

PCB terminal block - SPTA 16/ 5-10,0-ZB - 1819231

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)




PCB terminal block, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², pitch: 10 mm, number of positions: 5, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 60 °, color: green, Pin layout: Zigzag pinning W, Solder pin [P]: 4.1 mm

Your advantages

- ✓ Time saving push-in connection, tools not required
- ✓ Defined contact force ensures that contact remains stable over the long term
- ✓ Clamping space opened by means of fixed screwdriver enables convenient conductor connection
- ✓ Unrestricted 600-V-UL approval thanks to compact zig-zag pinning
- ✓ Angled connection enables multi-row arrangement on the PCB



Key Commercial Data

| | |
|--------------|---|
| Packing unit | 50 pc |
| GTIN |  4 046356 788267 |
| GTIN | 4046356788267 |

Technical data

Item properties

| | |
|---------------------------|---------------------------|
| Brief article description | PCB terminal block |
| Range of articles | SPTA 16/ |
| Pitch | 10 mm |
| Number of positions | 5 |
| Connection method | Push-in spring connection |
| Mounting type | Wave soldering |
| Pin layout | Zigzag pinning W |
| Number of levels | 1 |
| Number of connections | 5 |
| Number of potentials | 5 |

Electrical parameters

PCB terminal block - SPTA 16/ 5-10,0-ZB - 1819231

Technical data

Electrical parameters

| | |
|-----------------------------|--------|
| Nominal current | 76 A |
| Nom. voltage | 1000 V |
| Rated voltage | 1000 V |
| Rated voltage (III/2) | 1000 V |
| Rated voltage (II/2) | 1000 V |
| Rated surge voltage (III/3) | 8 kV |
| Rated surge voltage (III/2) | 8 kV |
| Rated surge voltage (II/2) | 6 kV |

Connection capacity

| | |
|---|---|
| Connection method | Push-in spring connection |
| Conductor cross section solid | 0.75 mm ² ... 10 mm ² |
| Conductor cross section flexible | 0.75 mm ² ... 16 mm ² |
| Conductor cross section AWG / kcmil | 18 ... 4 |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.75 mm ² ... 16 mm ² |
| Conductor cross section, flexible, with ferrule, with plastic sleeve | 0.75 mm ² ... 10 mm ² |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.75 mm ² ... 4 mm ² |
| Stripping length | 18 mm |

Material data - contact

| | |
|--|---|
| Note | WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/ JEDEC JESD 201 |
| Contact material | Cu alloy |
| Surface characteristics | Tin-plated |
| Metal surface terminal point (top layer) | Tin (10 - 16 µm Sn) |
| Metal surface soldering area (top layer) | Tin (10 - 16 µm Sn) |

Material data - housing

| | |
|---|--------------|
| Housing color | green (6021) |
| Insulating material | PA |
| Insulating material group | I |
| CTI according to IEC 60112 | 600 |
| Flammability rating according to UL 94 | 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 |

Dimensions for the product

| | |
|-----------------------------|---------|
| Length [l] | 32.7 mm |
| Width [w] | 50 mm |
| Height [h] | 42.2 mm |
| Pitch | 10 mm |
| Height (without solder pin) | 38.1 mm |

PCB terminal block - SPTA 16/ 5-10,0-ZB - 1819231

Technical data

Dimensions for the product

| | |
|----------------|------------|
| Solder pin [P] | 4.1 mm |
| Pin spacing | 15 mm |
| Pin dimensions | 1.2 x 1 mm |

Dimensions for PCB design

| | |
|---------------|--------|
| Hole diameter | 1.7 mm |
| Pin spacing | 15 mm |

Packaging information

| | |
|----------------------------|---------------------|
| Type of packaging | packed in cardboard |
| Pieces per package | 50 |
| Denomination packing units | Pcs. |

Ambient conditions

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

Termination and connection method

| | |
|--|---|
| Conductor connection test | The stripped-off ends of the largest conductor can be completely inserted in the opening of the terminal point without using excessive force. |
| Test result | Test passed |
| Test – repeated connection and release | IEC 60999-1:1999-11 |
| | Test passed |
| Test for conductor damage and slackening | IEC 60999-1:1999-11 |
| | Test passed |

Pull-out test

| | |
|--|--|
| Pull-out test | IEC 60999-1:1999-11 |
| | Test passed |
| Conductor cross section / conductor type / tensile force | 0.75 mm ² / solid / > 30 N |
| | 16 mm ² / stranded / > 100 N |
| | 0.75 mm ² / flexible / > 30 N |
| | 16 mm ² / flexible / > 100 N |

Mechanical tests according to standard

| | |
|--------------------|---------------|
| Test specification | IEC 60947-7-4 |
|--------------------|---------------|

Electrical tests

| | |
|-----------------------------|--------------------|
| Rated current | 76 A |
| Conductor cross section | 16 mm ² |
| Rated voltage (III/2) | 1000 V |
| Rated surge voltage (III/2) | 8 kV |

PCB terminal block - SPTA 16/ 5-10,0-ZB - 1819231

Technical data

Air clearances and creepage distances

| | |
|---|---------------------|
| Clearances and creepage distances | IEC 60664-1:2007-04 |
| Specification | IEC 60664-1:2007-04 |
| Minimum clearance - inhomogeneous field (III/3) | 8 mm |
| Minimum clearance - inhomogeneous field (III/2) | 8 mm |
| Minimum clearance - inhomogeneous field (II/2) | 5.5 mm |
| Minimum creepage distance value (III/3) | 12.5 mm |
| Minimum creepage distance value (III/2) | 8 mm |
| Minimum creepage distance value (II/2) | 5.5 mm |

Temperature-rise test

| | |
|-----------------------------------|--|
| Specification | IEC 60947-7-4:2013-08 |
| 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. |

Current carrying capacity / derating curves

| | |
|---------------------|---|
| Caption | Type: SPTA 16/...-10,0(-ZB) |
| Specification | IEC 60947-7-4:2013-08 |
| Number of positions | 4 |
| Reduction factor | 1 |
| Note | Representation based on IEC 60512-5-2:2002-02 |

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 |

Insulation resistance

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

Glow-wire test

| | |
|------------------|------------------------|
| Specification | IEC 60695-2-10:2000-10 |
| Result | Test passed |
| Temperature | 850 °C |
| Time of exposure | 5 s |

Alternating climate test

| | |
|--------|-------------|
| Result | Test passed |
|--------|-------------|

PCB terminal block - SPTA 16/ 5-10,0-ZB - 1819231

Technical data

Alternating climate test

| | |
|------------------|-------------------|
| Specification | ISO 6988:1985-02 |
| Corrosive stress | KFW 0.2 S/1 cycle |

Standards and Regulations

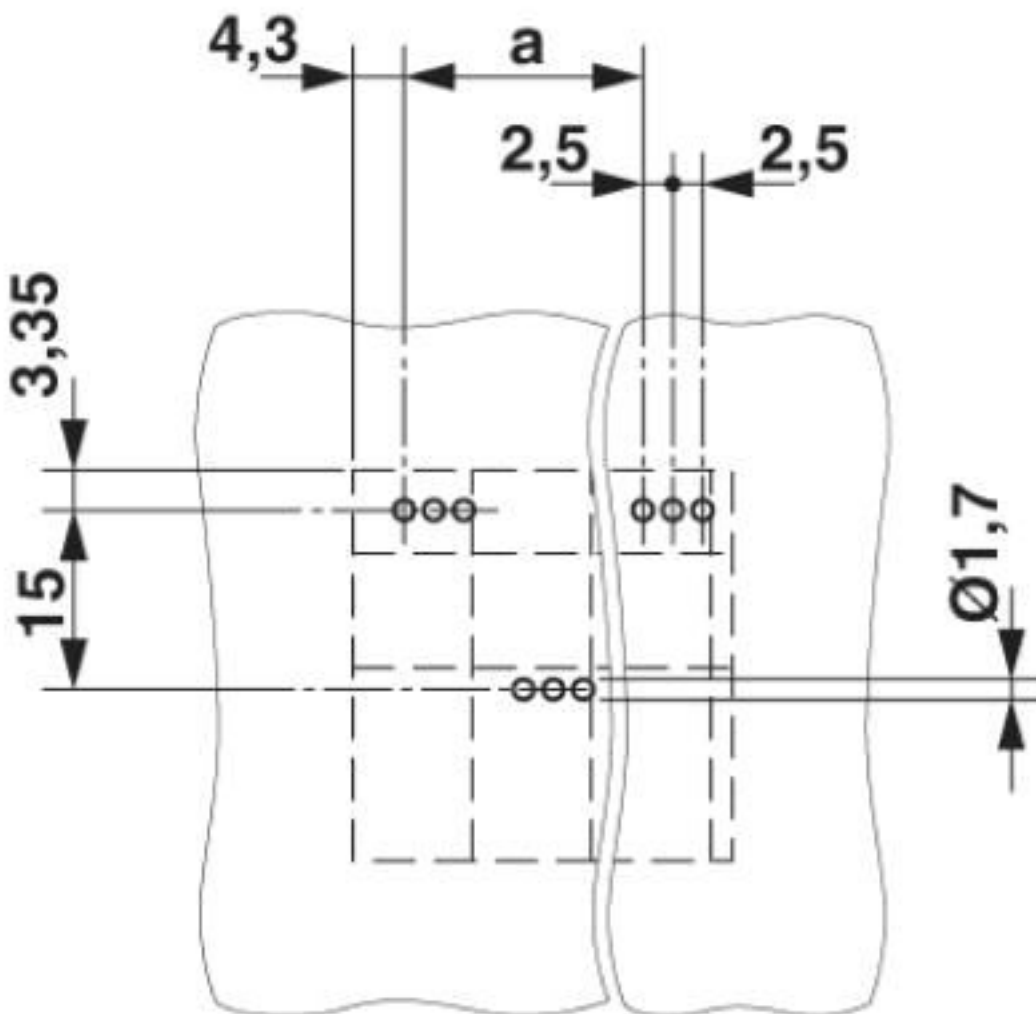
| | |
|--|--------|
| Connection in acc. with standard | EN-VDE |
| Flammability rating according to UL 94 | V0 |

Environmental Product Compliance

| | |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
| | No hazardous substances above threshold values |

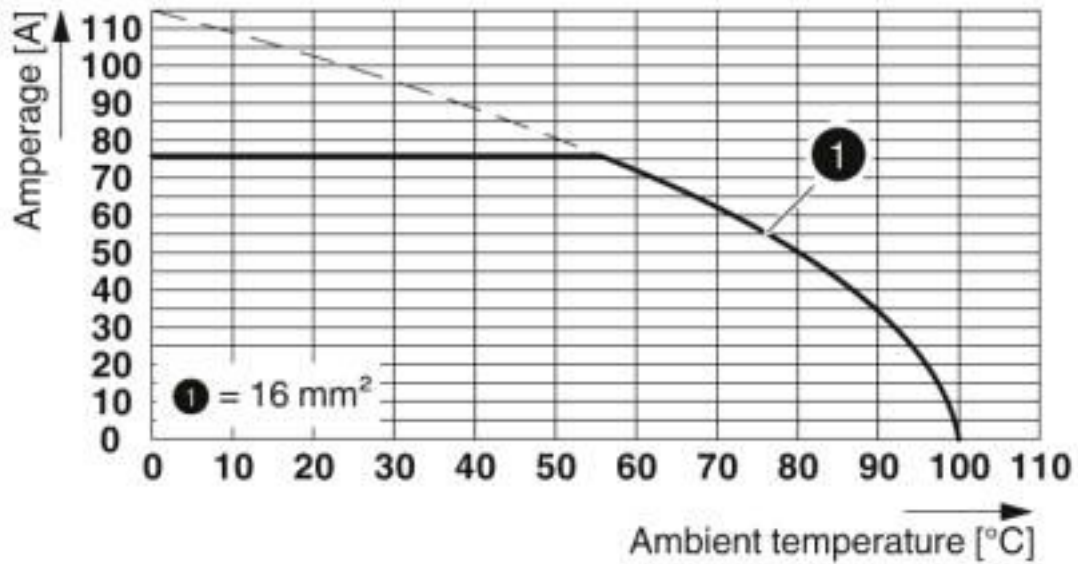
Drawings

Drilling diagram



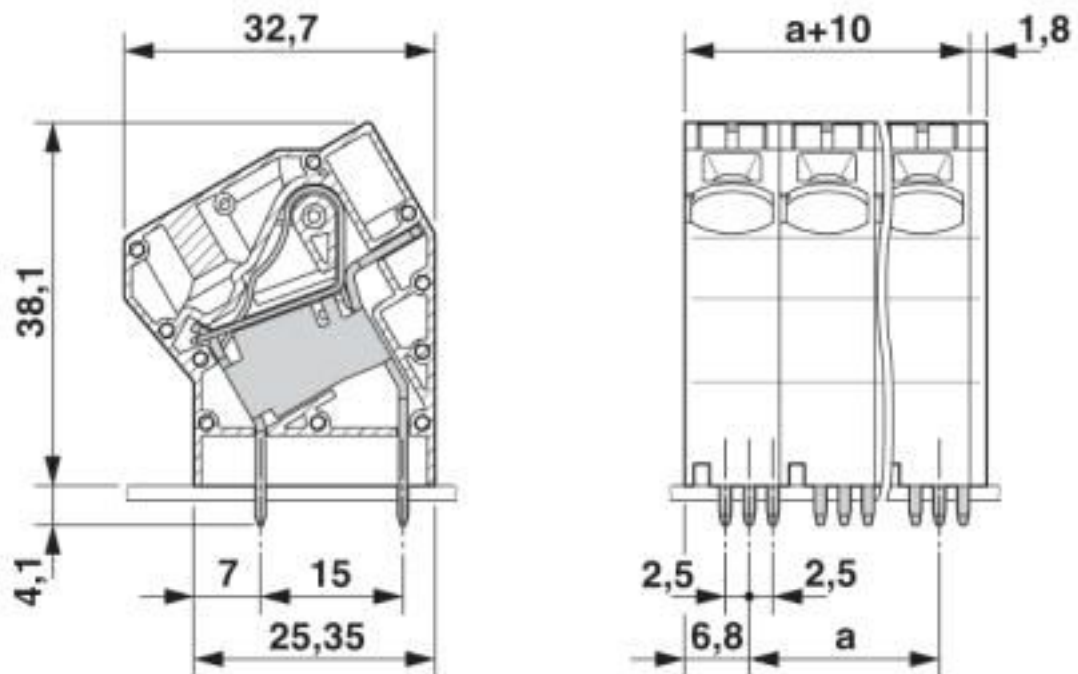
PCB terminal block - SPTA 16/ 5-10,0-ZB - 1819231

Diagram



Type: SPTA 16/ 4-10,0-ZB
Tested in accordance with DIN EN 60512-5-2:2003-01
Reduction factor = 1
Number of positions: 4

Dimensional drawing



PCB terminal block - SPTA 16/ 5-10,0-ZB - 1819231

Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27440401 |
| eCl@ss 4.0 | 27141100 |
| eCl@ss 4.1 | 27141100 |
| eCl@ss 5.0 | 27141100 |
| eCl@ss 5.1 | 27261100 |
| eCl@ss 6.0 | 27261100 |
| eCl@ss 7.0 | 27440401 |
| eCl@ss 8.0 | 27440401 |
| eCl@ss 9.0 | 27440401 |

ETIM

| | |
|----------|----------|
| ETIM 3.0 | EC001121 |
| ETIM 4.0 | EC002637 |
| ETIM 5.0 | EC002643 |
| ETIM 6.0 | EC002643 |
| ETIM 7.0 | EC002643 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 30211801 |
| UNSPSC 7.0901 | 39121432 |
| UNSPSC 11 | 39121432 |
| UNSPSC 12.01 | 39121432 |
| UNSPSC 13.2 | 39121432 |
| UNSPSC 18.0 | 39121432 |
| UNSPSC 19.0 | 39121432 |
| UNSPSC 20.0 | 39121432 |
| UNSPSC 21.0 | 39121432 |

Approvals

Approvals

Approvals

IECEE CB Scheme / VDE Zeichengenehmigung / EAC / cULus Recognized

Ex Approvals

Approval details

PCB terminal block - SPTA 16/ 5-10,0-ZB - 1819231

Approvals

| | | | |
|----------------------------|---------|---|--------------|
| IECEE CB Scheme | | http://www.iecee.org/ | CB DE1-61015 |
| Nominal voltage UN | 1000 V | | |
| Nominal current IN | 76 A | | |
| mm ² /AWG/kcmil | 0.75-16 | | |

| | | | |
|----------------------------|---------|---|----------|
| VDE Zeichengenehmigung | | http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx | 40041641 |
| Nominal voltage UN | 1000 V | | |
| Nominal current IN | 76 A | | |
| mm ² /AWG/kcmil | 0.75-16 | | |

| | | | |
|-----|--|--|---------|
| EAC | | | B.01687 |
|-----|--|--|---------|

| | | | |
|----------------------------|-------|---|-----------------|
| cULus Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | E60425-20061129 |
| | B | C | |
| Nominal voltage UN | 600 V | 600 V | |
| Nominal current IN | 51 A | 51 A | |
| mm ² /AWG/kcmil | 18-4 | 18-4 | |

Accessories

Accessories

Bridge

Plug-in bridge - FBSK 2-10/ZFKDS 10 - 1986644



Fixed bridge, fully insulated, pitch: 10 mm, no. of positions: 2

PCB terminal block - SPTA 16/ 5-10,0-ZB - 1819231

Accessories

Plug-in bridge - FBSK 3-10/ZFKDS 10 - 1986657



Fixed bridge, fully insulated, pitch: 10 mm, no. of positions: 3

Plug-in bridge - FBSK 4-10/ZFKDS 10 - 1986660



Fixed bridge, fully insulated, pitch: 10 mm, no. of positions: 4

Crimping tool

Crimping pliers - CRIMPFOX 6 - 1212034



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm² ... 6.0 mm², lateral entry, trapezoidal crimp

Crimping pliers - CRIMPFOX 16 S - 1207983



Crimping pliers for ferrules up to 16 mm²

Screwdriver tools

Screwdriver - SZF 2-0,8X4,0 - 1204520



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.8 x 4.0 x 100 mm, 2-component grip, with non-slip grip

Phoenix Contact 2020 © - all rights reserved
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Fixed Terminal Blocks](#) category:

Click to view products by [Phoenix Contact](#) manufacturer:

Other Similar products are found below :

[MBE-1512](#) [MBE-154](#) [MBE-156](#) [MBES-153](#) [MBES-156](#) [MH-2512](#) [MHE-132](#) [MHE-163](#) [MI-254 \(35\)](#) [MI-272](#) [880507](#) [MPT-275](#)
[15602-04-08-21](#) [BA311TU](#) [BA411SU](#) [MV-152](#) [MV-252-D](#) [MV-253/NCNOC](#) [MV-254-D](#) [MV-255](#) [MV-462](#) [MV-493](#) [MVE-252](#) [MVE-253](#)
[MVE-273](#) [MVEB-153](#) [1700096](#) [1705142](#) [1712417](#) [1713020](#) [1713088](#) [1745195](#) [1760594](#) [1776118-2](#) [1790852](#) [1-796689-8](#) [1-796692-6](#)
[1800001](#) [1800114](#) [1995279](#) [20020314-C121B01LF](#) [CB2-12](#) [KP03215000J0G](#) [KP04215000J0G](#) [S451](#) [282802-2](#) [29.007](#) [29.116](#) [30.103](#)
[30.106](#)