

Order No.: 1119810

Type: LPT 16/ 2-10,0-ZB

PCB terminal block, Lever Push-in connection



The figure shows a 5-position version

## 1 Main features



- |                           |                          |                        |                     |
|---------------------------|--------------------------|------------------------|---------------------|
| • No. of pos.             | 2                        | • Nominal current      | 76 A                |
| • Conductor cross section | 16 mm <sup>2</sup>       | • Nominal voltage      | 1000 V              |
| • Color                   | green (6021)             | • Connection direction | 0 °                 |
| • Pitch                   | 10 mm                    | • Type of packaging    | packed in cardboard |
| • Connection method       | Lever Push-in 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
- ✓ Intuitive operation, thanks to a color-coded actuation lever



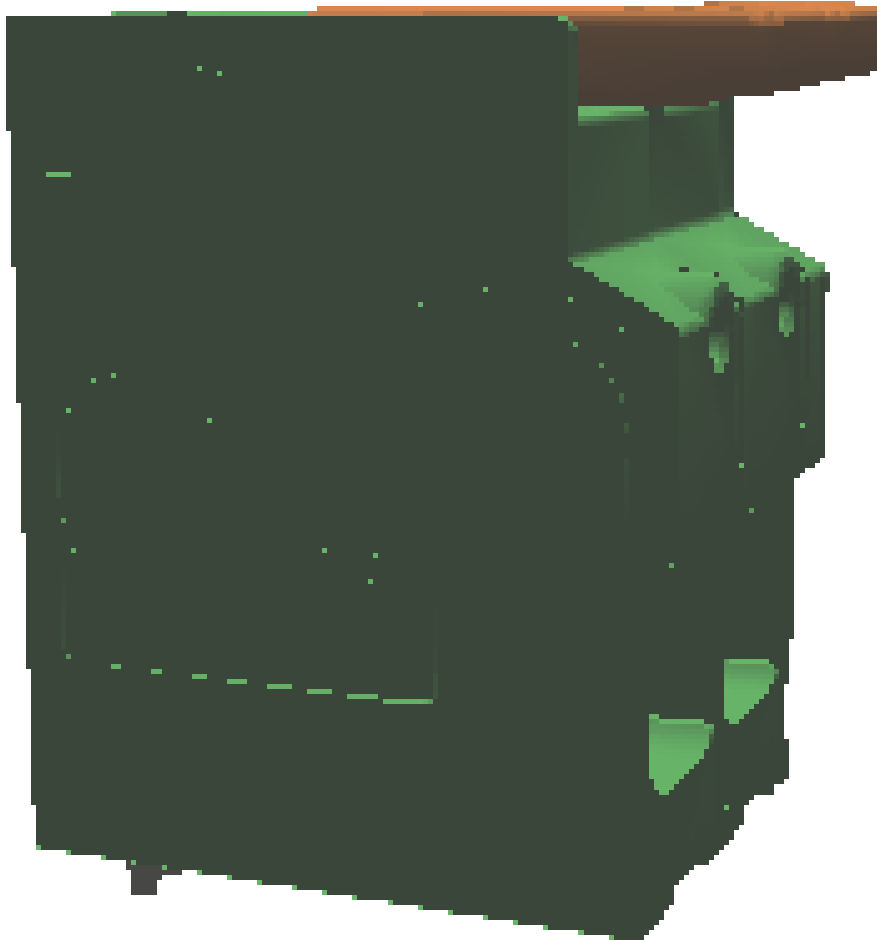
Make sure you always use the latest documentation.  
It can be downloaded at: [phoenixcontact.net/product/1119810](https://phoenixcontact.net/product/1119810)

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



**1119810 LPT 16/ 2-10,0-ZB****5 General Technical Data****5.1 item properties**

Order No.	1119810
Type	LPT 16/ 2-10,0-ZB
Product type	PCB terminal block
Range of articles	LPT 16/
Pitch	10 mm
Number of positions	2
Number of levels	1
Number of connections	2
Number of potentials	2
Connection method	Lever Push-in connection
Mounting type	Wave soldering
Connection direction of the conductor to the PCB	0 °
Pin layout	Zigzag pinning W

**1119810 LPT 16/ 2-10,0-ZB****6 Conductor connection****6.1 Connection capacity**

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

**6.2 Connection capacity AWG**

Conductor cross section AWG	18 ... 4
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**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**

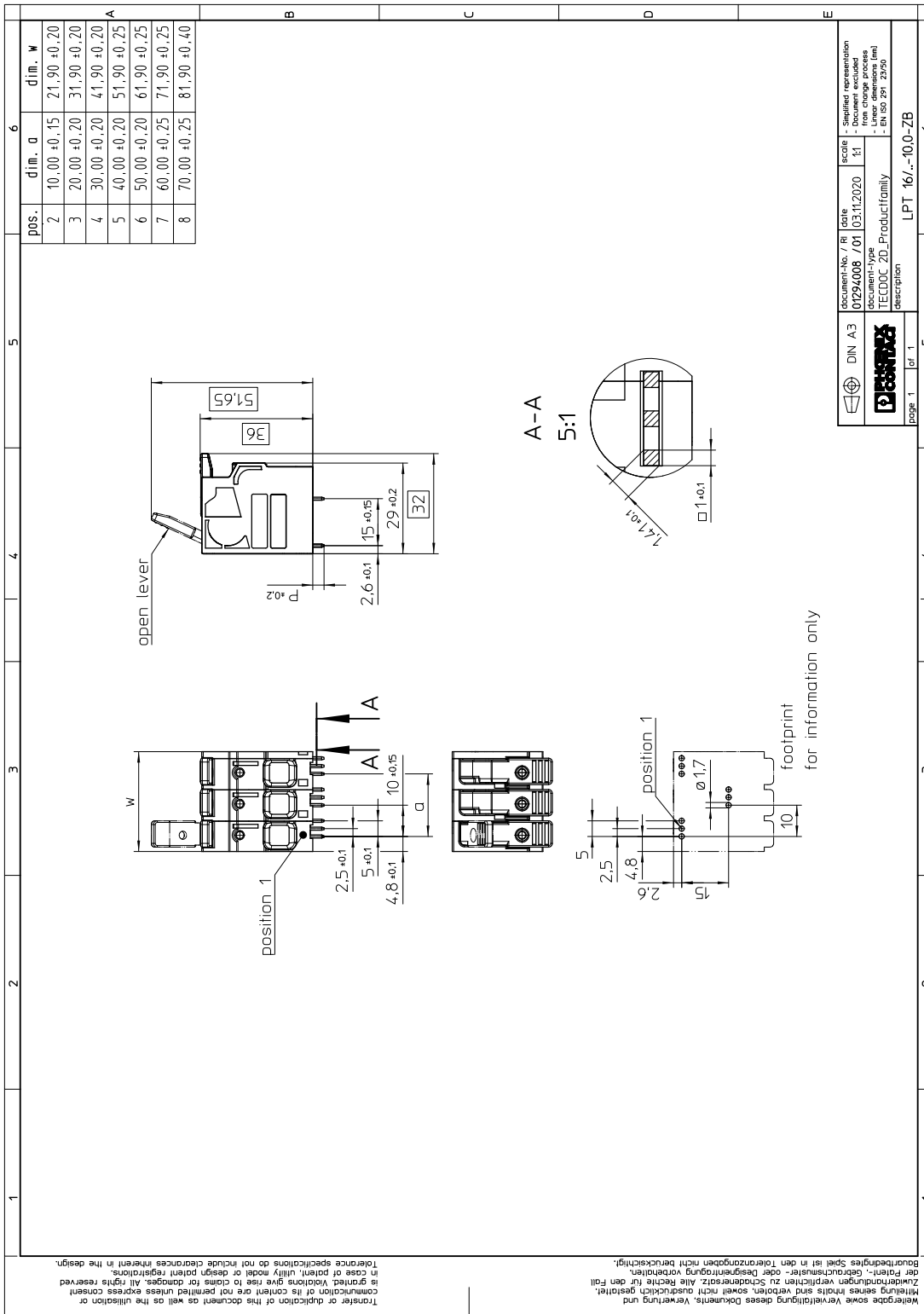
	Housing	Actuation element
Color	green (6021)	orange (2003)
Insulating material	PA	PA GF
Insulating material group	I	I
CTI according to IEC 60112	600	600
Flammability rating according to UL 94	V0	V0
Glow wire flammability index GWFI according to EN 60695-2-12	850	
Glow wire ignition temperature GWIT according to EN 60695-2-13	775	
Temperature for the ball pressure test according to EN 60695-10-2	125 °C	

**1119810 LPT 16/ 2-10,0-ZB****8 Dimensions****8.1 Dimensions for the product**

Length	32 mm
Width	21.9 mm
Height (without solder pin)	36 mm
Total height	39.6 mm
Solder pin [P]	3.6 mm

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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)



**1119810 LPT 16/ 2-10,0-ZB****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 <sup>2</sup> / solid / > 30 N
Conductor cross section/conductor type/tractive force actual value	0.75 mm <sup>2</sup> / flexible / > 30 N
Conductor cross section/conductor type/tractive force actual value	16 mm <sup>2</sup> / solid / > 100 N
Conductor cross section/conductor type/tractive force actual value	25 mm <sup>2</sup> / flexible / > 135 N

**12.2 Check for damage to conductor or loosening**

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

**1119810 LPT 16/ 2-10,0-ZB****13 Electrical tests****13.1 Electrical data**

Rated current / conductor cross section	76 A / 16 mm <sup>2</sup>
Rated insulation voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
Contact resistance	0.38 mΩ
Degree of pollution	2

**13.2 Air and creepage distances**

Component	PCB terminal block		
Specification	IEC 60947-7-4:2019-01		
Mains type	unearthed mains		
Insulating material group	I		
Comparative tracking index (IEC 60112:2003-01)	CTI 600		
Rated insulation voltage	1000 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	12.5 mm	8 mm	5.5 mm

**13.3 Short-time withstand current test**

Specification	IEC 60947-7-4:2019-01
Result	Test passed
Conductor cross section/short-time current	16 mm <sup>2</sup> / 360 A

**13.4 Aging test (climatic impact and corrosion testing)**

Specification	IEC 60947-7-4:2019-01
Result	Test passed
Contact resistance R <sub>1</sub>	0.38 mΩ / 16 mm <sup>2</sup>
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 <sub>2</sub>	0.2 mΩ / 16 mm <sup>2</sup>
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

**13.5 Insulation resistance**

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Specification	IEC 60512-3-1:2002-02
Result	Test passed
Insulation resistance, neighboring positions	> 5 M $\Omega$

**13.6 Mechanical connection test for the PCB terminal block**

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

**13.7 Temperature rise test**

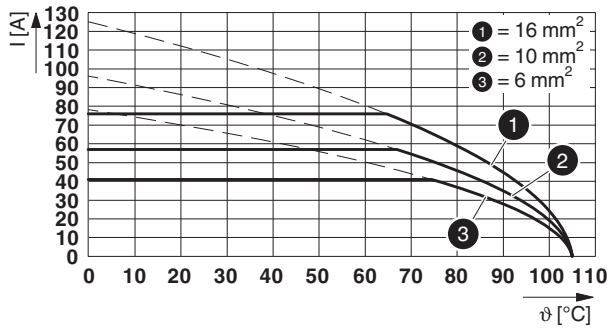
Specification	IEC 60947-7-4:2019-01
Result	Test passed
Requirement temperature-rise test	The sum of ambient temperature and temperature rise of the PCB terminal block shall not exceed the upper limiting temperature.
Conductor cross section/test current/temperature rise	16 mm <sup>2</sup> / 76 A / 40.3 K
Conductor cross section/test current/temperature rise	10 mm <sup>2</sup> / 57 A / 38.1 K
Conductor cross section/test current/temperature rise	6 mm <sup>2</sup> / 41 A / 31.2 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	4
Conductor cross section	16 mm <sup>2</sup>

## Type: LPT 16/...-10,0-ZB



**1119810 LPT 16/ 2-10,0-ZB****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 <sup>2</sup> (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 <sup>2</sup> is connected.

**1119810 LPT 16/ 2-10,0-ZB****16 Commercial Data**

Order No.	1119810
Type	LPT 16/ 2-10,0-ZB
Pieces per package	25
Net weight	2.22 g
GTIN	4063151065577
	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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