

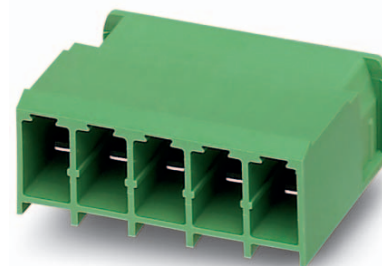
Data sheet

2017-10-24
Product version 04
Document revision 0

Order No.: 1804865

Type: PC 4/ 9-G-7,62

Header



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

1 Main features



- | | | | |
|-------------------------|-------------------|------------------------|---------------------|
| • No. of pos. | 9 | • Nominal current | 20 A |
| • Nominal cross section | 4 mm ² | • Nominal voltage | 630 V |
| • Color | green | • Connection direction | 0 ° |
| • Pitch | 7.62 mm | • Type of packaging | packed in cardboard |
| • Mounting type | Wave soldering | | |

2 Your advantages

- ✓ Well-known mounting principle allows worldwide use



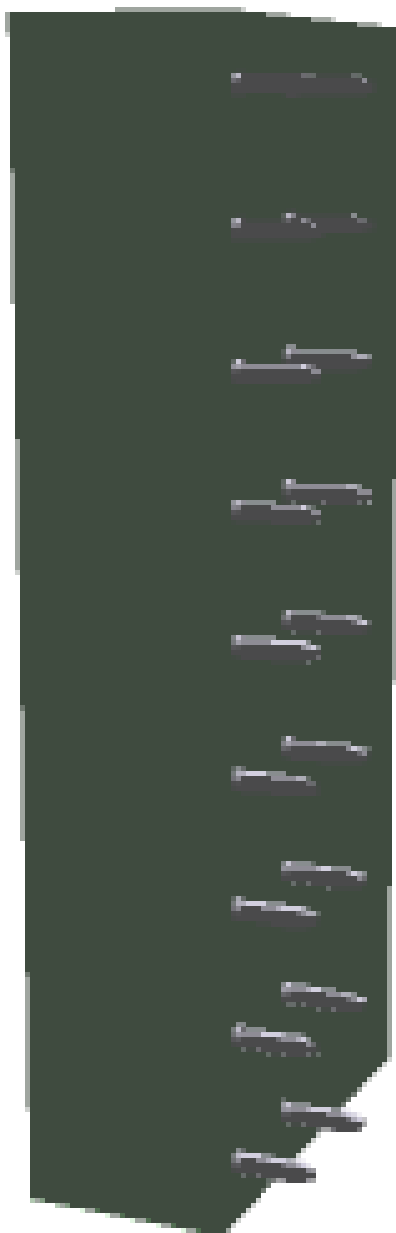
Make sure you always use the latest documentation.
It can be downloaded at: phoenixcontact.net/product/1804865

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1804865 PC 4/ 9-G-7,62

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



1804865 PC 4/ 9-G-7,62**5 item properties**

Order No.	1804865
Type	PC 4/ 9-G-7,62
Type of contact	Male connector
Range of articles	PC 4/...-G
Pitch	7.62 mm
Number of positions	9
Locking	without
Mounting type	Wave soldering
Pin layout	Linear pinning
Product note	Mounting flange: Accessory Order No. 1827570

5.1 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	
Surface contact area	Ni 2 µm ... 5 µm , Sn 5 µm ... 7 µm	
Soldering area surface	Ni 2 µm ... 5 µm , Sn 5 µm ... 7 µm	
Surface characteristics	Tin-plated	
Insulating material data	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	29 mm
Width	68.56 mm
Height (without solder pin)	14.25 mm
Total height	19.25 mm
Solder pin [P]	5 mm
Dimension a	60.96 mm

6.2 Dimensions for PCB design

Hole diameter	1.3 mm
Pin dimensions	1 x 0,8 mm

1804865 PC 4/ 9-G-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)

1804865 PC 4/ 9-G-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

1804865 PC 4/ 9-G-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

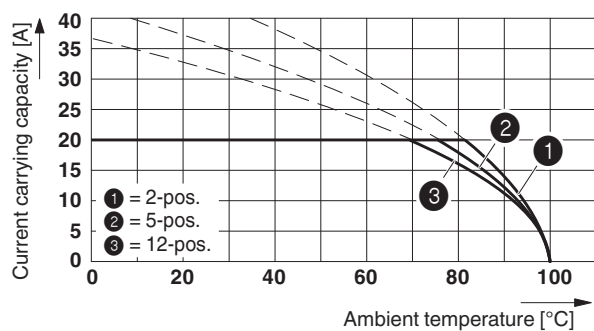
Component	Header		
Specification	IEC 60664-1:2007-04		
Mains type	unearthed mains		
Insulating material group	I		
Comparative tracking index (IEC 60112:2003-01)	CTI 600		
Rated insulation voltage	400 V	630 V	630 V
Rated surge voltage	6 kV	6 kV	6 kV
Degree of pollution	3	2	2
Overvoltage category	III	III	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

1804865 PC 4/ 9-G-7,62

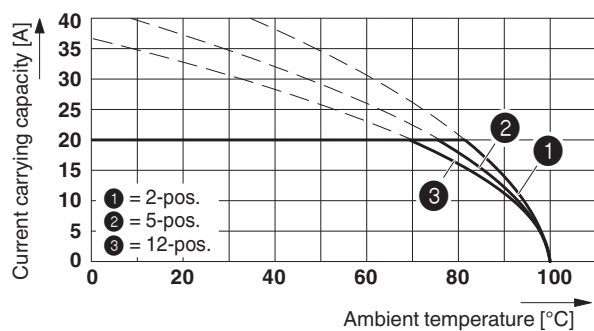
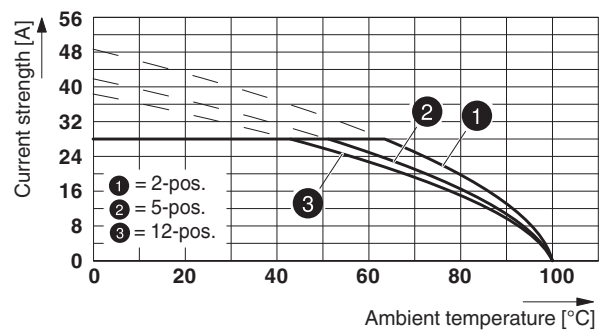
12 Current carrying capacity/derating curves

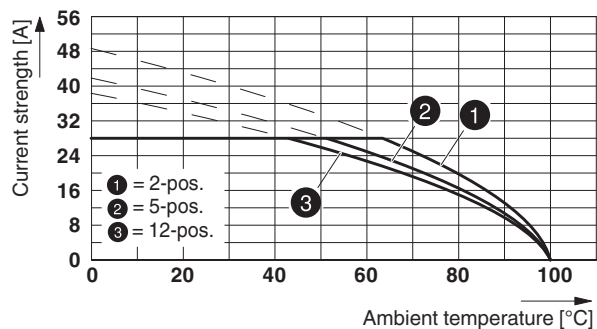
Specification	IEC 61984:2008-10
Note	Representation based on IEC 60512-5-2:2002-02
Reduction factor	0.8
Number of positions	See diagram
Conductor cross section	4 mm ²
Note	

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



Type: PC 4/...-STF-7,62 with PC 4/...-G-7,62 and BF-PC 4

Derating curve for: PC 5/...-ST1-7,62 with PC 4/...-G-7,62
Conductor cross section: 4 mm²

1804865 PC 4/ 9-G-7,62**Type: PC 5/...-STF1-7,62 with PC 4/...-G-7,62 and BF-PC 4****Conductor cross section: 4 mm²****Typ: PC 4/...-STF-7,62 mit PCV 4/...-G-7,62 und BF-PC 4**

1804865 PC 4/ 9-G-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
Protection against electric shock	not encapsulated - back of hand safety when plugged in
Protection class	
Protective conductor	without PE
Lock	no

15 Approvals

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

UL Recognized 				
Use group	B	C		
mm ² /AWG/kcmil				
Voltage	300 V	300 V		
Current	20 A	20 A		

cUL Recognized 				
Use group	B	C		
mm ² /AWG/kcmil				
Voltage	300 V	300 V		
Current	20 A	20 A		

LR 				
--	--	--	--	--

BV 				
--	--	--	--	--

1804865 PC 4/ 9-G-7,62

RS 

EAC 

DNV GL

cULus Recognized 

1804865 PC 4/ 9-G-7,62**16 Commercial Data**

Order No.	1804865
Type	PC 4/ 9-G-7,62
Pieces per package	50
Net weight	15.485 g
GTIN	4017918046309
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1

17 corresponding plugs

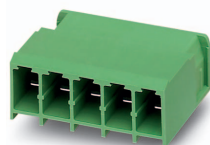
Order No.	Type
1804975	PC 4/ 9-ST-7,62
1840120	PCC 4/ 9-ST-7,62

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
Mounting flange, is snapped onto the left and right of the headers, for screw connection with PC 4/...-STF-7.62	1827570	BF-PC 4
	1968387	POWERCOMBICON PCB-SHIELD

1804865 PC 4/ 9-G-7,62

19 Combination tests

**PC 4/..-G**

Specification

Mechanical tests (A)

Insertion/withdrawal force per position

Polarization when inserted
Requirement >20 NContact holder in insert
Requirements >20 N**Durability tests (B)**Contact resistance R_1

Insertion/withdrawal cycles

Contact resistance R_2 Rated impulse voltage at sea level
Voltage waveform $\geq (1.2/50 \mu s)$ Power-frequency withstand voltage
Voltage waveform $\geq (50/60 \text{ Hz})$ Insulation resistance
Requirements > 5 M Ω **Thermal tests (C)**

Tested number of positions

Tested conductor cross section

Test current

Upper limiting temperature
Requirements < 100°C**Climatic tests (D)**

Test sequence 1: low temperature storage

Test sequence 2: heat storage

Test sequence 3: noxious gas storage
(ISO 6988)Rated impulse voltage at sea level
Voltage waveform $\geq (1.2/50 \mu s)$ Power-frequency withstand voltage
Voltage waveform $\geq (50/60 \text{ Hz})$ **Environmental and endurance tests (E)**

Specification

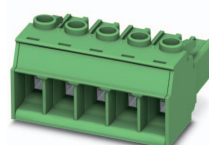
Degree of protection

**PC 4/..-ST**

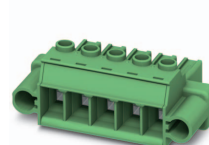
IEC 61984

**PC 4/..-STF**

IEC 61984

**PC 5/..-ST1**

IEC 61984

**PC 5/..-STF1**

IEC 61984

approx. 8 N / 5 N

Test passed

Test passed

0.5 m Ω

50

0.6 m Ω

7.3 kV

3.31 kV

12 T Ω

12

4 mm²

20 A

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle

7.3 kV

3.31 kV

IEC 61984:2008-10

Back of hand safety with
IP10 access probe

approx. 8 N / 5 N

Test passed

Test passed

0.5 m Ω

50

0.6 m Ω

7.3 kV

3.31 kV

12 T Ω

12

4 mm²

20 A

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle

7.3 kV

3.31 kV

IEC 61984:2008-10

Back of hand safety with
IP10 access probe

approx. 8 N / 6 N

Test passed

Test passed

0.45 m Ω

50

0.6 m Ω

7.3 kV

3.31 kV

>10¹² Ω

12

4 mm²

20 A

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle

7.3 kV

3.31 kV

IEC 61984:2008-10

Back of hand safety with
IP10 access probe

approx. 8 N / 6 N

Test passed

Test passed

0.45 m Ω

50

0.6 m Ω

7.3 kV

3.31 kV

>10¹² Ω

12

4 mm²

20 A

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle

7.3 kV

3.31 kV

IEC 61984:2008-10

Back of hand safety with
IP10 access probe

1804865 PC 4/ 9-G-7,62**PC 4/..-G**

Specification

Mechanical tests (A)

Insertion/withdrawal force per position

Polarization when inserted
Requirement >20 NContact holder in insert
Requirements >20 N**Durability tests (B)**Contact resistance R_1

Insertion/withdrawal cycles

Contact resistance R_2 Rated impulse voltage at sea level
Voltage waveform $\geq (1.2/50 \mu s)$ Power-frequency withstand voltage
Voltage waveform $\geq (50/60 \text{ Hz})$ Insulation resistance
Requirements > 5 M Ω **Thermal tests (C)**

Tested number of positions

Tested conductor cross section

Test current

Upper limiting temperature
Requirements < 100°C**Climatic tests (D)**

Test sequence 1: low temperature storage

Test sequence 2: heat storage

Test sequence 3: noxious gas storage
(ISO 6988)Rated impulse voltage at sea level
Voltage waveform $\geq (1.2/50 \mu s)$ Power-frequency withstand voltage
Voltage waveform $\geq (50/60 \text{ Hz})$ **Environmental and endurance tests (E)**

Specification

Degree of protection

**PC 4/..-STF**

IEC 61984

approx. 9 N / 6 N

Test passed

Test passed

0.6 m Ω

25

0.7 m Ω

7.3 kV

3.31 kV

> 0.2 T Ω

12

4 mm²

20 A

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle

7.3 kV

3.31 kV

IEC 61984:2008-10

Finger safety with IP20
test finger