

Order No.: 1716921

Type: LPC 6/ 2-ST-7,62

PCB connector, Push-in spring connection



The figure shows the 2-position version.

1 Main features



- | | | | |
|---------------------------|---------------------------|------------------------|---------------------|
| • No. of pos. | 2 | • Nominal current | 41 A |
| • Conductor cross section | 6 mm ² | • Nominal voltage | 1000 V |
| • Color | green (6021) | • Connection direction | 0 ° |
| • Pitch | 7.62 mm | • Type of packaging | packed in cardboard |
| • Connection method | Push-in spring connection | | |

2 Your advantages

- ✓ Tool-free lever principle enables time-saving connection and release of conductors with/without ferrules
- ✓ Clear lever positions provide reliable feedback on opened or closed clamping spaces
- ✓ Defined contact force ensures that contact remains stable over the long term
- ✓ Time-saving push-in connection when lever is closed



Make sure you always use the latest documentation.
It can be downloaded at: phoenixcontact.net/product/1716921

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
6	Dimensions.....	5
7	Series drawing.....	6
8	Packaging information	7
9	Application.....	7
10	General tests	8
11	Mechanical tests.....	8
12	Electrical tests	10
13	Current carrying capacity/derating curves	11
14	Environmental and durability tests	12
15	Classification for connectors.....	12
16	Approvals	12
17	Commercial Data.....	13
18	corresponding headers.....	13
19	Accessories.....	13
20	Combination tests.....	14

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



1716921 LPC 6/ 2-ST-7,62**5 item properties**

Order No.	1716921
Type	LPC 6/ 2-ST-7,62
Plug-in system	POWER COMBICON 6
Product type	PCB connector
Type of contact	Female connector
Range of articles	LPC 6/...ST
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
Connection method	Push-in spring connection
Type of locking	without
	without

5.1 Connection capacity

Conductor cross section, solid	0.75 mm ² ... 10 mm ²
Conductor cross section, flexible	0.75 mm ² ... 6 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve	0.75 mm ² ... 6 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve	0.75 mm ² ... 6 mm ²
Cylindrical gauge a x b / diameter	4.3 mm x 4.0 mm / 4.0 mm
Stripping length	18 mm

5.2 Connection capacity AWG

Conductor cross section AWG	18 ... 8
-----------------------------	----------

5.3 Material data

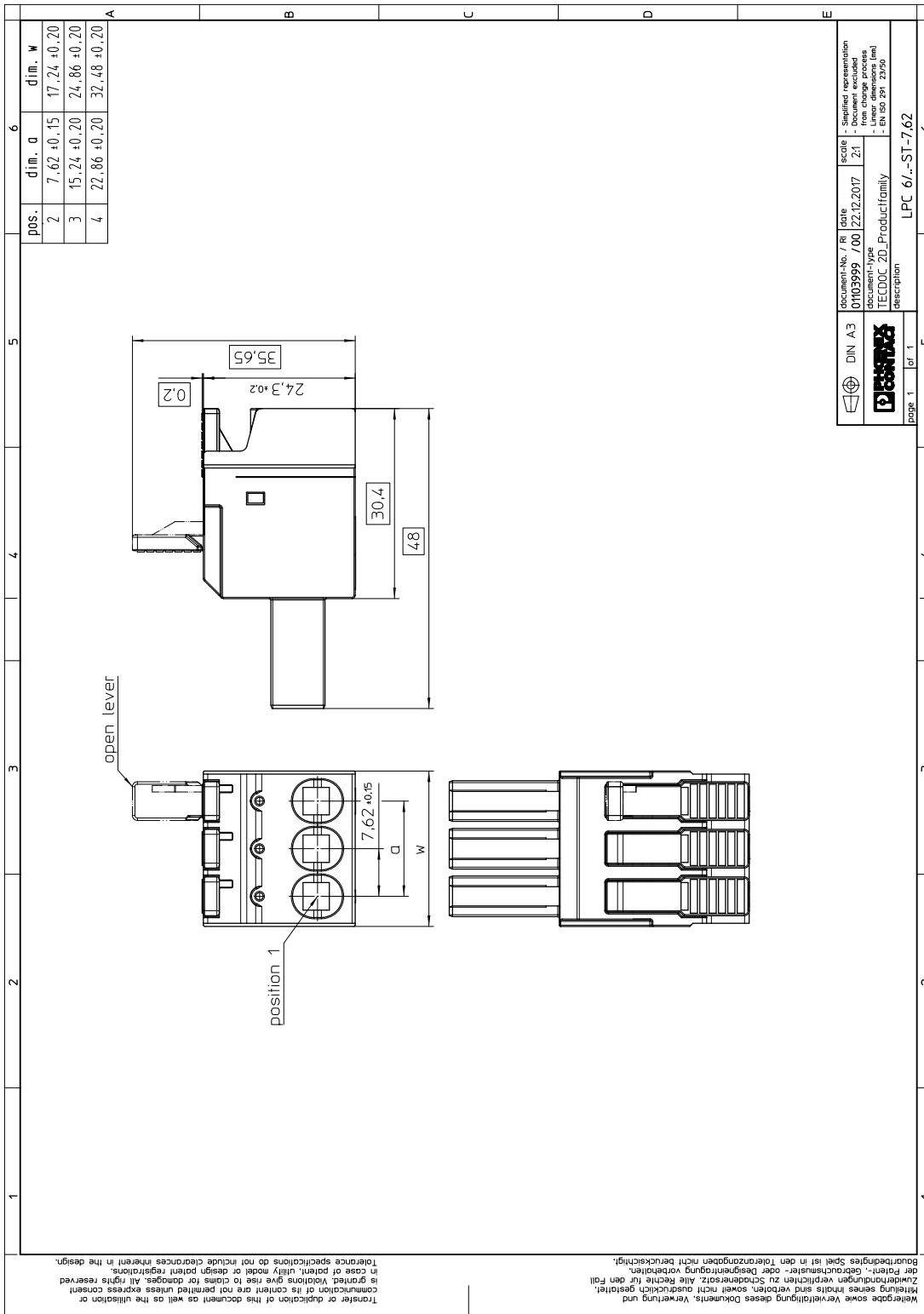
Material of metal parts		
Note	WEEE/RoHS-compliant, whisker-free acc. to IEC 60068-2-82/JEDEC JESD 201	
Contact material	Cu alloy	
Terminal point surface	Tin (4 - 8 µm Sn)	
Surface contact area	Tin (4 - 8 µm Sn)	
Surface characteristics	Tin-plated	
Insulating material data	Housing	Actuation element
Insulating material	PA GF	PA GF
Insulating material group	I	I
CTI according to IEC 60112	600	600
Flammability rating according to UL 94	V0	V0
Color	green (6021)	

1716921 LPC 6/ 2-ST-7,62**6 Dimensions****6.1 Dimensions for the product**

Length	48 mm
Width	17.24 mm
Height (without solder pin)	35.65 mm
Total height	35.65 mm
Dimension a	7.62 mm

1716921 LPC 6/ 2-ST-7,62

7 Series drawing



1716921 LPC 6/ 2-ST-7,62**8 Packaging information**

Type of packaging	packed in cardboard
Pieces per package	25

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)

1716921 LPC 6/ 2-ST-7,62**10 General tests****10.1 Specification**

Specification	IEC 61984
Specification	IEC 60999-1

11 Mechanical tests**11.1 Check for damage to conductor or loosening**

Result	Test passed
Specification	IEC 60999-1:1999-11

11.2 Pull-out test

Specification	IEC 60999-1:1999-11
Result	Test passed
Conductor cross section/conductor type/tractive force actual value	0.75 mm ² / solid / > 30 N
Conductor cross section/conductor type/tractive force actual value	0.75 mm ² / flexible / > 30 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 / flexible / > 80 N

11.3 Repeated connection and disconnection

Specification	IEC 60999-1:1999-11
Result	Test passed

11.4 Conductor connection

Specification	IEC 60999-1:1999-11
Result	Test passed

11.5 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

1716921 LPC 6/ 2-ST-7,62

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

1716921 LPC 6/ 2-ST-7,62**12 Electrical tests****12.1 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	0.5 mΩ
Degree of pollution	2

12.2 Air and creepage distances

Component	PCB connector		
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	800 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	10 mm	5 mm	5 mm

12.3 Electrical function

Specification	IEC 60999-1:1999-11
Result	Test passed
Voltage drop	Voltage drop (U) after the load ≤ 15 mV
Conductor cross section, flexible	0.75 mm ² ... 6 mm ²
Conductor cross section, solid	0.75 mm ² ... 10 mm ²

12.4 Temperature cycles

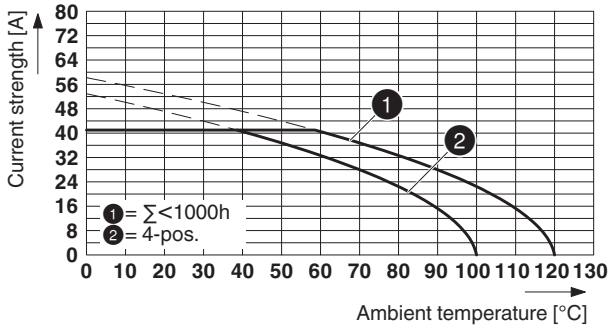
Specification	
Result	Test passed
Voltage drop	Voltage drop (U) after the load ≤ 22.5 mV or 1.5 x U _{after 24 h} The small value is to be used.
Test current (minimum cross section)	9 A DC
Test current (maximum cross section)	41 A DC
Temperature cycles	192
Conductor cross section, flexible	0.75 mm ² ... 6 mm ²
Conductor cross section, solid	0.75 mm ² ... 10 mm ²

1716921 LPC 6/ 2-ST-7,62

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 mm ²

Type: LPC 6/...-ST-7,62 with PC 6/...-G-7,62



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

1716921 LPC 6/ 2-ST-7,62**14 Environmental and durability tests****14.1 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.


15 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

15.1 Insulation resistance

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

16 Approvals

cULus Recognized 				
Use group	F	B	C	
mm ² /AWG/kcmil	18-8	18-8	18-8	
Voltage	600 V	600 V	600 V	
Current	35 A	35 A	35 A	

1716921 LPC 6/ 2-ST-7,62**17 Commercial Data**

Order No.	1716921
Type	LPC 6/ 2-ST-7,62
Pieces per package	25
Net weight	14 g
GTIN	4055626515007
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1

18 corresponding headers

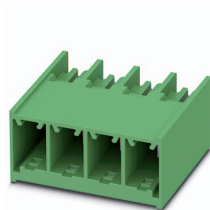
Order No.	Type
1054546	PC 6/ 2-G-7,62

19 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
	3200603	AI 6 -18 YE
Crimping pliers, for uninsulated and insulated ferrules, DIN 46228 Part 1 and 4, from 0.14 mm ² ... 6 mm ² , also for TWIN ferrules up to 2 x 4 mm ² , automatic cross section adjustment, lateral insertion, equipped with fall protection	1213144	CRIMPFOX CENTRUS 6S
Stripping tool, for cables and conductors from 0.02 - 10 mm ² , self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm ² stranded/1.5 mm ² solid, replaceable stripping blade	1212150	WIREFOX 10

1716921 LPC 6/ 2-ST-7,62

20 Combination tests

**LPC 6/..-ST**

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 m Ω

Insertion/withdrawal cycles

25

Contact resistance R_2 0.5 m Ω Rated impulse voltage at sea level
Voltage waveform $\geq (1.2/50 \mu\text{s})$

7.3 kV

Power-frequency withstand voltage
Voltage waveform $\geq (50/60 \text{ Hz})$

3.31 kV

Thermal tests (C)

Tested number of positions

4

Tested conductor cross section

6 mm²

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 dm³ SO₂ on 300 dm³/
40 °C/1 cycleRated impulse voltage at sea level
Voltage waveform $\geq (1.2/50 \mu\text{s})$

7.3 kV

Power-frequency withstand voltage
Voltage waveform $\geq (50/60 \text{ Hz})$

3.31 kV

Environmental and endurance tests (E)

Specification

IEC 61984:2008-10

Degree of protection

Finger safety with IP20
test finger