical tests ... 8
10.1 Electrical data ... 8
10.2 Short-time withstand current test ... 8
10.3 Aging test (climatic impact and corrosion testing) ... 8
10.4 Insulation resistance ... 8
10.5 Mechanical connection test for the PCB terminal block ... 8
10.6 Temperature-rise test ... 8
11 Current carrying capacity/derating curves ... 9
12 Environmental and durability tests ... 10
12.1 Assessment of fire risk (glow wire test) ... 10
12.2 Vibration test ... 10
13 Approvals ... 10
14 Commercial Data ... 11
15 Accessories ... 11

© PHOENIX CONTACT 2018

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



© PHOENIX CONTACT 2018

5 item properties

Order No.	1017516
Type	TDPT 4/ 4-SC-6,35-ZB
Range of articles	TDPT 4/..-SC
Pitch	6.35 mm
Number of positions	4
Connection method	Screw connection with tension sleeve
Drive form screw head	Slotted (L)
Screw thread	M3
Tightening torque	0.6 Nm ... 0.8 Nm
Mounting type	Wave soldering

5.1 Connection capacity

Conductor cross section, solid	0.2 mm² to 6 mm²
Conductor cross section, flexible	0.2 mm² to 6 mm²
Conductor cross section AWG/kcmil	24 to 10
2 conductors with same cross section, solid	0.2 mm² to 1.5 mm²
2 conductors with same cross section, stranded	0.2 mm² to 1.5 mm²
Conductor cross section flexible, with ferrule without plastic sleeve	0.2 mm² to 4 mm²
Conductor cross section flexible, with ferrule with plastic sleeve	0.2 mm² to 4 mm²
Stripping length	10 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	20.75 mm
Width	26.2 mm
Height (without solder pin)	23.4 mm
Total height	26.9 mm
Solder pin [P]	3.5 mm
Dimension a	19.05 mm

© PHOENIX CONTACT 2018

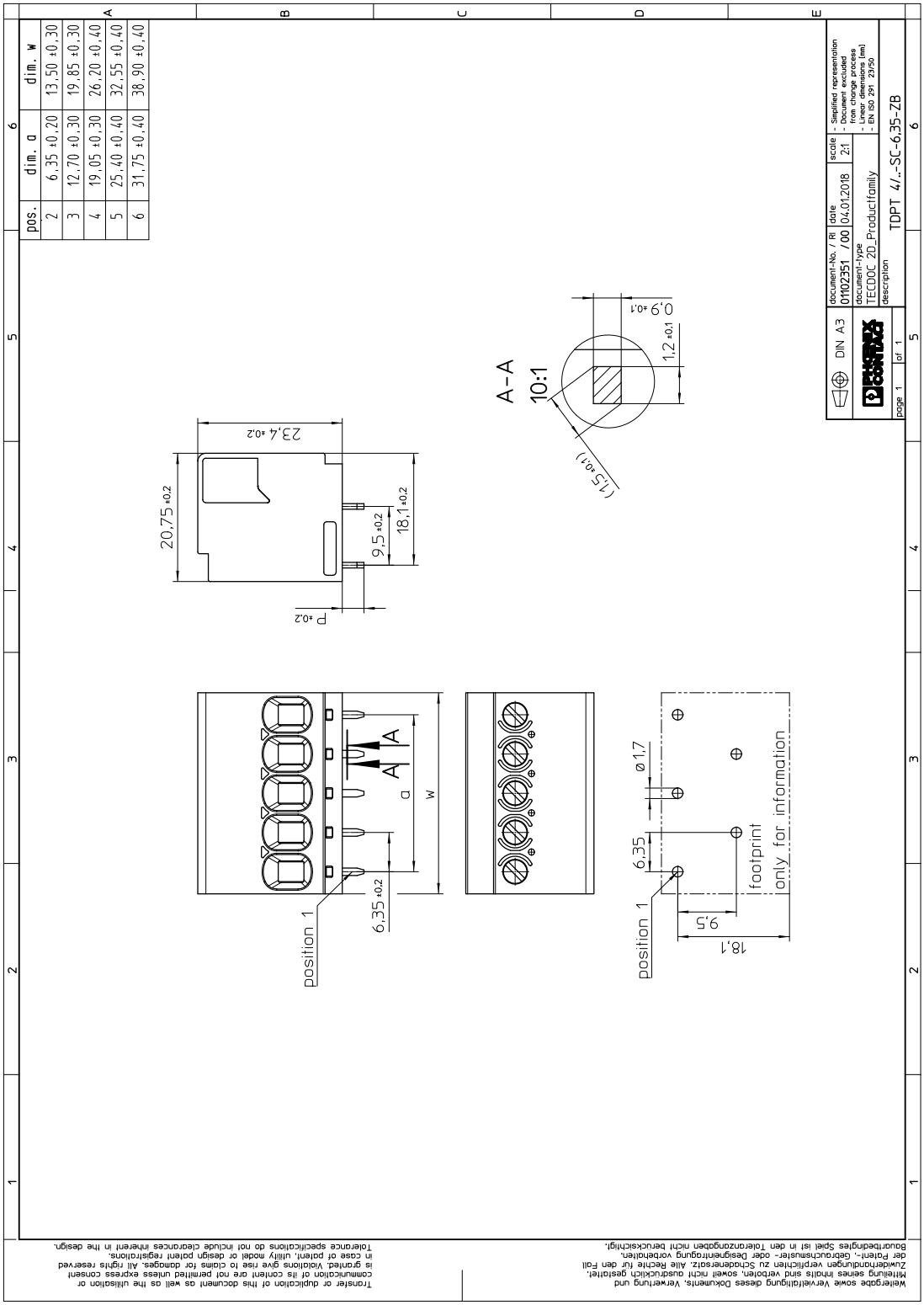
6.2 Dimensions for PCB design

Hole diameter	1.7 mm

© PHOENIX CONTACT 2018

1017516 TDPT 4/ 4-SC-6,35-ZB

7 Series drawing



Weitergabe sowie Vervielfältigung dieses Dokuments, Verwertung und Mitteilung seines Inhalts sind verboten, soweit nicht ausdrücklich gestattet. Zuwiderhandlungen verpflichten zu Schadenersatz. Alle Rechte für den Fall der Patent-, Gebrauchsmuster- oder Designeintragung vorbehalten.

Transfer or duplication of this document as well as the utilisation or communication of its content are not permitted unless express consent is granted. Violations give rise to claims for damages. All rights reserved in case of patent, utility model or design patent registrations.

Tolerance specifications do not include clearances inherent in the design.

Gaugetoleranzen Spiel ist in den Toleranzangaben nicht berücksichtigt.

© PHOENIX CONTACT 2018

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	0.2 mm^2 / stranded / > 10 N
Conductor cross section/conductor type/tractive force actual value	0.2 mm^2 / solid / > 10 N
Conductor cross section/conductor type/tractive force actual value	6 mm^2 / stranded / > 80 N
Conductor cross section/conductor type/tractive force actual value	6 mm^2 / solid / > 80 N
Conductor cross section/conductor type/tractive force actual value	4 mm^2 / stranded with ferrule / > 60 N

© PHOENIX CONTACT 2018

10 Electrical tests

10.1 Electrical data

Rated current / conductor cross section	41 A / 4 mm²
Rated insulation voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
Contact resistance	0.39 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	6 mm² / 130 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	0.39 mΩ / 6 mm²
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	0.42 mΩ / 6 mm²
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

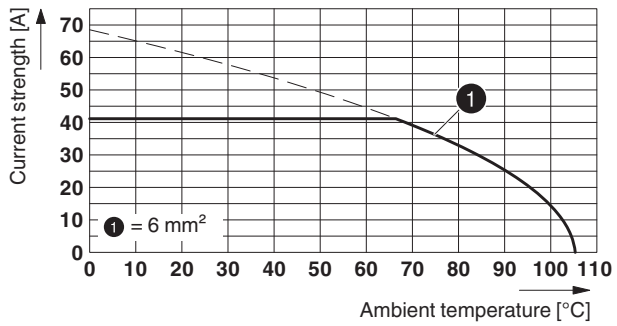
Specification	IEC 60947-7-4:2013-08
Result	Test passed

© PHOENIX CONTACT 2018

11 Current carrying capacity/derating curves

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

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



© PHOENIX CONTACT 2018

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	24-10	24-10	24-10	
Voltage	600 V	600 V	300 V	
Current	30 A	30 A	10 A	

© PHOENIX CONTACT 2018

14 Commercial Data

Order No.	1017516
Type	TDPT 4/ 4-SC-6,35-ZB
Pieces per package	50
Net weight	15.278 g
GTIN	4055626501505
	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: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip	1204517	SZF 1-0,6X3,5

© PHOENIX CONTACT 2018