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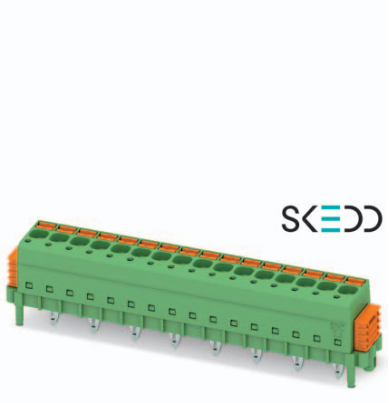
2016-04-25
Product version 01
Document revision 0

Data sheet

Order No.: 1864176

Type: SDC 2,5/16-PV-5,0-ZB

Plug component, Push-in spring connection



1 Main features

- Number of positions 16
- Conductor cross section 2.5 mm²
- Color green
- Pitch 5.00 mm
- Connection method Push-in spring connection
- Nominal current 12 A
- Nominal voltage 200 V
- Connection direction 0 °
- Type of packaging packed in cardboard

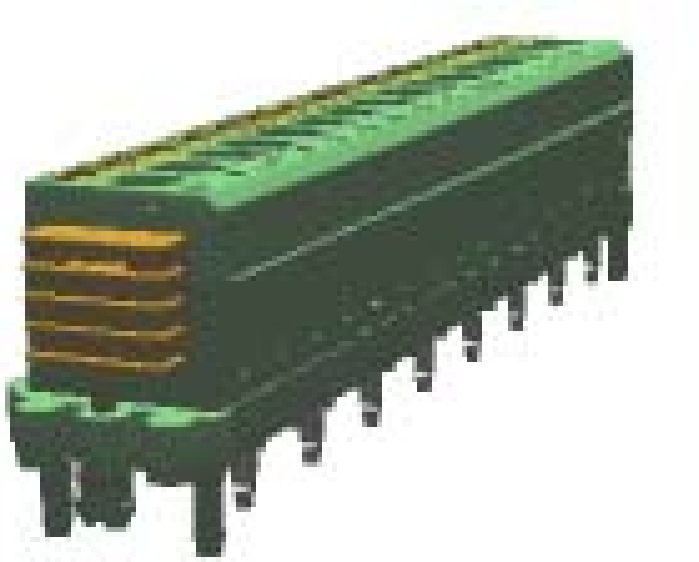
2 Your advantages

- SKEDD direct plug-in technology enables flexible positioning on the PCB
- Reduced component and process costs: simple insertion by hand and vibration-resistant connection
- Time saving push-in connection, tools not required
- Intuitive use through colour coded actuation lever
- Quick and convenient testing using integrated test option

Make sure you always use the latest documentation.
It can be downloaded at: phoenixcontact.net/product/1864176

3 Table of contents

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



5 Item properties

Order No.	1864176
Type	SDC 2,5/16-PV-5,0-ZB
Range of articles	SDC 2,5/..-PV
Pitch	5.00 mm
Number of positions	16
Connection method	Push-in spring connection
Mounting type	SKEDD - Direct plug-in technology
Pin layout	ZB - Zig-zag back pinning W
Note	WEEE/RoHS-compliant, whisker-free acc. to IEC 60068-2-82/JEDEC JESD 201

5.1 Connection capacity

Conductor cross section, solid	0.2 mm² to 2.5 mm²
Conductor cross section, flexible	0.2 mm² to 2.5 mm²
Conductor cross section AWG/kcmil	24 to 12
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² to 2.5 mm² Ferrule see above
Conductor cross section flexible, with ferrule with plastic sleeve	0.25 mm² to 2.5 mm² Ferrule see above
Stripping length	10 mm

5.2 Material data

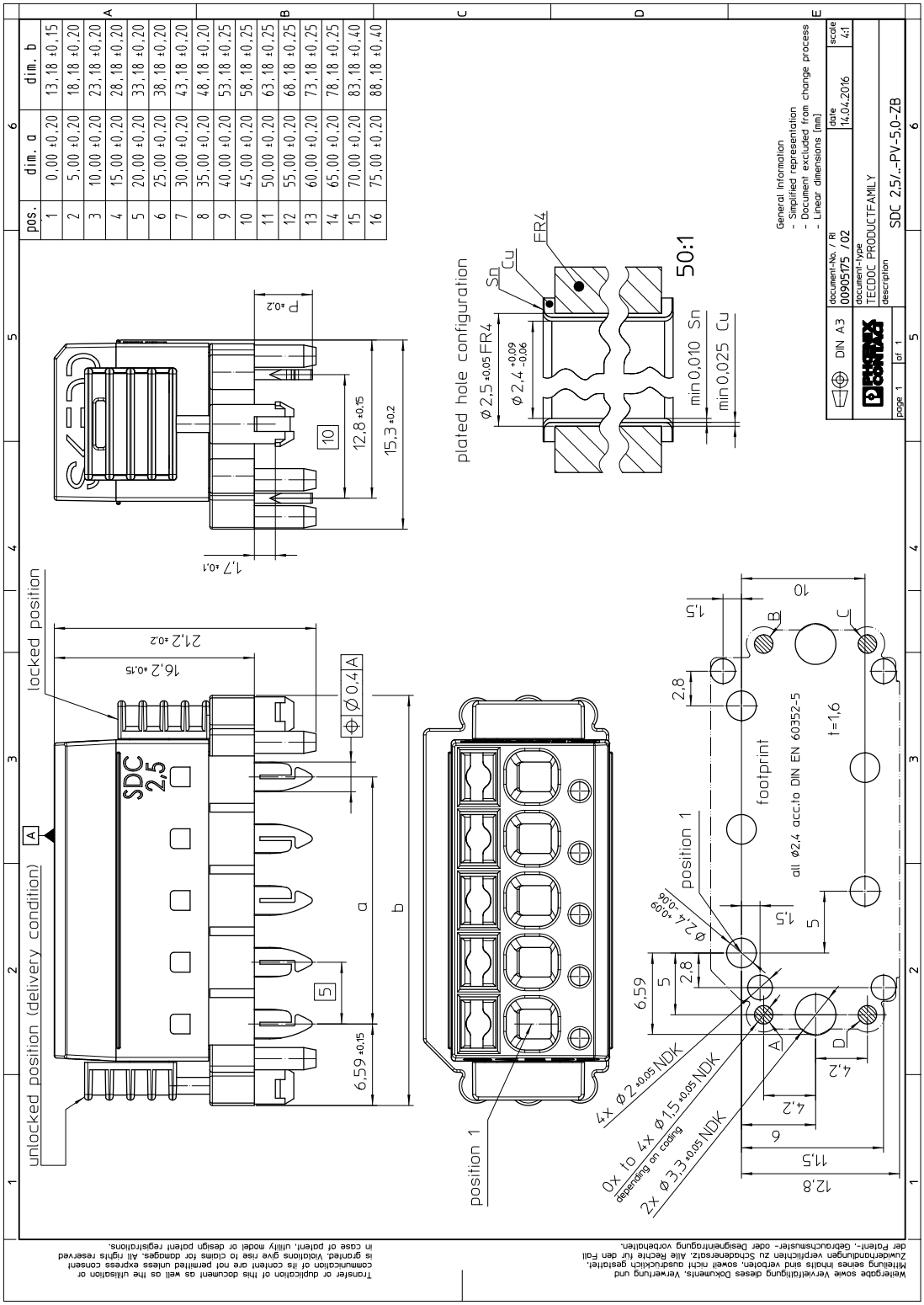
Material of metal parts		
Contact material	Cu alloy	
Surface contact area	Ni 1.5 µm ... 4 µm , Sn 4 µm ... 8 µm	
Soldering area surface		
Surface characteristics	Tin-plated	

Insulating material data	Housing	Actuation element
Insulating material	PA	PBT
CTI according to IEC 60112	600	275
Flammability rating according to UL 94	V0	V0
Color	green (6021)	orange (2003)

5.3 Dimensions

Dimension a	75 mm
Length	15.3 mm
Width	88.18 mm
Constructional height	21.2 mm
Height	21.2 mm
Length of the solder pin [P]	4.7 mm
Pin spacing	10.00 mm
Hole diameter	2.4 mm

6 Series drawing



7 Packaging information

Type of packaging	packed in cardboard

8 Application

8.1 Temperature limit values

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

9 Mechanical tests

Mechanical test group A	
Specification	IEC 61984:2008-10
Visual test	Test passed
Specification	IEC 60512-1-1:2002-02
Dimensional test	Test passed
Specification	IEC 60512-1-2:2002-02
Resistance of marking	Test passed
Specification	IEC 60068-2-70:1995-12
Insertion and withdrawal force	Test passed
Specification	IEC 60512-13-2:2006-02
No. of cycles	25
Insertion strength per pos. approx.	8 N ( )
Withdraw strength per pos. approx.	6 N ( )
Polarization and coding	Test passed
Specification	IEC 60512-13-5:2006-02
Test force	20 N
Contact retention in insert	Test passed
Specification	IEC 60512-15-1:2008-05
Test force per pos.	20 N

9.1 Air and creepage distances

Component			
Specification	IEC 60664-1:2007-04		
Mains type	unearthed mains		
Insulating material group			
Comparative tracking index (IEC 60112:2003-01)	CTI 275		
Rated insulation voltage	200 V	320 V	320 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	3.2 mm	3.2 mm

10 Electrical tests

10.1 Electrical data

Rated current/rated insulation voltage/rated surge voltage/degree of pollution	12 A			2

10.2 Current carrying capacity/derating curves

Specification	
Note	Representation based on IEC 60512-5-2:2002-02
Reduction factor	
Number of positions	See diagram
Conductor cross section	
Note	

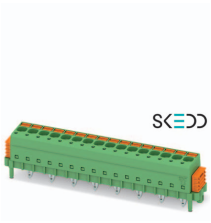
11 Type approval and special tests

12 Approvals

13 Commercial data

Order No.	1864176
Type	SDC 2,5/16-PV-5,0-ZB
GTIN	4055626210575
Pieces per package	50
Net weight (SAP)	2.22 g
Customs tariff number	
Country of origin	

13.1 Combination tests



SDC 2,5/..-PV

Specification	IEC 61984			
Mechanical tests				
Insertion/withdrawal force per position	8 N / 6 N			
	Test passed			
Contact holder in insert Requirements > 24 N	Test passed			
	1.1 mΩ			
Insertion/withdrawal cycles	25			
	Test passed			
	Test passed			
Rated voltage (III/2)	320 V			
	16			
	2.5 mm²			
Test current				
	Test passed			
	-40 °C/2 h			
	100 °C/168 h			
	0.2 dm³ SO_2 on 300 dm³/ 40 °C/1 cycle			
	Test passed			
	Test passed			
	Test passed			
Environmental and durability tests				
Result, degree of protection, IP code	Finger safety (IP20 test finger) in acc. with IEC 60529:1989-11 + AMD 1:1999-11 + AMD 2:2013-08			