

Order No.: 1996032

Type: SPC 5/ 4-ST-7,62

Plug component, Push-in spring connection



The figure shows a 5-pos. version of the product

1 Main features



- | | | | |
|---------------------------|---------------------------|------------------------|---------------------|
| • No. of pos. | 4 | • Nominal current | 41 A |
| • Conductor cross section | 6 mm ² | • Nominal voltage | 1000 V |
| • Color | green | • Connection direction | 0° |
| • Pitch | 7.62 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
- ✓ Integrated double steel spring provides additional safety in the event of temperature and power fluctuations
- ✓ Optimized for tight installation situations: operation and conductor connection from one direction
- ✓ 600 V UL approval in the smallest of dimensions

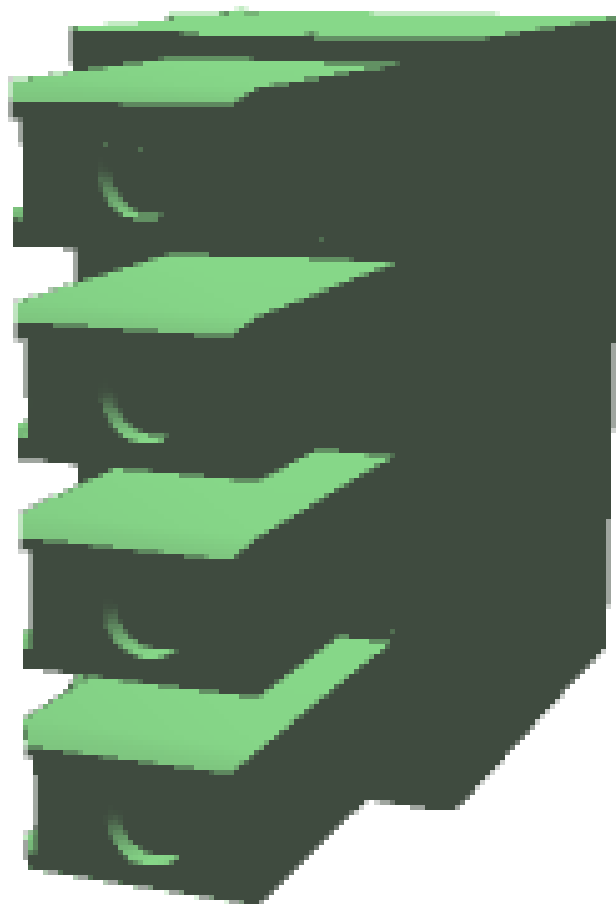


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It can be downloaded at: phoenixcontact.net/product/1996032

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



1996032 SPC 5/ 4-ST-7,62**5 item properties**

Order No.	1996032
Type	SPC 5/ 4-ST-7,62
Type of contact	Female connector
Range of articles	SPC 5/...-ST
Pitch	7.62 mm
Number of positions	4
Connection method	Push-in spring connection
Locking	without

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
Cylindrical gauge a x b / diameter	4.3 mm x 4.0 mm / 4.0 mm
Stripping length	15 mm

5.2 Specifications for ferrules

Ferrules without insulating collar, according to DIN 46228-1	Cross section: 0.5 mm ² ; Length: 10 mm ... 15 mm Cross section: 0.75 mm ² ; Length: 10 mm ... 15 mm Cross section: 1 mm ² ; Length: 10 mm ... 15 mm Cross section: 1.5 mm ² ; Length: 10 mm ... 15 mm Cross section: 2.5 mm ² ; Length: 12 mm ... 15 mm Cross section: 4 mm ² ; Length: 12 mm ... 15 mm
Ferrules with insulating collar, according to DIN 46228-4	Cross section: 0.5 mm ² ; Length: 10 mm ... 15 mm Cross section: 0.75 mm ² ; Length: 12 mm ... 15 mm Cross section: 1 mm ² ; Length: 12 mm ... 15 mm Cross section: 1.5 mm ² ; Length: 12 mm ... 15 mm Cross section: 2.5 mm ² ; Length: 12 mm ... 15 mm Cross section: 4 mm ² ; Length: 12 mm ... 15 mm

5.3 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	
Surface contact area	Sn 4 µm ... 8 µm	
Surface characteristics	hot-dip tin-plated	
Insulating material data	Housing	Actuation element
Insulating material	PA	
CTI according to IEC 60112	600	
Flammability rating according to UL 94	V0	
Color	green (6021)	orange (2003)

1996032 SPC 5/ 4-ST-7,62

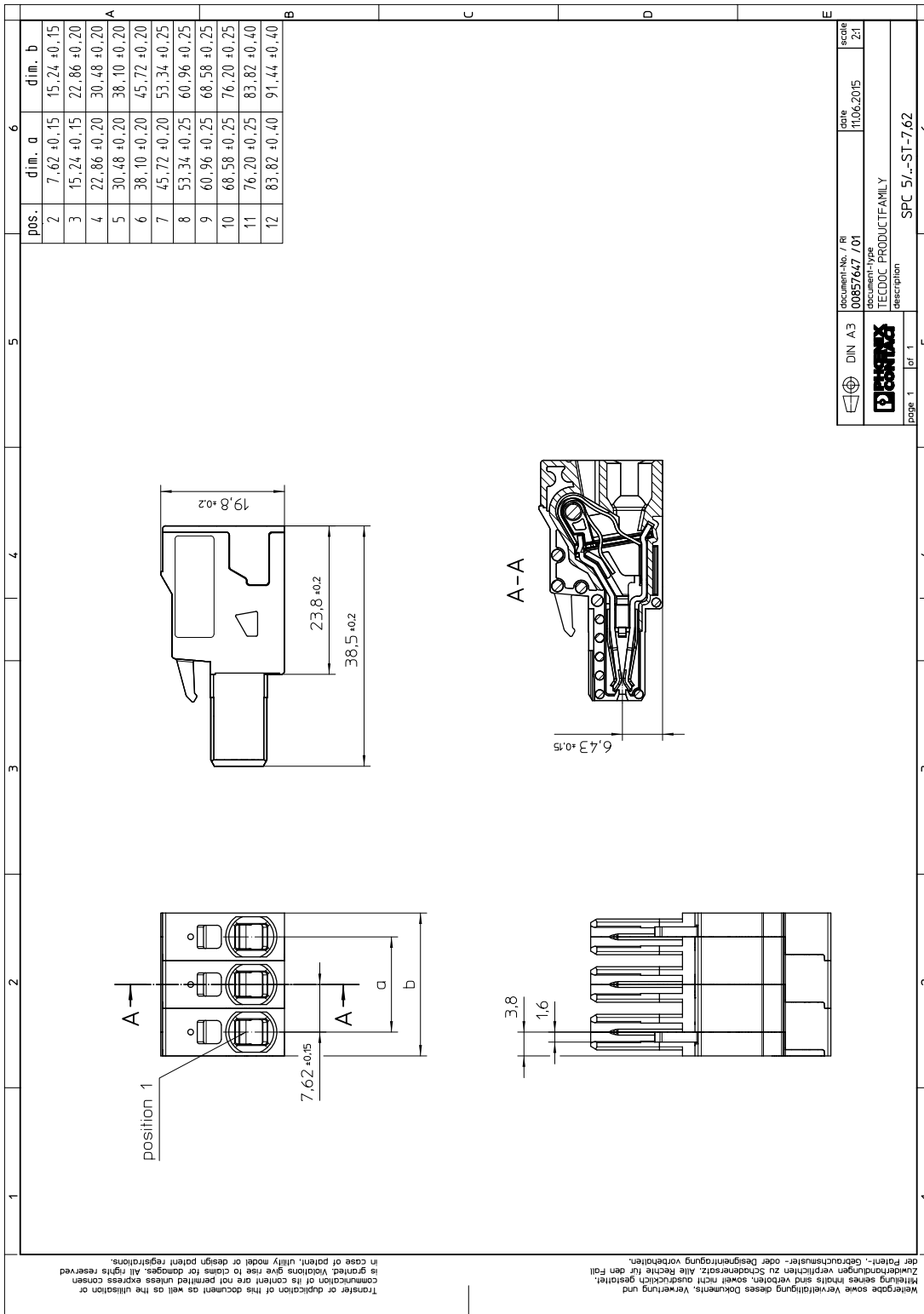
Insulating material data	Housing	Actuation element
Glow wire flammability index GWFI according to EN 60695-2-12	850	
Glow wire ignition temperature GWIT according to EN 60695-2-13	775	
Temperature for the ball pressure test according to EN 60695-10-2	125 °C	

6 Dimensions**6.1 Dimensions for the product**

Length	38.5 mm
Width	30.48 mm
Total height	19.8 mm
Dimension a	22.86 mm

1996032 SPC 5/ 4-ST-7,62

7 Series drawing



1996032 SPC 5/ 4-ST-7,62

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)

1996032 SPC 5/ 4-ST-7,62**10 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	50
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.	34 N

10.1 Termination and connection method

Specification	IEC 60999-1:1999-11
Conductor connection	Test passed
Repeated connection and disconnection	Test passed
Check for damage to conductor or loosening	Test passed

10.2 Pull-out test

Termination and connection method: pull-out test	
Specification	IEC 60999-1:1999-11
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

1996032 SPC 5/ 4-ST-7,62**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	0.8 mΩ
Degree of pollution	2

11.2 Air and creepage distances

Component	Plug component		
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	1000 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	12.5 mm	8 mm	5.5 mm

11.3 Electrical function

Specification	IEC 60999-1:1999-11
Result	Test passed
Voltage drop	Voltage drop (U) after the load ≤ 15 mV
Test current (minimum cross section)	5 A DC
Test current (maximum cross section)	32 A DC
Conductor cross section, flexible	0.2 mm ² to 6 mm ²
Conductor cross section, solid	0.2 mm ² to 10 mm ²

11.4 Temperature cycles

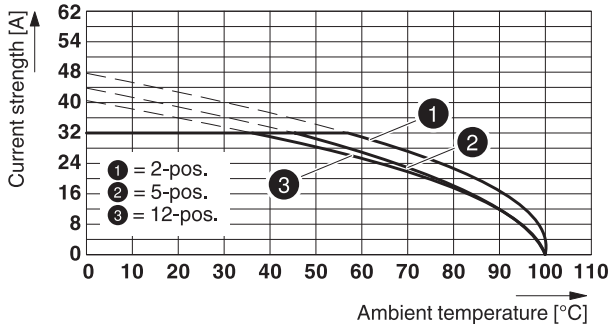
Specification	IEC 60999-1:1999-11
Result	Test passed
Voltage drop	Voltage drop (U) after the load ≤ 22.5 mV or 1.5 x U _{after 24 h} The small value is to be used.
Test current (minimum cross section)	5 A DC
Test current (maximum cross section)	32 A DC
Temperature cycles	192
Conductor cross section, flexible	0.2 mm ² to 6 mm ²
Conductor cross section, solid	0.2 mm ² to 10 mm ²

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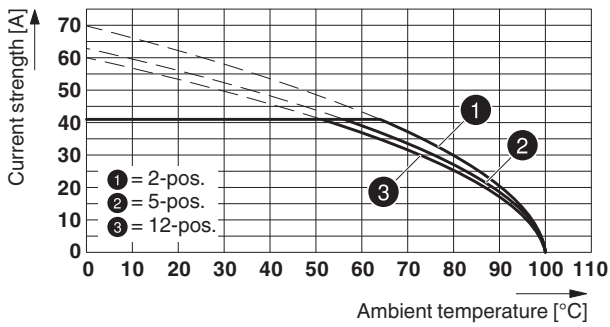
12 Current carrying capacity/derating curves

Specification	IEC 61984:2008-10
Note	Representation based on IEC 60512-5-2:2002-02
Reduction factor	0.8
Number of positions	See diagram
Conductor cross section	6 mm ²

Derating curve for: SPC 5/...-ST-7,62 with PC 5/...-G-7,62



Type: SPC 5/...-ST-7,62 with DFK-PC 5/...-ST-7,62



1996032 SPC 5/ 4-ST-7,62**13 Environmental and durability tests****13.1 Vibration test**

Specification	IEC 60068-2-6:2007-12
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

14 Classification for connectors

Specification	IEC 61984:2008-10
Main features	Connectors without switching capacity (COC)
Construction form	Fixed connectors
Strain relief elements	without strain relief
Connection method	Can be reconnected
Protection against electric shock	Not encapsulated - touch-proof when inserted
Protective conductor	without PE
Lock	no
Connection method	Screwless terminal points

15 Approvals

EAC 

cULus Recognized 

Use group	B	C		
mm ² /AWG/kcmil	24-8	24-8		
Voltage	600 V	600 V		
Current	35 A	35 A		

1996032 SPC 5/ 4-ST-7,62**16 Commercial Data**

Order No.	1996032
Type	SPC 5/ 4-ST-7,62
Pieces per package	50
Net weight	17.983 g
GTIN	4046356037778
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1

17 corresponding headers

Order No.	Type
1716302	DFK-PCV 5/ 4-G-7,62
1720482	PC 5/ 4-G-7,62
1720592	PCV 5/ 4-G-7,62
1720709	PC 5/ 4-GU-7,62
1727605	DFK-PC 5/ 4-G-7,62
1727825	DFK-PC 5/ 4-GU-7,62

18 Accessories

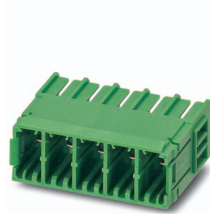
Description	Order No.	Type
Coding profile, for plugging into the coding ribs of the plug at a later date, insulating material, color: Red	1701967	CP-PC RD
Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip	1204517	SZF 1-0,6X3,5
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
	0803906	SK U/3,8 WH:UNBEDRUCKT
	0804549	SK 7,62/3,8:FORTL.ZAHLEN
	0825128	SK 3,8 REEL P7,62 WH CUS
	0805218	SK 3,8 WH:REEL
	1200264	AI 4 -15 GY

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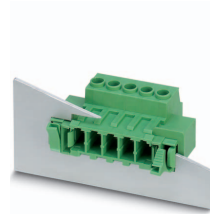
19 Combination tests



SPC 5/..-ST



PC 5/..-G

DFK-PC 4/..-G -
FS4,8

DFK-PC 5/..-ST

Specification	IEC 61984	IEC 61984	IEC 61984
Mechanical tests (A)			
Insertion/withdrawal force per position	approx. 8 N / 6 N	approx. 8 N / 6 N	approx. 6 N / 4 N
Polarization when inserted Requirement >20 N	Test passed	Test passed	Test passed
Contact holder in insert Requirements >20 N	Test passed	Test passed	
Durability tests (B)			
Contact resistance R ₁	0.8 mΩ		0.5 mΩ
Insertion/withdrawal cycles	50	25	50
Contact resistance R ₂	0.8 mΩ		0.6 mΩ
Rated impulse voltage at sea level Voltage waveform ≥ (1.2/50 μs)	7.3 kV		9.8 kV
Power-frequency withstand voltage Voltage waveform ≥ (50/60 Hz)	3.31 kV		4.26 kV
Insulation resistance Requirements > 5 MΩ	> 0.2 TΩ		> 14 TΩ
Thermal tests (C)			
Tested number of positions	12		12
Tested conductor cross section	6 mm ²		6 mm ²
Test current	32 A DC		32 A DC
Upper limiting temperature Requirements < 100°C	Test passed	Test passed	Test passed
Climatic tests (D)			
Test sequence 1: low temperature storage	-40 °C/2 h	-40 °C/2 h	-40 °C/2 h
Test sequence 2: heat storage	100 °C/168 h	100 °C/168 h	100 °C/168 h
Test sequence 3: noxious gas storage (ISO 6988)	0.2 dm ³ SO ₂ on 300 dm ³ / 40 °C/1 cycle	0.2 dm ³ SO ₂ on 300 dm ³ / 40 °C/1 cycle	0.2 dm ³ SO ₂ on 300 dm ³ / 40 °C/1 cycle
Rated impulse voltage at sea level Voltage waveform ≥ (1.2/50 μs)	7.3 kV		9.8 kV
Power-frequency withstand voltage Voltage waveform ≥ (50/60 Hz)	3.31 kV		4.26 kV
Environmental and endurance tests (E)			
Specification	IEC 61984:2008-10	IEC 61984:2008-10	IEC 61984:2008-10
Degree of protection	Finger safety with IP20 test finger	Finger safety with IP20 test finger	Finger safety with IP20 test finger