

Data sheet

2017-11-20
Product version 02
Document revision 0

Order No.: 1990096

Type: PTSA 0,5/11-2,5-Z

PCB terminal block, Push-in spring connection



The figure shows a 10-position version of the product

1 Main features



- | | | | |
|---------------------------|---------------------------|------------------------|---------------------|
| • No. of pos. | 11 | • Nominal current | 2 A |
| • Conductor cross section | 0.5 mm ² | • Nominal voltage | 250 V |
| • Color | green | • Connection direction | 45 ° |
| • Pitch | 2.5 mm | • Type of packaging | packed in cardboard |
| • Connection method | Push-in spring connection | | |

2 Your advantages

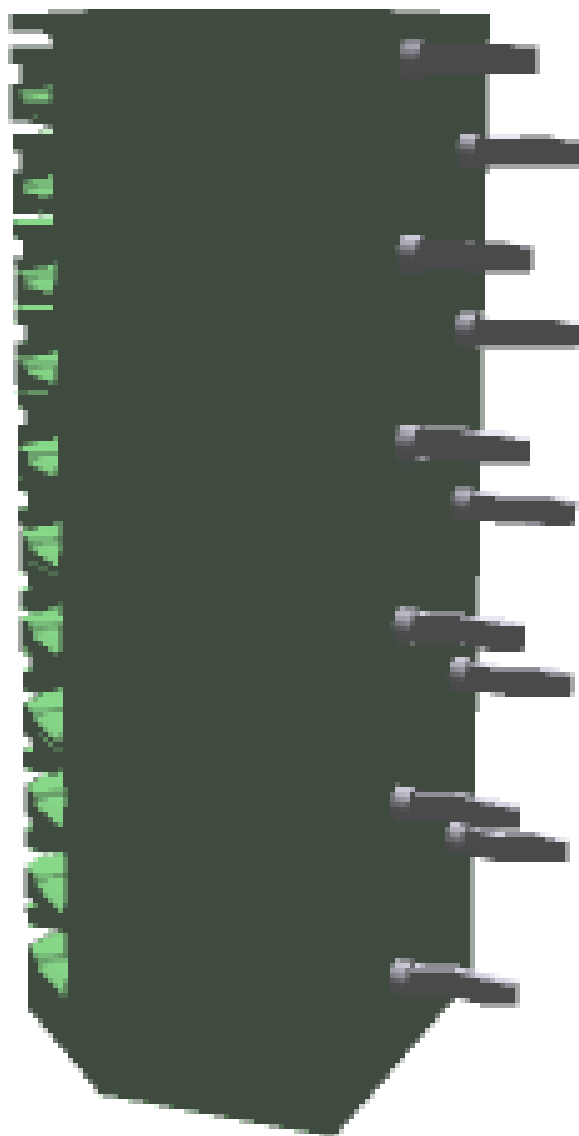


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It can be downloaded at: phoenixcontact.net/product/1990096

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



1990096 PTSA 0,5/11-2,5-Z**5 item properties**

Order No.	1990096
Type	PTSA 0,5/11-2,5-Z
Range of articles	PTSA 0,5
Pitch	2.5 mm
Number of positions	11
Connection method	Push-in spring connection
Mounting type	Wave soldering
Pin layout	ZF - Zig-zag front pinning M
Product note	Offset soldering legs, two-rowed

5.1 Connection capacity

Conductor cross section, solid	0.14 mm ² to 0.5 mm ²
Conductor cross section, flexible	0.2 mm ² to 0.5 mm ²
Conductor cross section AWG/kcmil	24 to 20
Stripping length	9 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	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)	

6 Dimensions**6.1 Dimensions for the product**

Length	12 mm
Width	29 mm
Height (without solder pin)	13.1 mm
Total height	16.7 mm
Solder pin [P]	3.6 mm
Dimension a	25 mm

6.2 Dimensions for PCB design

Hole diameter	1 mm
Pin dimensions	0,4 x 0,75 mm
Pin spacing	2.5 mm

1990096 PTSA 0,5/11-2,5-Z**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 ... 55 °C
Ambient temperature (operation)	-40 °C ... 85 °C

1990096 PTSA 0,5/11-2,5-Z**10 Mechanical tests****10.1 Connection test**

Specification	IEC 60998-2-2:1991-10
Result	Test passed

10.2 Electrical performance test

Specification	IEC 60998-2-2:1991-10
Result	Test passed

10.3 Check for damage to conductor or loosening

Specification	IEC 60998-2-2:1991-10
Result	Test passed

10.4 Pull-out test

Specification	IEC 60998-2-2:1991-10
Result	Test passed
Conductor cross section/conductor type/tractive force actual value	0.14 mm ² / solid / > 7 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	0.5 mm ² / solid / > 30 N
Conductor cross section/conductor type/tractive force actual value	0.5 mm ² / stranded / > 30 N

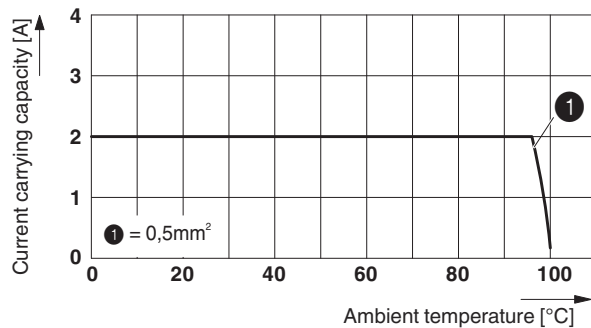
1990096 PTSA 0,5/11-2,5-Z**11 Electrical tests****11.1 Electrical data**

Rated current / conductor cross section	2 A / 0.5 mm ²
Rated insulation voltage (III/2)	250 V
Rated surge voltage (III/2)	2.5 kV
Contact resistance	2.6 mΩ
Degree of pollution	2

11.2 Temperature rise test

Specification	IEC 60998-2-1:1990-04
Result	Test passed
Requirement temperature-rise test	Increase in temperature ≤ 45 K
Conductor cross section/test current/temperature rise	0.5 mm ² / 2 A / 3 K

Specification	Following IEC 60512-5-2:2002-02
Result	Test passed
Conductor cross section/test current/temperature rise	0.5 mm ² / 2 A / 5 K

Derating diagram for 5 pins;reduction factor=1

1990096 PTSA 0,5/11-2,5-Z**12 Environmental and durability tests****12.1 Resistance to ageing, humidity and penetration of solids**

Specification	IEC 60998-2-2:1991-10
Result	Test passed
Dry heat	168 h/100°C
Damp heat	48 h/30 °C/92 %

12.2 Insulation resistance

Specification	IEC 60998-2-2:1991-10
Result	Test passed
Insulation resistance, neighboring positions	10 ⁹ Ω

12.3 Test of the power frequency electric strength

Specification	IEC 60998-2-2:1991-10
Result	Test passed
Test voltage between neighboring positions	2.5 kV

12.4 Glow-wire test

Specification	IEC 60998-2-2:1991-10
Result	Test passed
Temperature	850 °C
Time of exposure	5 s

12.5 Mechanical strength/tumbling barrel

Specification	IEC 60998-1:1990-04
Result	Test passed
Height of fall	50 cm
Number of drop cycles	50


12.6 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

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

1990096 PTSA 0,5/11-2,5-Z

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 0.5 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

1990096 PTSA 0,5/11-2,5-Z**13 Type approval and special tests****14 Approvals****UL Recognized** 

Use group	B	D		
mm ² /AWG/kcmil	26-20	26-20		
Voltage	300 V	300 V		
Current	2 A	2 A		

VDE Gutachten mit Fertigungsüberwachung 


mm ² /AWG/kcmil	0.5			
Voltage	250 V			
Current	2 A			

cUL Recognized 

Use group	B	D		
mm ² /AWG/kcmil	26-20	26-20		
Voltage	300 V	300 V		
Current	2 A	2 A		

CCA

mm ² /AWG/kcmil	0.5			
Voltage				
Current	2 A			

EAC **cULus Recognized** 

1990096 PTSA 0,5/11-2,5-Z**15 Commercial Data**

Order No.	1990096
Type	PTSA 0,5/11-2,5-Z
Pieces per package	50
Net weight	4.192 g
GTIN	4017918973667
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1

16 Accessories

Description	Order No.	Type
Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.4 x 2.5 x 75 mm, 2-component grip, with non-slip grip	1204504	SZF 0-0,4X2,5