2021-02-23
Product version 00
Document revision 00

Data sheet

Order No.: 1119809

Type: LPT 16/ 1-10,0

PCB terminal block, Lever Push-in connection



The figure shows a 1-pos. version of the product

1 Main features



- No. of pos. 1
- Conductor cross section 16 mm²
- Color green (6021)
- Pitch 10 mm
- Connection method Lever Push-in connection
- Nominal current 76 A
- Nominal voltage
- Connection direction 0 °
- Type of packaging packed in cardboard

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
- Intuitive operation, thanks to a color-coded actuation lever

Make sure you always use the latest documentation.
It can be downloaded at: phoenixcontact.net/product/1119809

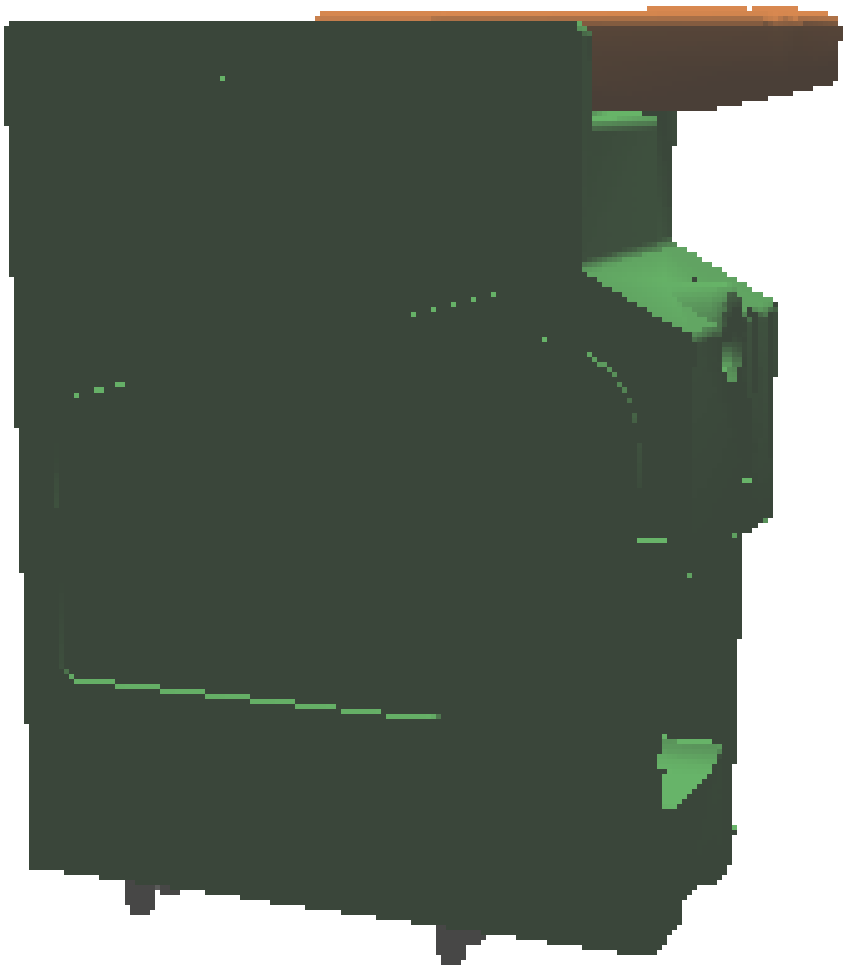
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3 Table of contents

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 General Technical Data ... 4
6 Conductor connection ... 5
7 Material properties ... 5
8 Dimensions ... 6
9 Series drawing ... 7
10 Application ... 8
11 Packaging information ... 8
12 Mechanical tests ... 9
13 Electrical tests ... 10
14 Current carrying capacity/derating curves ... 11
15 Environmental and durability tests ... 12
16 Commercial Data ... 13

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



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5 General Technical Data

5.1 item properties

Order No.	1119809
Type	LPT 16/ 1-10,0
Product type	PCB terminal block
Range of articles	LPT 16/
Pitch	10 mm
Number of positions	1
Number of levels	1
Number of connections	1
Number of potentials	1
Connection method	Lever Push-in connection
Mounting type	Wave soldering
Connection direction of the conductor to the PCB	0 °
Pin layout	Linear pinning

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6 Conductor connection

6.1 Connection capacity

Conductor cross section, rigid	0.75 mm² ... 16 mm² (Conductor connection with open terminal point)
Conductor cross section, rigid	1.5 mm² ... 16 mm² (Push-in connection)
Conductor cross section, multi-stranded	0.75 mm² ... 16 mm²
Conductor cross section, flexible	0.75 mm² ... 25 mm²
Conductor cross section flexible, with ferrule without plastic sleeve	0.75 mm² ... 16 mm²
Conductor cross section flexible, with ferrule with plastic sleeve	0.75 mm² ... 16 mm²
2 conductors with the same cross section flexible with TWIN ferrule and plastic sleeve	4 mm² ... 6 mm²
Stripping length	18 mm ... 20 mm

6.2 Connection capacity AWG

Conductor cross section AWG	18 ... 4

7 Material properties

7.1 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 (10 - 16 µm Sn)
Soldering area surface	Tin (10 - 16 µm Sn)
Surface characteristics	Tin-plated

7.2 Material of plastic parts

	Housing	Actuation element
Color	green (6021)	orange (2003)
Insulating material	PA	PA GF
Insulating material group	I	I
CTI according to IEC 60112	600	600
Flammability rating according to UL 94	V0	V0
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	

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8 Dimensions

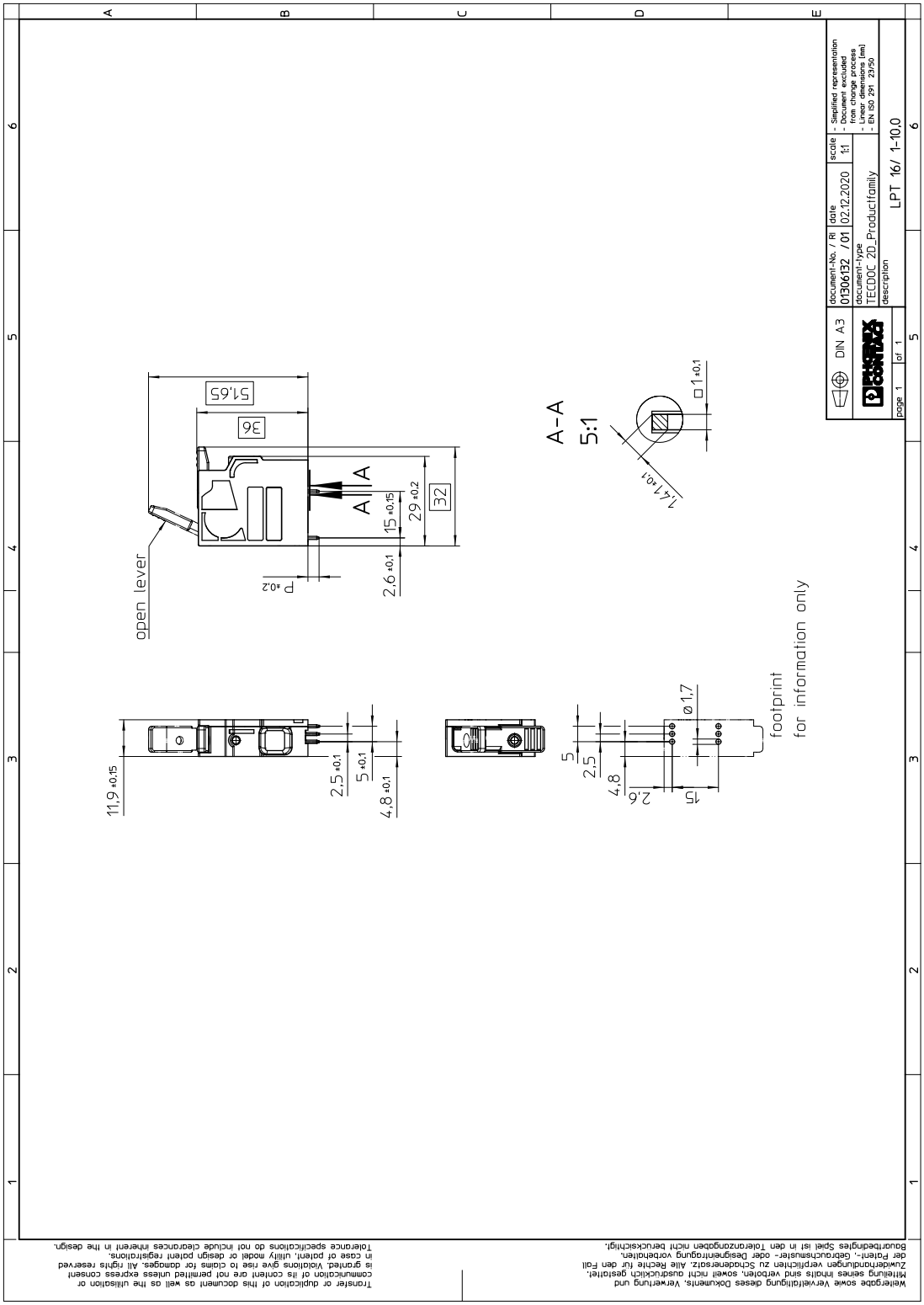
8.1 Dimensions for the product

Length	32 mm
Width	11.9 mm
Height (without solder pin)	36 mm
Total height	39.6 mm
Solder pin [P]	3.6 mm

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1119809 LPT 16/ 1-10,0

9 Series drawing



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10 Application

11 Packaging information

Type of packaging	packed in cardboard
Pieces per package	25

11.1 Temperature limit values

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 105 °C (Depending on the current carrying capacity/derating curve)

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12 Mechanical tests

12.1 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	16 mm^2 / solid / > 100 N
Conductor cross section/conductor type/tractive force actual value	25 mm^2 / flexible / > 135 N

12.2 Check for damage to conductor or loosening

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

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13 Electrical tests

13.1 Electrical data

Rated current / conductor cross section	76 A / 16 mm²
Rated insulation voltage (III/2)	
Rated surge voltage (III/2)	
Contact resistance	0.38 mΩ
Degree of pollution	2

13.2 Short-time withstand current test

Specification	IEC 60947-7-4:2019-01
Result	Test passed
Conductor cross section/short-time current	16 mm² / 720 A

13.3 Aging test (climatic impact and corrosion testing)

Specification	IEC 60947-7-4:2019-01
Result	Test passed
Contact resistance R_1	0.38 mΩ / 16 mm²
Test sequence 1: low temperature storage	-40 °C / 2 h
Test sequence 2: heat storage	168 h/105 °C
Test sequence 3: noxious gas storage (ISO 6988)	KFW 0.2 S/1 cycle
Contact resistance R_2	0.2 mΩ / 16 mm²
Rated impulse voltage at sea level Voltage waveform ≥ (1.2/50 µs)	9.8 kV
Power-frequency withstand voltage Voltage waveform ≥ (50/60 Hz)	4.2 kV

13.4 Insulation resistance

Specification	IEC 60512-3-1:2002-02
Result	Test passed
Insulation resistance, neighboring positions	> 5 MΩ

13.5 Mechanical connection test for the PCB terminal block

Specification	IEC 60947-7-4:2019-01
Result	Test passed

13.6 Temperature rise test

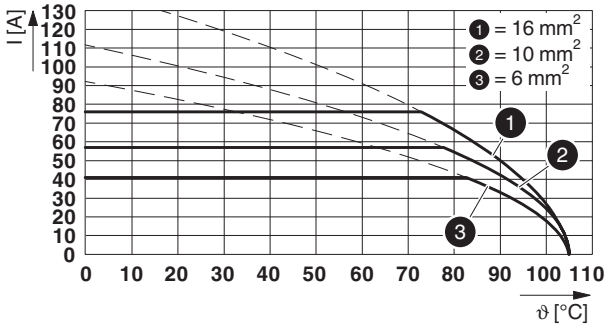
Specification	IEC 60947-7-4:2019-01
Result	Test passed
Requirement temperature-rise test	The sum of ambient temperature and temperature rise of the PCB terminal block shall not exceed the upper limiting temperature.
Conductor cross section/test current/temperature rise	16 mm² / 76 A / 32.1 K
Conductor cross section/test current/temperature rise	10 mm² / 57 A / 27.3 K
Conductor cross section/test current/temperature rise	6 mm² / 41 A / 22.4 K

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14 Current carrying capacity/derating curves

Specification	IEC 60947-7-4:2019-01
Note	Representation based on IEC 60512-5-2:2002-02
Reduction factor	1
Number of positions	1
Conductor cross section	16 mm²

Type: LPT 16/ 1-10,0



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15 Environmental and durability tests

15.1 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	50 m/s^2 (60.1 - 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis
Note	

15.2 Assessment of fire risk (glow wire test)

Specification	IEC 60695-2-10:2013-04		
Result	Test passed		
Temperature	850 °C		
Time of exposure	5 s		

15.3 Shock protection

Specification	Following IEC 60529:1989-11 + AMD 1:1999-11 + AMD 2:2013-08
Back of the hand protection (Ball ø 50)	conditional guaranteed
Finger protection (movable test finger)	conditional guaranteed
Note	Contact protection above the PCB is only assured when a conductor with a cross-section of 6 mm^2 is connected.

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16 Commercial Data

Order No.	1119809
Type	LPT 16/ 1-10,0
Pieces per package	25
Net weight	12.83 g
GTIN	4063151065560
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1

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