

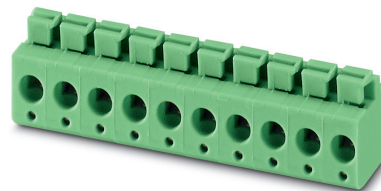
Data sheet

2020-12-11
Product version 02
Document revision 0

Order No.: 1792944

Type: PTS 1,5/10-5,0-H

PCB terminal block, Push-in spring connection



1 Main features



- | | | | |
|---------------------------|---------------------------|------------------------|---------------------|
| • No. of pos. | 10 | • Nominal current | 16 A |
| • Conductor cross section | 1.5 mm ² | • Nominal voltage | 400 V |
| • Color | green (6021) | • Connection direction | 0 ° |
| • Pitch | 5 mm | • Type of packaging | packed in cardboard |
| • Connection method | Push-in spring connection | | |

2 Your advantages

- ✓ Time saving push-in connection, tools not required
- ✓ Defined contact force ensures that contact remains stable over the long term
- ✓ Finger-operated release button for very convenient operation
- ✓ Quick and convenient testing using integrated test option
- ✓ Largest possible clamping space in a small component size



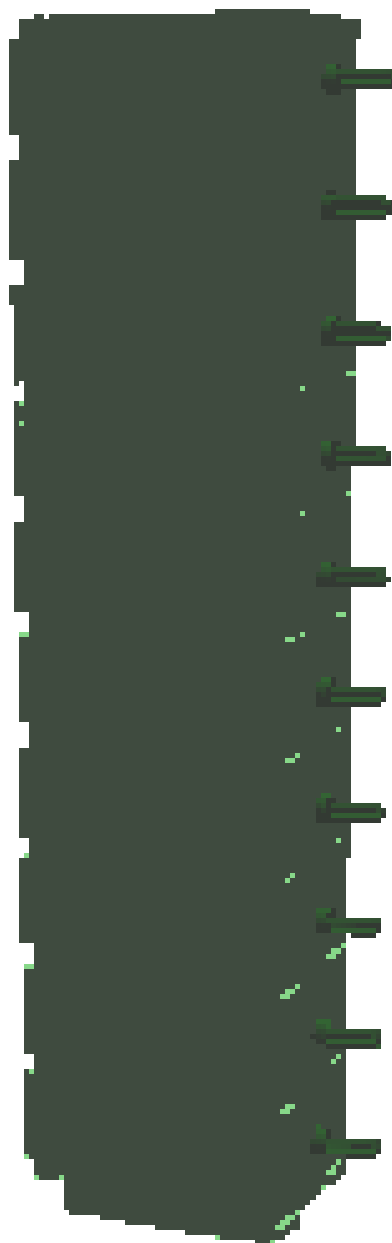
Make sure you always use the latest documentation.
It can be downloaded at: phoenixcontact.net/product/1792944

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



1792944 PTS 1,5/10-5,0-H**5 General Technical Data****5.1 item properties**

Order No.	1792944
Type	PTS 1,5/10-5,0-H
Product type	PCB terminal block
Range of articles	PTS 1,5/...-H
Pitch	5 mm
Number of positions	10
Number of levels	1
Number of connections	10
Number of potentials	10
Connection method	Push-in spring connection
Mounting type	Wave soldering
Connection direction of the conductor to the PCB	0 °
Pin layout	Linear pinning
Solder pins per potential	1
Type	PC termination block

5.2 Connection capacity

Conductor cross section, rigid	0.14 mm ² ... 2.5 mm ²
Conductor cross section, flexible	0.14 mm ² ... 2.5 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 1.5 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve	0.25 mm ² ... 1.5 mm ²
Stripping length	8 mm

5.3 Connection capacity AWG

Conductor cross section AWG	26 ... 14
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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
Terminal point surface	, Tin (4 - 8 µm Sn)
Soldering area surface	, Tin (4 - 8 µm Sn)
Surface characteristics	hot-dip tin-plated

6.2 Material of plastic parts

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

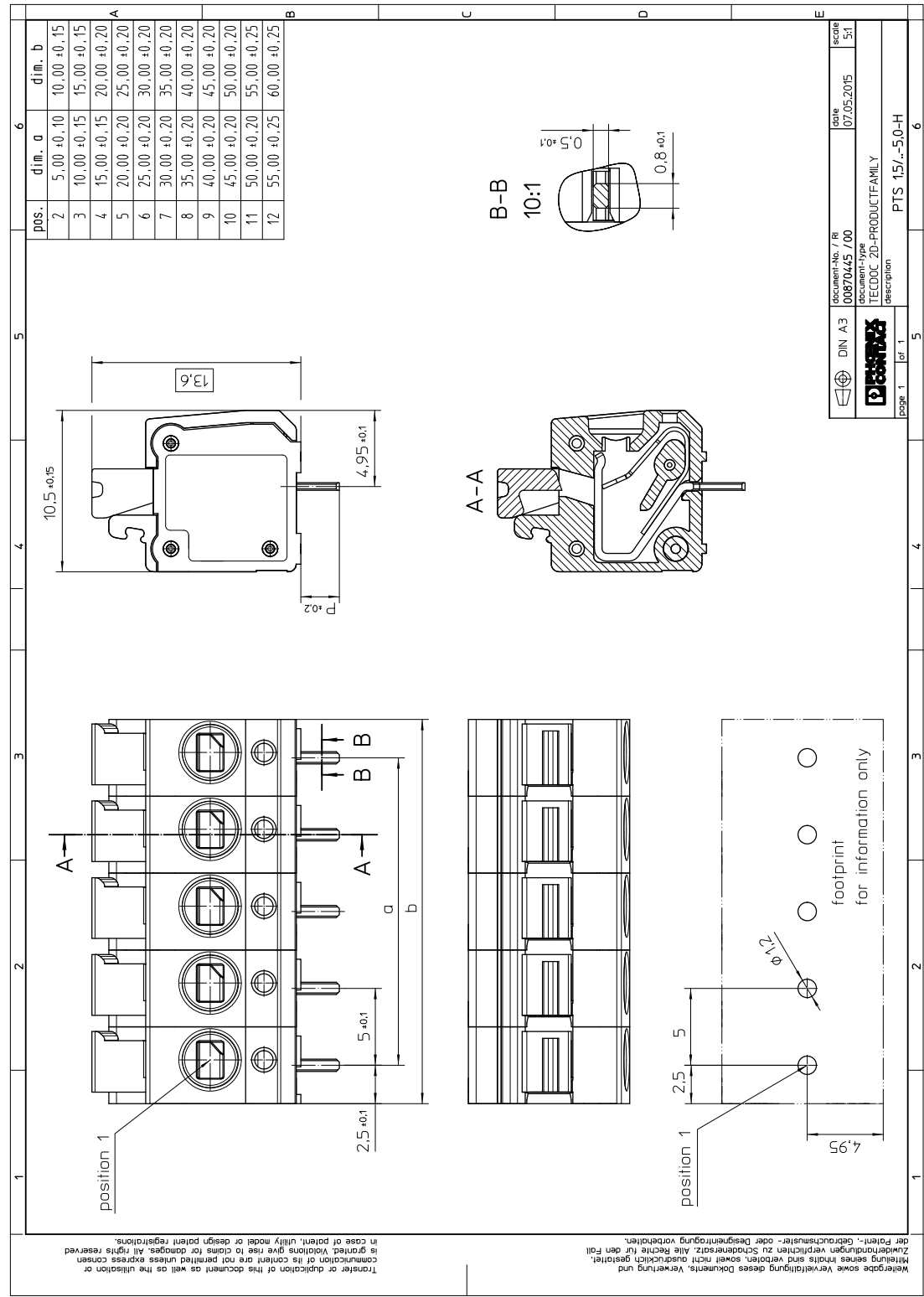
1792944 PTS 1,5/10-5,0-H

	Housing
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

1792944 PTS 1,5/10-5,0-H**7 Dimensions****7.1 Dimensions for the product**

Length	10.5 mm
Width	50 mm
Height (without solder pin)	13.6 mm
Total height	16.1 mm
Solder pin [P]	2.5 mm

8 Series drawing



1792944 PTS 1,5/10-5,0-H**8.1 Dimensions for PCB design**

Hole diameter	1.2 mm
Pin dimensions	0.83 x 0.5 mm

9 Application**10 Packaging information**

Type of packaging	packed in cardboard
Pieces per package	100

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 (Depending on the current carrying capacity/derating curve)

1792944 PTS 1,5/10-5,0-H**11 Mechanical tests****11.1 Pull-out test**

Specification	IEC 60999-1:1999-11
Result	Test passed
Conductor cross section/conductor type/tractive force actual value	0.14 mm ² / solid / > 10 N
Conductor cross section/conductor type/tractive force actual value	0.14 mm ² / flexible / > 10 N
Conductor cross section/conductor type/tractive force actual value	2.5 mm ² / solid / > 50 N
Conductor cross section/conductor type/tractive force actual value	2.5 mm ² / flexible / > 50 N

11.2 Check for damage to conductor or loosening

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

1792944 PTS 1,5/10-5,0-H**12 Electrical tests****12.1 Electrical data**

Rated current / conductor cross section	16 A / 1.5 mm ²
Rated insulation voltage (III/2)	400 V
Rated surge voltage (III/2)	4 kV
Contact resistance	0.75 mΩ
Degree of pollution	2

12.2 Air and creepage distances

Component	PCB terminal block		
Specification	IEC 60947-1:2007-06 + A1:2010-12 + A2:2014-09		
Mains type	unearthed mains		
Insulating material group	I		
Comparative tracking index (IEC 60112:2003-01)	CTI 600		
Rated insulation voltage	250 V	400 V	630 V
Rated surge voltage	4 kV	4 kV	4 kV
Degree of pollution	3	2	2
Overvoltage category	III	III	II
Minimum clearance case A (inhomogeneous field)	3 mm	3 mm	3 mm
Minimum value of the creepage path requirement in acc. with table	3.2 mm	3 mm	3.2 mm

12.3 Short-time withstand current test

Specification	IEC 60947-7-4:2013-08
Result	Test passed
Conductor cross section/short-time current	2.5 mm ² / 48 A

12.4 Aging test (climatic impact and corrosion testing)

Specification	IEC 60947-7-4:2013-08
Result	Test passed
Contact resistance R ₁	0.75 mΩ / 2.5 mm ²
Test sequence 1: low temperature storage	-40 °C / 2 h
Test sequence 2: heat storage	168 h/100°C
Test sequence 3: noxious gas storage (ISO 6988)	KFW 0.2 S/1 cycle
Contact resistance R ₂	0.93 mΩ / 2.5 mm ²
Rated impulse voltage at sea level Voltage waveform ≥ (1.2/50 μs)	4.8 kV
Power-frequency withstand voltage Voltage waveform ≥ (50/60 Hz)	3.1 kV

12.5 Insulation resistance

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Specification	IEC 60512-3-1:2002-02
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Result	Test passed
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Insulation resistance, neighboring positions	> 2 TΩ
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12.6 Mechanical connection test for the PCB terminal block

Specification	IEC 60947-7-4:2013-08
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Result	Test passed
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12.7 Temperature rise test

Specification	IEC 60947-7-4:2013-08
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Result	Test passed
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Requirement temperature-rise test	The sum of ambient temperature and temperature rise of the PCB terminal block shall not exceed the upper limiting temperature.
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Conductor cross section/test current/temperature rise	2.5 mm ² / 16 A / 22.1 K
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1792944 PTS 1,5/10-5,0-H**13 Current carrying capacity/derating curves**

Specification

IEC 60947-7-4:2013-08

Note

Representation based on IEC 60512-5-2:2002-02

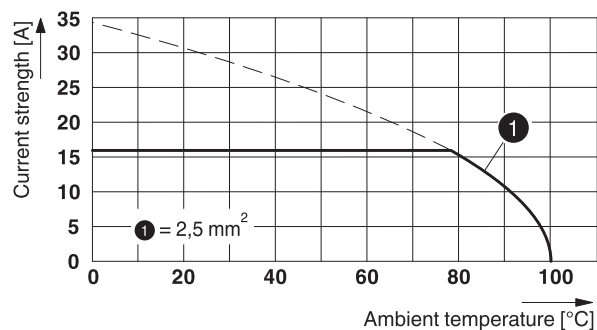
Reduction factor

1

Number of positions

4

Conductor cross section

1.5 mm²**Type: PTS 1,5/ 4-5,0-H****Tested according to DIN EN 60512-5-2:2003-01****Reduction factor = 1****Number of positions: 4**

1792944 PTS 1,5/10-5,0-H**14 Environmental and durability tests****14.1 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
Note	The connected conductor loops were guided to the test sample at a distance of approx. 10 cm.

14.2 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		

14.3 Shock protection

Specification	IEC 60529:1989-11 + AMD 1:1999-11 + AMD 2:2013-08
Back of the hand protection (Ball ø 50)	guaranteed
Finger protection (movable test finger)	guaranteed

1792944 PTS 1,5/10-5,0-H**15 Approvals / Certificates**

IECEE CB Scheme 	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm ²]
	400 V	16 A	-	0.14 - 2.5
EAC 				
VDE Zeichengenehmigung 	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm ²]
	400 V	16 A	-	0.14 - 2.5
cULus Recognized 	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm ²]
Usegroup B				
Factory wiring	300 V	16 A	26 - 14	-
	300 V	15 A	26 - 14	-
Usegroup D				
	300 V	10 A	26 - 14	-

1792944 PTS 1,5/10-5,0-H**16 Commercial Data**

Order No.	1792944
Type	PTS 1,5/10-5,0-H
Pieces per package	100
Net weight	7.985 g
GTIN	4046356616423
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1