

Data sheet

Order No.: 1719341

Type: SPT 5/ 5-V-7,5-ZB

PCB terminal block, Push-in spring connection



1 Main features



- | | | | |
|---------------------------|---------------------------|------------------------|---------------------|
| • No. of pos. | 5 | • Nominal current | 41 A |
| • Conductor cross section | 6 mm ² | • Nominal voltage | 1000 V |
| • Color | green | • Connection direction | 90 ° |
| • Pitch | 7.5 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
- ✓ Clamping space opened by means of fixed screwdriver enables convenient conductor connection
- ✓ Unrestricted 600-V-UL approval thanks to compact zig-zag pinning
- ✓ Vertical connection enables multi-row arrangement on the PCB



Make sure you always use the latest documentation.

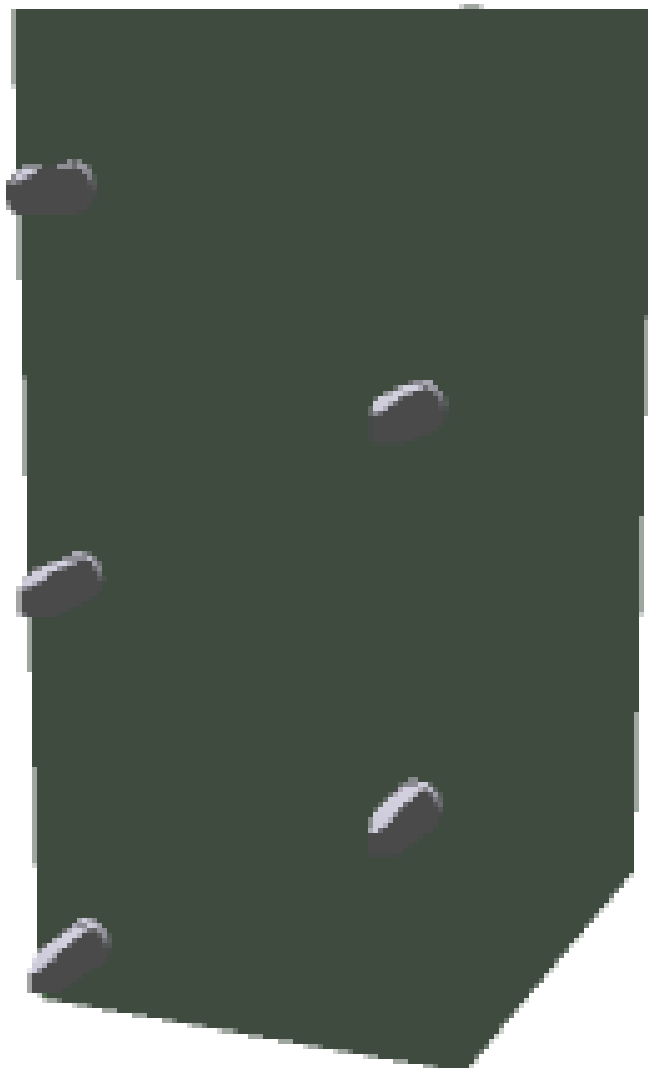
It can be downloaded at: phoenixcontact.net/product/1719341

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
10	Mechanical tests.....	8
	10.1 Connection test.....	8
	10.2 Electrical performance test.....	8
	10.3 Check for damage to conductor or loosening	8
	10.4 Pull-out test	8
	10.5 Bending test	8
11	Electrical tests	9
	11.1 Electrical data	9
	11.2 Air clearances and creepage distances	9
	11.3 Temperature rise test.....	9
12	Current carrying capacity/derating curves	10
13	Environmental and durability tests	11
	13.1 Resistance to ageing, humidity and penetration of solids	11
	13.2 Insulation resistance.....	11
	13.3 Test of the power frequency electric strength	11
	13.4 Glow-wire test.....	11
	13.5 Mechanical strength/tumbling barrel	11
	13.6 Vibration test	11
	13.7 Testing in a saturated atmosphere in the presence of sulfur dioxide	11
14	Type approval and special tests	13
15	Approvals	13
16	Commercial Data.....	14
17	Accessories.....	14

1719341 SPT 5/ 5-V-7,5-ZB

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



1719341 SPT 5/ 5-V-7,5-ZB**5 item properties**

Order No.	1719341
Type	SPT 5/ 5-V-7,5-ZB
Range of articles	SPT 5/..-V
Pitch	7.5 mm
Number of positions	5
Connection method	Push-in spring connection
Mounting type	Wave soldering
Pin layout	ZB - Zig-zag back pinning W

5.1 Connection capacity

Conductor cross section, solid	0.2 mm ² to 10 mm ²
Conductor cross section, flexible	0.2 mm ² to 6 mm ²
Conductor cross section AWG/kcmil	24 to 8
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² to 6 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve	0.25 mm ² to 4 mm ²
2 conductors with same cross section, stranded, with TWIN ferrules with plastic sleeve	0.25 mm ² to 1.5 mm ²
Stripping length	15 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	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	18.5 mm
Width	39.3 mm
Height (without solder pin)	14.4 mm
Total height	19 mm
Solder pin [P]	4.6 mm
Dimension a	30 mm

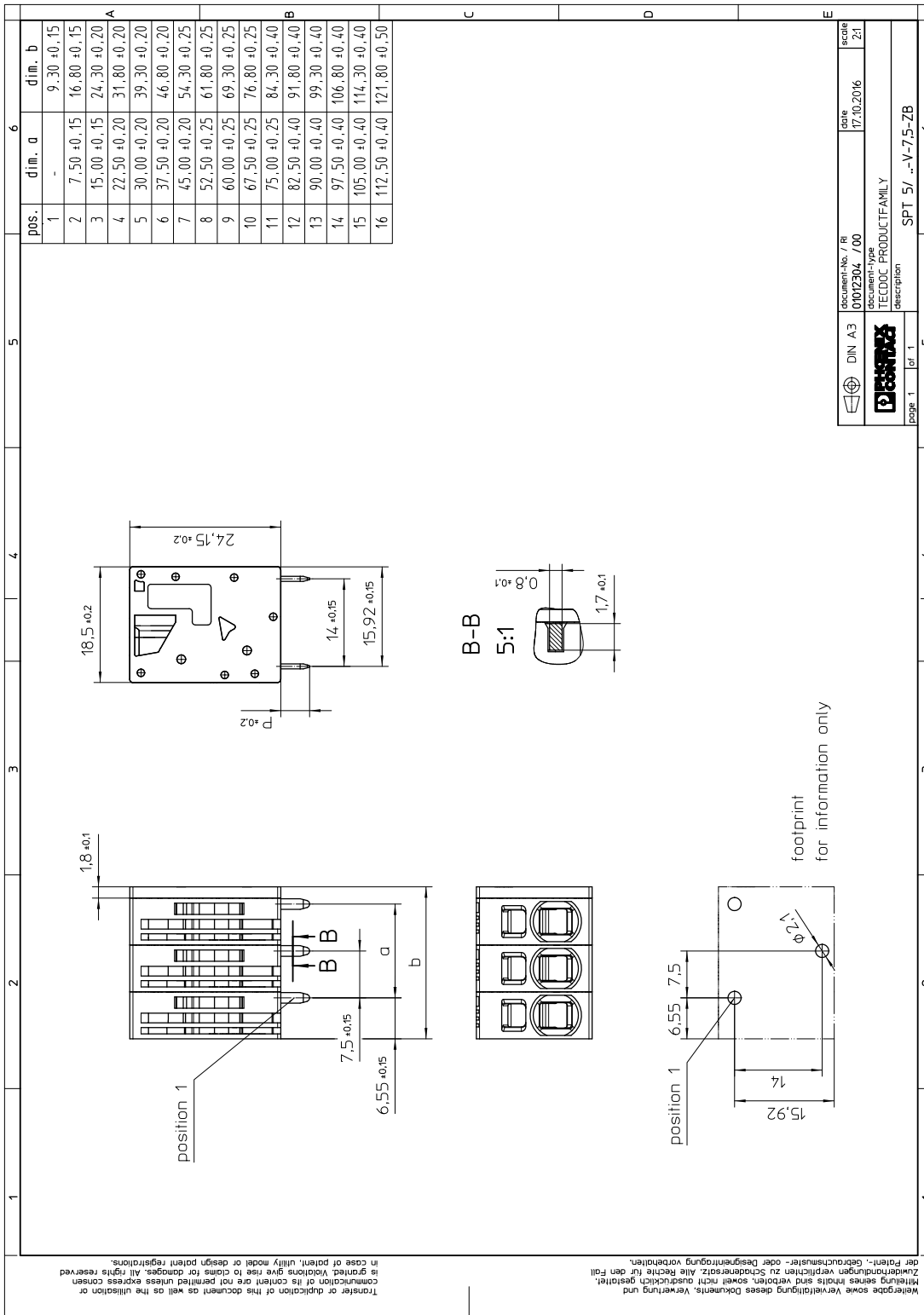
1719341 SPT 5/ 5-V-7,5-ZB

6.2 Dimensions for PCB design

Hole diameter	2.1 mm
Pin dimensions	1,7 x 0,8 mm
Pin spacing	14 mm

1719341 SPT 5/ 5-V-7,5-ZB

7 Series drawing



1719341 SPT 5/ 5-V-7,5-ZB**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 (Depending on the current carrying capacity/derating curve)

1719341 SPT 5/ 5-V-7,5-ZB**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	10 mm ² / solid / > 90 N
Conductor cross section/conductor type/tractive force actual value	6 mm ² / stranded / > 80 N

10.5 Bending test

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

1719341 SPT 5/ 5-V-7,5-ZB**11 Electrical tests****11.1 Electrical data**

Rated current / conductor cross section	41 A / 6 mm ²
Rated insulation voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
Contact resistance	0.4 mΩ
Degree of pollution	2

11.2 Air clearances and creepage distances

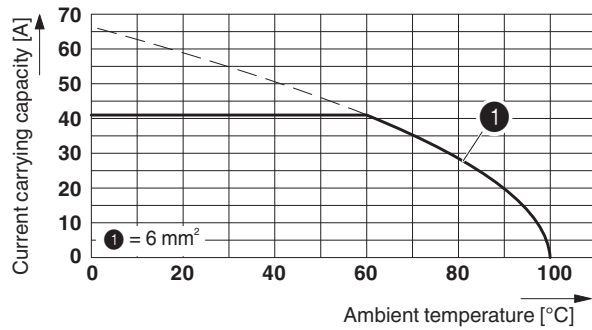
Specification	IEC 60664-1:2007-04		
Mains type	unearthed mains		
Insulating material group	I		
Comparative tracking index (IEC 60112:2003-01)	CTI 600		
Rated insulation voltage	800 V	1000 V	1000 V
Rated surge voltage	8 kV	8 kV	6 kV
Degree of pollution	3	2	2
Overvoltage category	III	III	II
Minimum clearance case A (inhomogeneous field)	8 mm	8 mm	5.5 mm
Minimum value of the creepage path requirement in acc. with table	10 mm	8 mm	5.5 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	10 mm ² / 57 A / 44 K
Specification	Following IEC 60512-5-2:2002-02
Result	Test passed
Conductor cross section/test current/temperature rise	6 mm ² / 41 A / 40 K

1719341 SPT 5/ 5-V-7,5-ZB**12 Current carrying capacity/derating curves**

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

Type: SPT 5/...-V-7,5-ZB**Test following DIN EN 60512-5-2:2003-01****Reduction factor = 1****No. of positions: 5**

1719341 SPT 5/ 5-V-7,5-ZB**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	7.5 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

1719341 SPT 5/ 5-V-7,5-ZB


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 6 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

1719341 SPT 5/ 5-V-7,5-ZB**14 Type approval and special tests****15 Approvals****UL Recognized** 

Use group	B	C		
mm ² /AWG/kcmil	24-8	24-8		
Voltage	600 V	600 V		
Current	36 A	36 A		

SEV 


mm ² /AWG/kcmil	6			
Voltage	1000 V			
Current	41 A			

cUL Recognized 


Use group	B	C		
mm ² /AWG/kcmil	24-8	24-8		
Voltage	600 V	600 V		
Current	36 A	36 A		

CCA

mm ² /AWG/kcmil	6			
Voltage	1000 V			
Current	41 A			

IECEE CB Scheme 

mm ² /AWG/kcmil	6			
Voltage	1000 V			
Current	41 A			

EAC **cULus Recognized** 

1719341 SPT 5/ 5-V-7,5-ZB**16 Commercial Data**

Order No.	1719341
Type	SPT 5/ 5-V-7,5-ZB
Pieces per package	50
Net weight	18.69 g
GTIN	4046356141444
	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
	1701535	RZ-SPT 5-4 V
Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm ² ... 6.0 mm ² , lateral entry, trapezoidal crimp	1212034	CRIMPFOX 6
	0804455	SK 7,5/3,8:FORTL.ZAHLEN
	0825127	SK 3,8 REEL P7,5 WH CUS