2019-03-15
Product version 01
Document revision 00

Data sheet

Order No.: 1717025

Type: PC 6/ 2-GL2-7,62

PCB headers

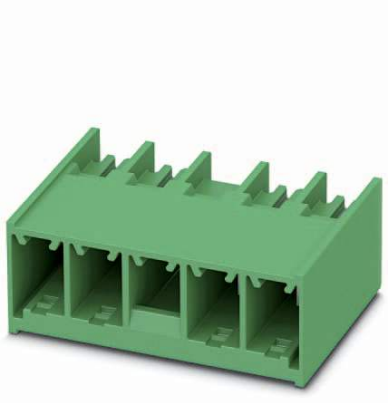


Figure shows a 4-pos. version with locking flange at position 3

1 Main features

- No. of pos. 2
- Nominal cross section 6 mm²
- Color black (9005)
- Pitch 7.62 mm
- Mounting type Wave soldering
- Nominal current 41 A
- Nominal voltage 630 V
- Connection direction 0 °
- Type of packaging

2 Your advantages

- Increased touch protection in the pin connector pattern for maximum safety even when not plugged in
- Easy PCB replacement thanks to plug-in modules
- Well-known mounting principle allows worldwide use

Make sure you always use the latest documentation.
It can be downloaded at: phoenixcontact.net/product/1717025

3 Table of contents

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

5 General Technical Data

5.1 item properties

Order No.	1717025
Type	PC 6/ 2-GL2-7,62
Plug-in system	POWER COMBICON 6
Product type	PCB headers
Range of articles	PC 6/..-GL
Pitch	7.62 mm
Range of positions	2...6
Number of positions	2
Number of levels	1
Number of connections	2
Number of potentials	2
Type of locking	Snap-in locking
	Self-locking flange
Mounting type	Wave soldering
Pin layout	Linear pinning
Solder pins per potential	3

6 Material properties

6.1 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	Nickel (1.3 - 3 µm Ni) , Tin (2 - 4 µm Sn)
Soldering area surface	Nickel (1.3 - 3 µm Ni) , Tin (3 - 5 µm Sn)
Surface characteristics	Tin-plated

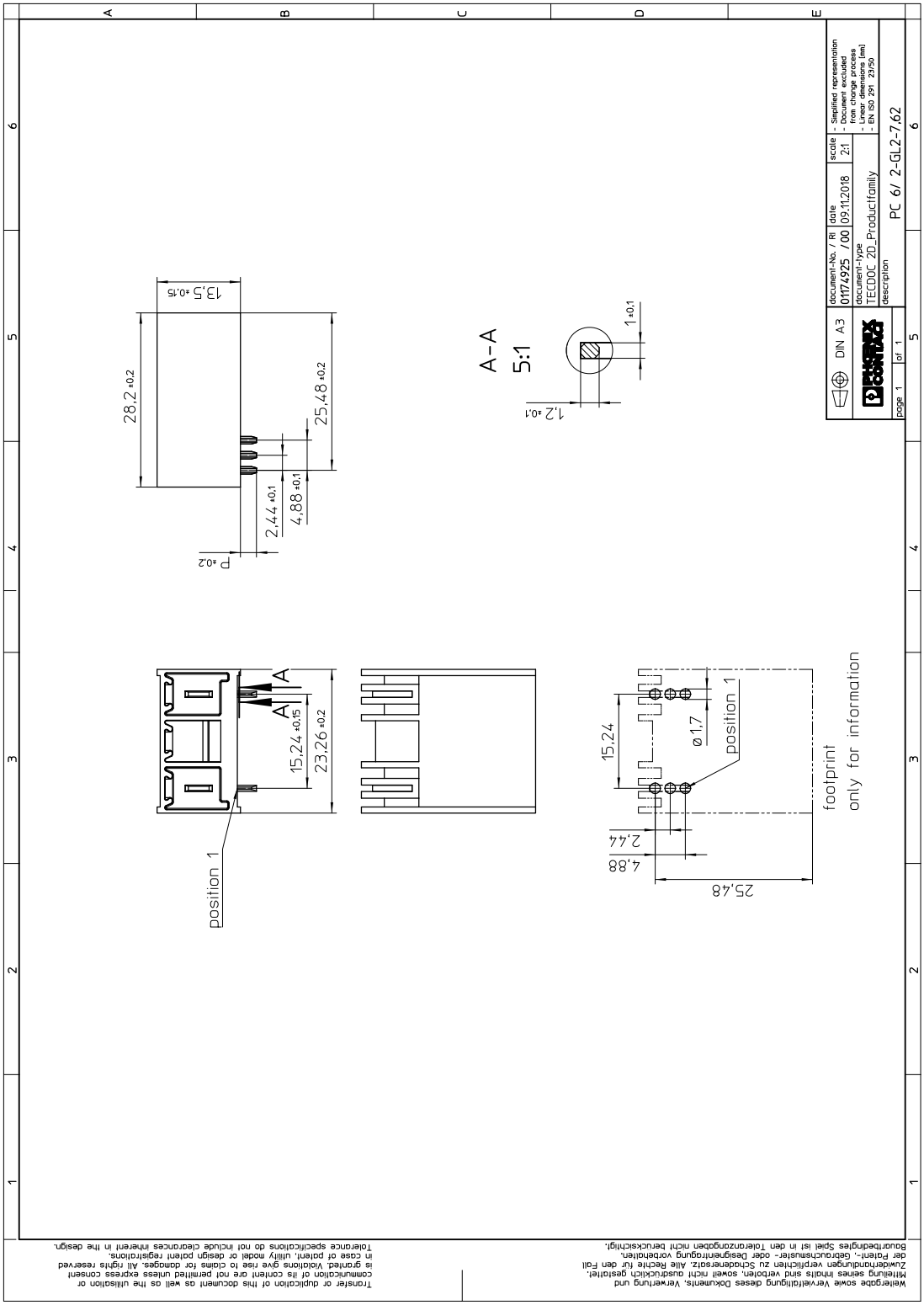
Insulating material data	Housing
Insulating material	PA GF
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0
Color	black (9005)

7 Dimensions

7.1 Dimensions for the product

Length	28.2 mm
Width	23.26 mm
Height (without solder pin)	13.5 mm
Total height	16.1 mm
Solder pin [P]	2.6 mm
Dimension a	

8 Series drawing



9 Application

10 Packaging information

Pieces per package	50

10.1 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)

11 Mechanical tests

Mechanical test group A	
Specification	IEC 61984:2008-10
Visual examination	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.	11 N
Withdraw strength per pos. approx.	10 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

12 Electrical tests

12.1 Electrical data

Rated current / conductor cross section	41 A 6 mm²
Rated insulation voltage (III/2)	630 V
Rated surge voltage (III/2)	6 kV
Contact resistance	0.5 mΩ
Degree of pollution	2

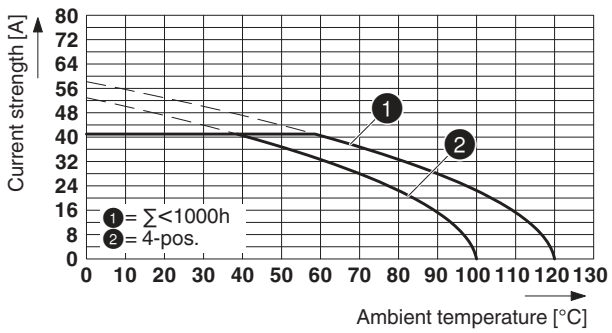
12.2 Air and creepage distances

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	630 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	8 mm	3.2 mm	5 mm

13 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 mm²

Type: LPC 6/...-STL...-7,62 with PC 6/...-GL...-7,62



Insulation resistance	
Specification	IEC 60512-3-1:2002-02
Result	Test passed
Insulation resistance, neighboring positions	> 4 TΩ

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
Note	The connected conductor loops were guided to the test sample at a distance of approx. 10 cm.

14 Approvals

cULus Recognized				
Use group	F	B	C	
mm²/AWG/kcmil				
Voltage	600 V	300 V	300 V	
Current	35 A	35 A	35 A	

15 Commercial Data

Order No.	1717025
Type	PC 6/ 2-GL2-7,62
Pieces per package	50
Net weight	80 g
GTIN	4055626536309
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1

16 corresponding plugs

Order No.	Type
1716930	LPC 6/ 2-STL2-7,62

17 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

18 Combination tests

PC 6/..-GL	**LPC 6/..-STL2**
IEC 61984	IEC 61984
Mechanical tests (A)	
Insertion/withdrawal force per position	approx. 11 N / 10 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	25
Contact resistance R_2	0.5 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
Thermal tests (C)	
Tested number of positions	4
Tested conductor cross section	6 mm^2
Test current	41 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	Finger safety with IP20 test finger