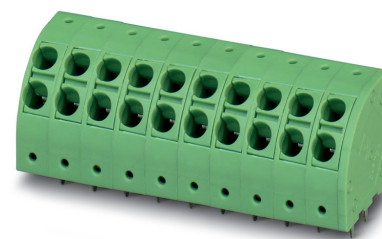


Item No.: 1725302

Type: PTDA 2,5/ 2-5,0

PCB terminal block, Push-in spring connection



The figure shows a 10-position version of the product

1 Main features



- | | | | |
|---------------------------|---------------------------|------------------------|---------------------|
| • No. of pos. | 2 | • Nominal current | 24 A |
| • Conductor cross section | 2.5 mm ² | • Nominal voltage | 400 V |
| • Color | green (6021) | • Connection direction | 45 ° |
| • 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
- ✓ Potentials can be easily looped through – ideal for BUS applications
- ✓ Quick and convenient testing using integrated test option
- ✓ Rounded type for individual device design
- ✓ Two solder pins reduce the mechanical strain on the soldering spots

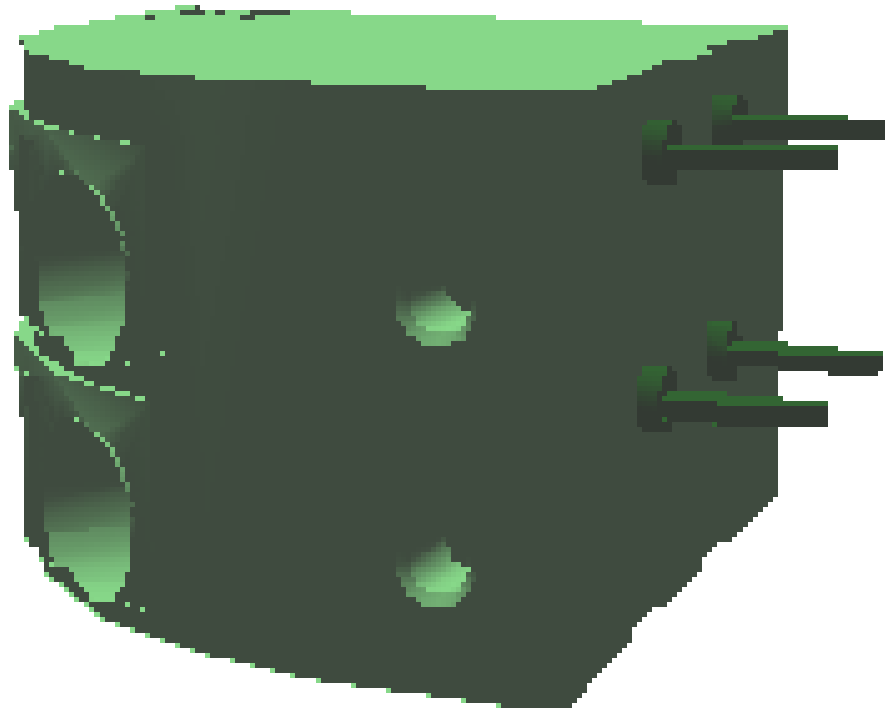


Make sure you always use the latest documentation.
It can be downloaded at: phoenixcontact.net/product/1725302

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



1725302 PTDA 2,5/ 2-5,0**5 General Technical Data****5.1 item properties**

Item no.	1725302
Type	PTDA 2,5/ 2-5,0
Product type	PCB terminal block
Range of articles	PTDA 2,5/
Pitch	5 mm
Number of positions	2
Number of rows	1
Number of connections	4
Number of potentials	2
Connection method	Push-in spring connection
Mounting type	Wave soldering
Connection direction of the conductor to the PCB	45 °
Pin layout	Linear double pinning
Solder pins per potential	2

1725302 PTDA 2,5/ 2-5,0**6 Conductor connection****6.1 Connection capacity**

Conductor cross section, rigid	0.2 mm ² ... 2.5 mm ²
Conductor cross section, flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve	0.5 mm ² ... 2.5 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve	0.5 mm ² ... 1 mm ²
2 conductors with same cross section, solid	0.2 mm ² ... 2.5 mm ²
2 conductors with same cross section, stranded	0.2 mm ² ... 2.5 mm ²
2 conductors with same cross section, stranded, with ferrule without plastic sleeve	0.5 mm ² ... 2.5 mm ²
2 conductors with the same cross section flexible with TWIN ferrule and plastic sleeve	0.5 mm ² ... 1 mm ²
Stripping length	10 mm

6.2 Connection capacity AWG

Conductor cross section AWG	24 ... 14
-----------------------------	-----------

7 Material properties**7.1 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	Tin-plated

7.2 Material of plastic parts

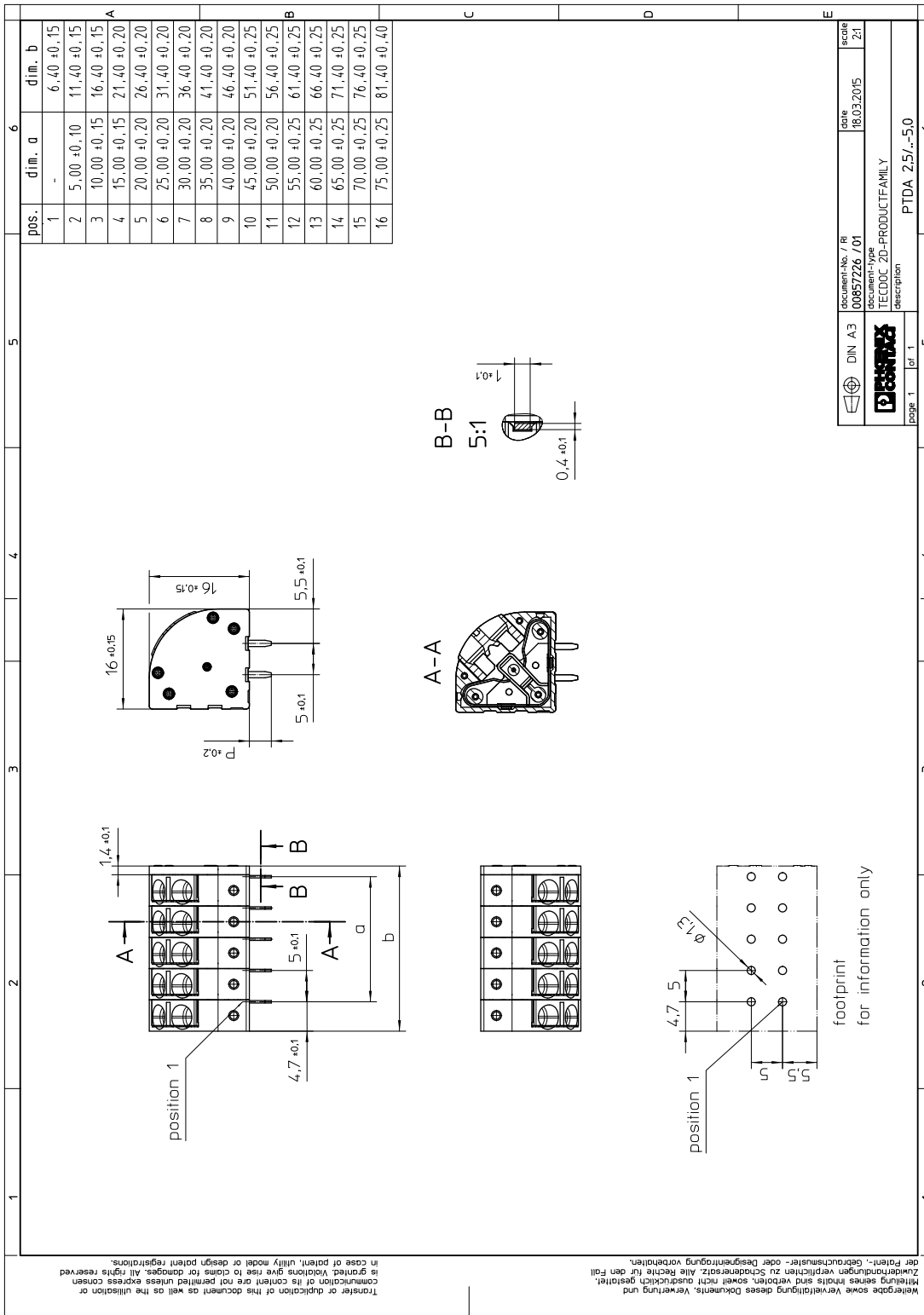
	Housing
Color	green (6021)
Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0
Glow wire flammability index GWFI according to EN 60695-2-12	850
Glow wire ignition temperature GWIT according to EN 60695-2-13	775
Temperature for the ball pressure test according to EN 60695-10-2	125 °C

1725302 PTDA 2,5/ 2-5,0**8 Dimensions****8.1 Dimensions for the product**

Length	16 mm
Width	11.4 mm
Height (without solder pin)	16 mm
Total height	19.5 mm
Solder pin [P]	3.5 mm

1725302 PTDA 2,5/ 2-5,0

9 Series drawing



1725302 PTDA 2,5/ 2-5,0**10 Product notes****10.1 General information**

Note on application	Maximum permissible outside diameter of the wire insulation ≤ 3.5 mm
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10.2 Dimensions for PCB design

Hole diameter	1.3 mm
Pin dimensions	1 x 0.4 mm
Pin spacing	5 mm

11 Application**12 Packaging information**

Type of packaging	packed in cardboard
Pieces per package	50

12.1 Temperature limit values

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 100 °C (dependent on the derating curve)

1725302 PTDA 2,5/ 2-5,0**13 Mechanical tests****13.1 Pull-out test**

Specification	IEC 60998-2-2:2002-12
Result	Test passed
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	0.2 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

13.2 Bending test

Specification	IEC 60998-2-2:2002-12
Result	Test passed

13.3 Check for damage to conductor or loosening

Specification	IEC 60998-2-2:2002-12
Result	Test passed

13.4 Electrical performance test

Specification	IEC 60998-2-2:2002-12
Result	Test passed

1725302 PTDA 2,5/ 2-5,0**14 Electrical tests**

Rated current / conductor cross section	24 A / 2.5 mm ²
Rated insulation voltage (III/2)	400 V
Rated surge voltage (III/2)	4 kV
Contact resistance	0.6 mΩ
Degree of pollution	2

14.1 Air and creepage distances

Component	PCB terminal block		
Specification	IEC 60664-1:2007-04		
Mains type	unearthed mains		
Insulating material group	I		
Comparative tracking index (IEC 60112:2003-01)	CTI 600		
Rated insulation voltage	320 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	4 mm	2 mm	3.2 mm

14.2 Insulation resistance

Specification	IEC 60998-1:2002-12
Result	Test passed
Insulation resistance, neighboring positions	> 5 MΩ

14.3 Temperature rise test

Specification	IEC 60998-2-1:2002-12
Result	Test passed
Requirement temperature-rise test	Increase in temperature ≤ 45 K
Conductor cross section/test current/temperature rise	2.5 mm ² / 24 A / 36 K

14.4 Impulse withstand voltage test

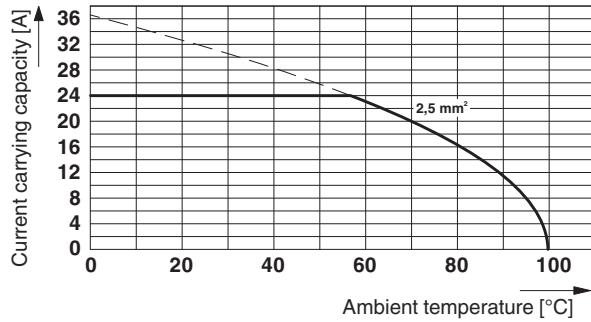
Result	Test passed
Specification	IEC 60664-1:1992-10 + A1:2000-02 + A2:2002-05
Rated surge voltage	4 kV
Surge voltage between neighboring positions	4.8 kV

1725302 PTDA 2,5/ 2-5,0

15 Current carrying capacity/derating curves

Specification	Following IEC 60512-5-2:2002-02
Reduction factor	1
Number of positions	5
Conductor cross section	2.5 mm ²

Type: PTDA 2,5/...-5,0



1725302 PTDA 2,5/ 2-5,0**16 Environmental and durability tests****16.1 Vibration test**

Specification	IEC 60068-2-6:1995-03
Result	Test passed
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 - 60.1 Hz)
Acceleration	5g (60.1 - 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis
Note	Test object without conductor connection, no damage.

16.2 Assessment of fire risk (glow wire test)

Specification	IEC 60998-1:2002-12
Result	Test passed
Temperature	850 °C
Time of exposure	5 s

Protection against electric shock

Specification	IEC 60998-2-2:2002-12
Result	Test passed

16.3 Shock protection

Specification	IEC 61032:1997-12
Back of the hand protection (Ball ø 50)	guaranteed
Finger protection (movable test finger)	guaranteed
Note	unenclosed basic insulation - protected against finger contact with IP20 test finger in acc. with IEC 60529 when connected, above the PCB

16.4 Mechanical strength/tumbling barrel

Specification	IEC 60998-1:2002-12
Result	Test passed
Height of fall	50 cm
Number of drop cycles	50

16.5 Resistance to ageing, humidity and penetration of solids

Specification	IEC 60998-1:2002-12
Result	Test passed
Dry heat	168 h/100°C
Damp heat	48 h/30 °C/92 %

16.6 Test of the power frequency electric strength

1725302 PTDA 2,5/ 2-5,0





Specification	IEC 60998-1:2002-12
Result	Test passed
Test voltage between neighboring positions	3.5 kV

16.7 Testing in a saturated atmosphere in the presence of sulfur dioxide

Specification	DIN 50018-EN:1997-06
Result	Test passed
Corrosive stress	KFW 1.0 S/1 cycle
Conductor cross section	0.2 mm ² to 2.5 mm ²

1725302 PTDA 2,5/ 2-5,0

17 Approvals / Certificates

IECEE CB Scheme 	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm ²]
	250 V	24 A	-	0.2 - 2.5
EAC 				
cULus Recognized 	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm ²]
Usegroup B	300 V	15 A	24 - 14	-
Usegroup D	300 V	10 A	24 - 14	-
CCA	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm ²]
	250 V	24 A	-	0.2 - 2.5
VDE Gutachten mit Fertigungsüberwachung 	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm ²]
	250 V	24 A	-	0.2 - 2.5

1725302 PTDA 2,5/ 2-5,0**18 Commercial Data**

Item no.	1725302
Type	PTDA 2,5/ 2-5,0
Pieces per package	50
Net weight	3.174 g
GTIN	4046356129251
	Information that applies locally, see link on page 1

19 Accessories

Description	Item 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