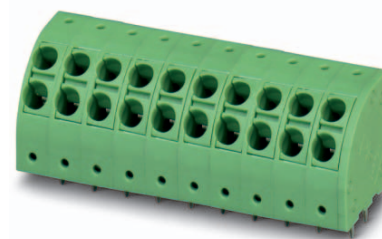


Order No.: 1725445

Type: PTDA 2,5/13-5,0

PCB terminal block, Push-in spring connection



The figure shows a 10-position version of the product

1 Main features



- | | | | |
|---------------------------|---------------------------|------------------------|---------------------|
| • No. of pos. | 13 | • Nominal current | 24 A |
| • Conductor cross section | 2.5 mm ² | • Nominal voltage | 400 V |
| • Color | green | • 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



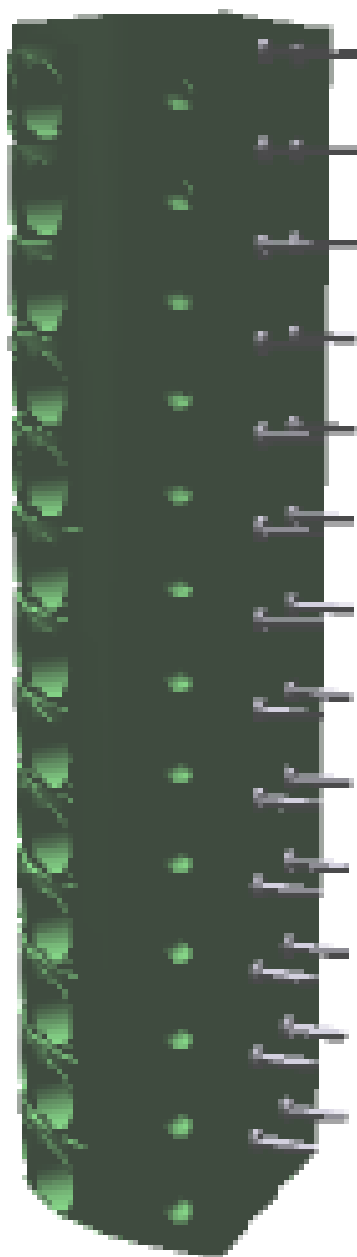
Make sure you always use the latest documentation.
It can be downloaded at: phoenixcontact.net/product/1725445

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1725445 PTDA 2,5/13-5,0

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



1725445 PTDA 2,5/13-5,0**5 item properties**

Order No.	1725445
Type	PTDA 2,5/13-5,0
Range of articles	PTDA 2,5/
Pitch	5 mm
Number of positions	13
Connection method	Push-in spring connection
Mounting type	Wave soldering
Pin layout	Linear double pinning

5.1 Connection capacity

Conductor cross section, solid	0.2 mm ² to 2.5 mm ²
Conductor cross section, flexible	0.2 mm ² to 2.5 mm ²
Conductor cross section AWG/kcmil	24 to 14
2 conductors with same cross section, solid	0.2 mm ² to 2.5 mm ²
2 conductors with same cross section, stranded	0.2 mm ² to 2.5 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve	0.5 mm ² to 2.5 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve	0.5 mm ² to 1 mm ²
2 conductors with same cross section, stranded, with ferrule without plastic sleeve	0.5 mm ² to 2.5 mm ²
2 conductors with same cross section, stranded, with TWIN ferrules with plastic sleeve	0.5 mm ² to 1 mm ²
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
Terminal point surface	Sn 4 µm ... 8 µm
Soldering area surface	Sn 4 µm ... 8 µm
Surface characteristics	Tin-plated
Insulating material data	
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**

1725445 PTDA 2,5/13-5,0

Length	16 mm
Width	65 mm
Height (without solder pin)	16 mm
Total height	19.5 mm
Solder pin [P]	3.5 mm
Dimension a	60 mm

6.2 Dimensions for PCB design

Hole diameter	1.3 mm
Pin dimensions	1 x 0,4 mm
Pin spacing	5 mm

1725445 PTDA 2,5/13-5,0**7 Series drawing****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)

1725445 PTDA 2,5/13-5,0**10 Mechanical tests****10.1 Connection test**

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

10.2 Electrical performance test

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

10.3 Check for damage to conductor or loosening

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

10.4 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 / stranded / > 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 / stranded / > 50 N

10.5 Bending test

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

1725445 PTDA 2,5/13-5,0**11 Electrical tests****11.1 Electrical data**

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

11.2 Air clearances and creepage distances

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
Note on connection cross section			
Note			

11.3 Temperature rise test

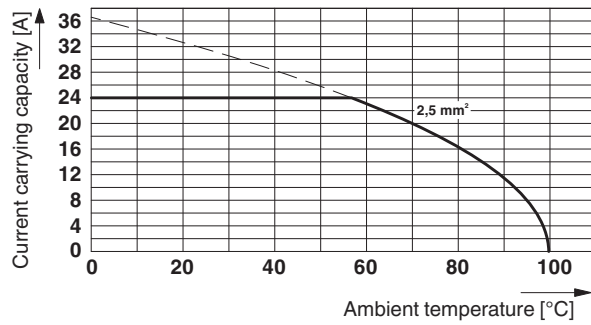
Specification	IEC 60998-2-1:2002-12
Result	Test passed
Requirement temperature-rise test	Increase in temperature ≤ 45 K
Conductor cross section/test current/temperature rise	2.5 mm ² / 24 A / 36 K
Specification	Following IEC 60512-5-2:2002-02
Result	Test passed
Conductor cross section/test current/temperature rise	2.5 mm ² / 24 A / 43.7 K

1725445 PTDA 2,5/13-5,0

12 Current carrying capacity/derating curves

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

Derating diagram for 5 positions; reduction factor=0.8



1725445 PTDA 2,5/13-5,0**13 Environmental and durability tests****13.1 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 %

13.2 Insulation resistance

Specification	IEC 60998-1:2002-12
Result	Test passed
Insulation resistance, neighboring positions	10 GΩ

13.3 Test of the power frequency electric strength

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

13.4 Glow-wire test

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

13.5 Mechanical strength/tumbling barrel

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


13.6 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	5 g (60.1 - 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis

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

1725445 PTDA 2,5/13-5,0


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
Specification	IEC 61032:1997-12
Note	unenclosed basic insulation - protected against finger contact with IP20 test finger in acc. with IEC 60529 when connected, above the PCB

1725445 PTDA 2,5/13-5,0**14 Type approval and special tests****15 Approvals****UL Recognized** 

Use group	B	D		
mm ² /AWG/kcmil	24-14	24-14		
Voltage	300 V	300 V		
Current	15 A	10 A		

VDE Gutachten mit Fertigungsüberwachung 


mm ² /AWG/kcmil	0.2-2.5			
Voltage	250 V			
Current	24 A			

cUL Recognized 


Use group	B	D		
mm ² /AWG/kcmil	24-14	24-14		
Voltage	300 V	300 V		
Current	15 A	10 A		

CCA

mm ² /AWG/kcmil	0.2-2.5			
Voltage	250 V			
Current	24 A			

IECEE CB Scheme 

mm ² /AWG/kcmil	0.2-2.5			
Voltage	250 V			
Current	24 A			

EAC **cULus Recognized** 

1725445 PTDA 2,5/13-5,0**16 Commercial Data**

Order No.	1725445
Type	PTDA 2,5/13-5,0
Pieces per package	50
Net weight	20.5 g
GTIN	4046356129367
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1

17 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