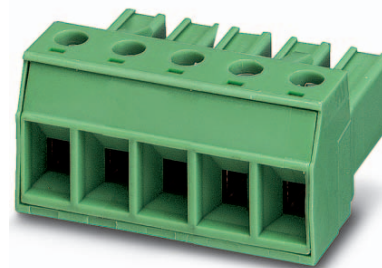


Data sheet

Order No.: 1804959

Type: PC 4/ 7-ST-7,62

Plug component, Screw connection with tension sleeve



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

1 Main features



- | | | | |
|---------------------------|--------------------------------------|------------------------|---------------------|
| • No. of pos. | 7 | • Nominal current | 20 A |
| • Conductor cross section | 4 mm ² | • Nominal voltage | 630 V |
| • Color | green | • Connection direction | 0 ° |
| • Pitch | 7.62 mm | • Type of packaging | packed in cardboard |
| • Connection method | Screw connection with tension sleeve | | |

2 Your advantages

- ✓ Well-known connection principle allows worldwide use
- ✓ Low temperature rise, thanks to maximum contact force
- ✓ Allows connection of two conductors
- ✓ Integrated double steel spring provides additional safety in the event of temperature and power fluctuations



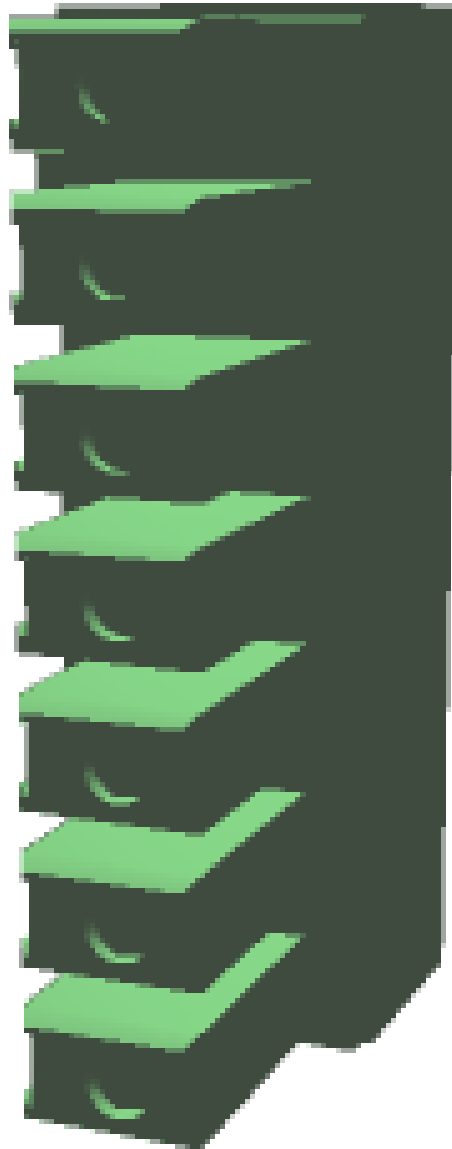
Make sure you always use the latest documentation.

It can be downloaded at: phoenixcontact.net/product/1804959

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
7	Series drawing.....	6
8	Packaging information	6
9	Application.....	6
	9.1 Temperature limit values	6
10	Mechanical tests.....	7
	10.1 Termination and connection method.....	7
	10.2 Pull-out test	7
11	Electrical tests	8
	11.1 Electrical data	8
	11.2 Air and creepage distances	8
12	Current carrying capacity/derating curves	9
13	Environmental and durability tests	10
	13.1 Vibration test	10
14	Classification for connectors.....	10
15	Approvals	10
16	Commercial Data.....	12
17	corresponding headers.....	12
18	Accessories.....	12
19	Combination tests.....	13

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



1804959 PC 4/ 7-ST-7,62**5 item properties**

Order No.	1804959
Type	PC 4/ 7-ST-7,62
Type of contact	Female connector
Range of articles	PC 4/...-ST
Pitch	7.62 mm
Number of positions	7
Connection method	Screw connection with tension sleeve
Screw thread	M3
Tightening torque	0.5 Nm ... 0.6 Nm
Locking	without

5.1 Connection capacity

Conductor cross section, solid	0.2 mm ² to 4 mm ²
Conductor cross section, flexible	0.2 mm ² to 4 mm ²
Conductor cross section AWG/kcmil	24 to 10
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 1.5 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² to 4 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 ferrule without plastic sleeve	0.25 mm ² to 1.5 mm ²
2 conductors with same cross section, stranded, with TWIN ferrules with plastic sleeve	0.5 mm ² to 2.5 mm ²
Cylindrical gauge a x b / diameter	3.6 mm x 3.1 mm / 3.0 mm
Stripping length	7 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
Surface contact area	Sn 4 µm ... 8 µm
Surface characteristics	hot-dip 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**

1804959 PC 4/ 7-ST-7,62

Length	30.7 mm
Width	53.32 mm
Total height	18.1 mm
Dimension a	45.72 mm

1804959 PC 4/ 7-ST-7,62

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)

1804959 PC 4/ 7-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.	5 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.	42 N

10.1 Termination and connection method

Specification	IEC 60999-1:1999-11
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	4 mm ² / solid / > 60 N
Conductor cross section/conductor type/tractive force actual value	4 mm ² / stranded / > 60 N

1804959 PC 4/ 7-ST-7,62**11 Electrical tests****11.1 Electrical data**

Rated current / conductor cross section	20 A / 4 mm ²
Rated insulation voltage (III/2)	630 V
Rated surge voltage (III/2)	6 kV
Contact resistance	0.5 mΩ
Degree of pollution	2

11.2 Air and creepage distances

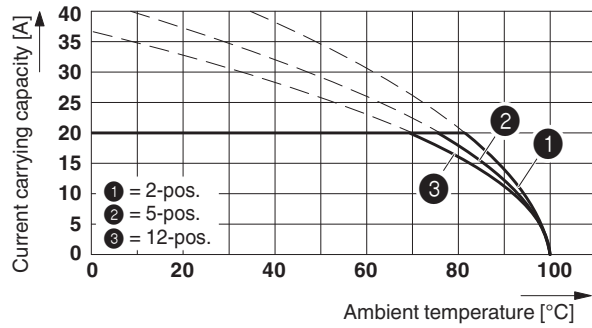
Component	Plug component		
Specification	IEC 60664-1:2007-04		
Mains type	unearthed mains		
Insulating material group	I		
Comparative tracking index (IEC 60112:2003-01)	CTI 600		
Rated insulation voltage	400 V	630 V	1000 V
Rated surge voltage	6 kV	6 kV	6 kV
Degree of pollution	3	2	2
Overvoltage category	III	III	II
Minimum clearance case A (inhomogeneous field)	5.5 mm	5.5 mm	5.5 mm
Minimum value of the creepage path requirement in acc. with table	5.5 mm	5.5 mm	5.5 mm

1804959 PC 4/ 7-ST-7,62

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	4 mm ²

Type: PC 4/...-ST-7,62 with PC 4/...-G-7,62




1804959 PC 4/ 7-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 - back of hand safety when plugged in
Protective conductor	without PE
Lock	no
Connection method	Screw terminal points

15 Approvals

CSA 				
Use group	B	C		
mm ² /AWG/kcmil	28-10	28-10		
Voltage	300 V	300 V		
Current	20 A	20 A		

UL Recognized 				
Use group	B	C	D	
mm ² /AWG/kcmil	30-10	30-10	30-10	
Voltage	300 V	300 V	600 V	
Current	20 A	20 A	5 A	

cUL Recognized 				
Use group	B	C	D	
mm ² /AWG/kcmil	30-10	30-10	30-10	
Voltage	300 V	300 V	600 V	
Current	20 A	20 A	5 A	

BV 				

RS 				

1804959 PC 4/ 7-ST-7,62

EAC 

cULus Recognized 

1804959 PC 4/ 7-ST-7,62**16 Commercial Data**

Order No.	1804959
Type	PC 4/ 7-ST-7,62
Pieces per package	50
Net weight	28.287 g
GTIN	4017918046392
	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
1804739	PCV 4/ 7-G-7,62
1804849	PC 4/ 7-G-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
	0804549	SK 7,62/3,8:FORTL.ZAHLEN
Actuation tool, for ST terminal blocks, insulated, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip	1205053	SZS 0,6X3,5
	0805153	SK 7,62/3,8:SO

1804959 PC 4/ 7-ST-7,62

19 Combination tests



PC 4/..-ST



PC 4/..-G



PCV 4/..-G

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

Specification	IEC 61984	IEC 61984	IEC 61984
Mechanical tests (A)			
Insertion/withdrawal force per position	approx. 8 N / 5 N		
Polarization when inserted Requirement >20 N	Test passed		
Contact holder in insert Requirements >20 N	Test passed		
Durability tests (B)			
Contact resistance R ₁	0.5 mΩ		
Insertion/withdrawal cycles	50		
Contact resistance R ₂	0.6 mΩ		
Rated impulse voltage at sea level Voltage waveform ≥ (1.2/50 μs)	7.3 kV		
Power-frequency withstand voltage Voltage waveform ≥ (50/60 Hz)	3.31 kV		
Insulation resistance Requirements > 5 MΩ	12 TΩ		
Thermal tests (C)			
Tested number of positions	12		
Tested conductor cross section	4 mm ²		
Test current	20 A		
Upper limiting temperature Requirements < 100°C	Test passed		
Climatic tests (D)			
Test sequence 1: low temperature storage	-40 °C/2 h		
Test sequence 2: heat storage	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		
Rated impulse voltage at sea level Voltage waveform ≥ (1.2/50 μs)	7.3 kV		
Power-frequency withstand voltage Voltage waveform ≥ (50/60 Hz)	3.31 kV		
Environmental and endurance tests (E)			
Specification	IEC 61984:2008-10		
Degree of protection	Back of hand safety with IP10 access probe		