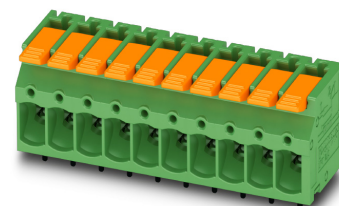


# Data sheet

Order No.: 1190307

Type: LPT 2,5/10-5,0

PCB terminal block, Lever Push-in connection



## 1 Main features



- |                           |                          |                        |                     |
|---------------------------|--------------------------|------------------------|---------------------|
| • No. of pos.             | 10                       | • Nominal current      | 24 A                |
| • Conductor cross section | 2.5 mm <sup>2</sup>      | • Nominal voltage      | 400 V               |
| • Color                   | green (6021)             | • Connection direction | 0 °                 |
| • Pitch                   | 5 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.

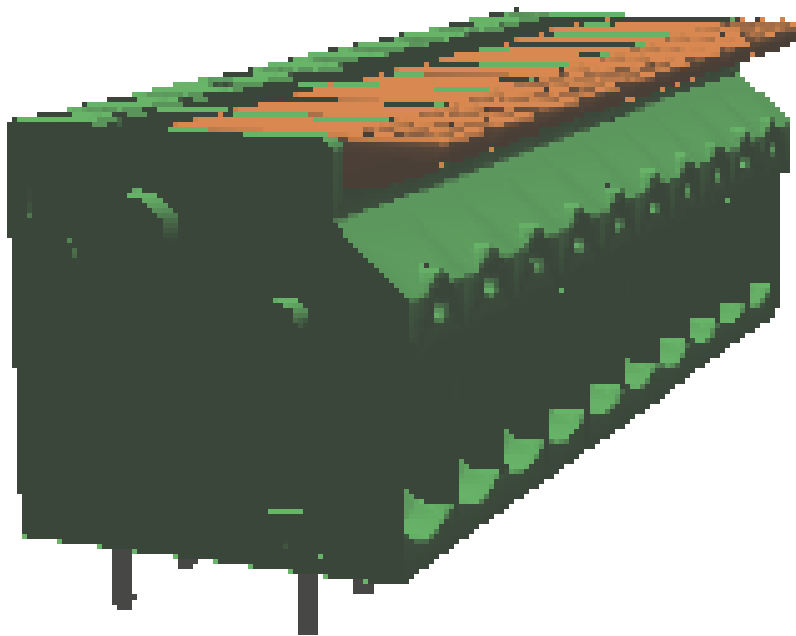
It can be downloaded at: [phoenixcontact.net/product/1190307](https://phoenixcontact.net/product/1190307)

**1190307 LPT 2,5/10-5,0****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 .....	12
15	Environmental and durability tests .....	13
16	Commercial Data.....	14

1190307 LPT 2,5/10-5,0

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



**1190307 LPT 2,5/10-5,0**

## 5 General Technical Data

### 5.1 item properties

Order No.	1190307
Type	LPT 2,5/10-5,0
Product type	PCB terminal block
Range of articles	LPT 2,5/
Pitch	5 mm
Number of positions	10
Number of levels	1
Number of connections	10
Number of potentials	10
Connection method	Lever Push-in connection
Mounting type	Wave soldering
Connection direction of the conductor to the PCB	0 °
Pin layout	Linear double pinning

**1190307 LPT 2,5/10-5,0****6 Conductor connection****6.1 Connection capacity**

Conductor cross section, rigid	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup> (Conductor connection with open terminal point)
Conductor cross section, rigid	0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup> (Push-in connection)
Conductor cross section, flexible	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (Conductor connection with open terminal point)
Conductor cross section flexible, with ferrule with plastic sleeve	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (Conductor connection with open terminal point)
2 conductors with the same cross section flexible with TWIN ferrule and plastic sleeve	0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Stripping length	10 mm ... 12 mm

**6.2 Connection capacity AWG**

Conductor cross section AWG	24 ... 12
-----------------------------	-----------

**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	

**1190307 LPT 2,5/10-5,0****8 Dimensions****8.1 Dimensions for the product**

Length	17.8 mm
Width	51.5 mm
Height (without solder pin)	16.64 mm
Total height	20.24 mm
Solder pin [P]	3.5 mm

1190307 LPT 2,5/10-5,0

9 Series drawing

pos.	dim. a	dim. w
1	-	6.50 ±0.15
2	5.00 ±0.10	11.50 ±0.15
3	10.00 ±0.15	16.50 ±0.15
4	15.00 ±0.15	21.50 ±0.20
5	20.00 ±0.20	26.50 ±0.20
6	25.00 ±0.20	31.50 ±0.20
7	30.00 ±0.20	36.50 ±0.20
8	35.00 ±0.20	41.50 ±0.20
9	40.00 ±0.20	46.50 ±0.20
10	45.00 ±0.20	51.50 ±0.25
11	50.00 ±0.20	56.50 ±0.25
12	55.00 ±0.25	61.50 ±0.25

Transfer or duplication of this document as well as the utilisation or communication of its content are not permitted unless express consent is granted. Violations give rise to claims for damages. All rights reserved in case of patent, utility model or design patent registrations. Bortrechtiges Spiel ist in den Toleranzangaben nicht berücksichtigt. Mitteilung seines Inhalts sind verboten, soweit nicht ausdrücklich gestattet. Zuwiderhandlungen verpflichten zu Schadenersatz. Alle Rechte für den Fall der Patent-, Gebrauchsmuster- oder Designregistrationsverfahren vorbehalten. © PHOENIX CONTACT 2021

## 10 Application

## 11 Packaging information

Type of packaging	packed in cardboard
Pieces per package	50

### 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)



**1190307 LPT 2,5/10-5,0****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	0.2 mm <sup>2</sup> / solid / > 10 N
Conductor cross section/conductor type/tractive force actual value	0.2 mm <sup>2</sup> / flexible / > 10 N
Conductor cross section/conductor type/tractive force actual value	4 mm <sup>2</sup> / solid / > 60 N
Conductor cross section/conductor type/tractive force actual value	4 mm <sup>2</sup> / flexible / > 60 N
Conductor cross section/conductor type/tractive force actual value	0.5 mm <sup>2</sup> / solid / > 20 N

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

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

**1190307 LPT 2,5/10-5,0****13 Electrical tests**

Rated current / conductor cross section	24 A / 2.5 mm <sup>2</sup>
Rated insulation voltage (III/2)	400 V
Rated surge voltage (III/2)	4 kV
Contact resistance	0.34 mΩ
Degree of pollution	2

**13.1 Air and creepage distances**

Component	PCB terminal block		
Specification	IEC 60947-7-4:2019-01		
Mains type	unearthed mains		
Insulating material group			
Comparative tracking index (IEC 60112:2003-01)			
Rated insulation voltage	320 V	400 V	630 V
Rated surge voltage	4 kV	4 kV	4 kV
Degree of pollution	3	2	2
Overvoltage category	III	III	II
Minimum clearance case A (inhomogeneous field)	3 mm	3 mm	3 mm
Minimum value of the creepage path requirement in acc. with table	4 mm	3 mm	3.2 mm

**13.2 Short-time withstand current test**

Specification	IEC 60947-7-4:2019-01
Result	Test passed
Conductor cross section/short-time current	4 mm <sup>2</sup> / 168 A

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

Specification	IEC 60947-7-4:2019-01
Result	Test passed
Contact resistance R <sub>1</sub>	0.34 mΩ / 4 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>	0.36 mΩ / 4 mm <sup>2</sup>
Rated impulse voltage at sea level Voltage waveform ≥ (1.2/50 μs)	4.8 kV
Power-frequency withstand voltage Voltage waveform ≥ (50/60 Hz)	3.1 kV

**13.4 Insulation resistance**

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

**1190307 LPT 2,5/10-5,0****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**

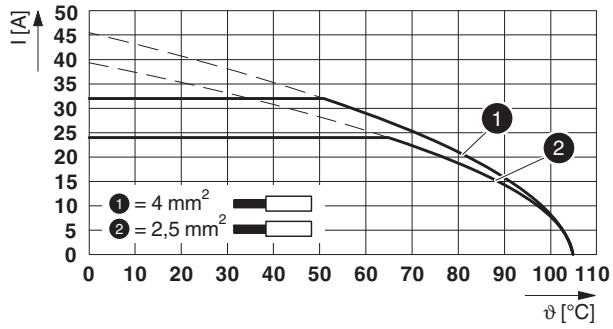
Specification	IEC 60947-7-4:2019-01
Result	Test passed
Requirement temperature-rise test	The sum of ambient temperature and temperature rise of the PCB terminal block shall not exceed the upper limiting temperature.
Conductor cross section/test current/temperature rise	2.5 mm <sup>2</sup> / 24 A / 40.2 K
Conductor cross section/test current/temperature rise	4 mm <sup>2</sup> / 32 A / 53.6 K

## 1190307 LPT 2,5/10-5,0

## 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	2.5 mm <sup>2</sup>

Type: LPT 2,5/...-5,0



**1190307 LPT 2,5/10-5,0****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)	
Finger protection (movable test finger)	guaranteed
Note	unenclosed basic insulation - protected against finger contact with IP20 test finger in acc. with IEC 60529 when connected, above the PCB

**1190307 LPT 2,5/10-5,0****16 Commercial Data**

Order No.	1190307
Type	LPT 2,5/10-5,0
Pieces per package	50
Net weight	2.22 g
GTIN	4063151239664
	Information that applies locally, see link on page 1
	Information that applies locally, see link on page 1