

PCB terminal block - SPTAF 1/16-5,0-LL - 1864574

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: 13.5 A, rated voltage (III/2): 320 V, nominal cross section: 1 mm², pitch: 5 mm, number of positions: 16, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 45 °, color: green, Pin layout: Linear double pinning, Solder pin [P]: 2.6 mm



The figure shows a 10-position version of the product

Your advantages

- Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- Finger-operated and fixable release button for very convenient operation
- Small component size for applications where space is at a premium
- Quick and convenient testing using integrated test option



Key Commercial Data

| | |
|--------------|---------------|
| Packing unit | 20 pc |
| GTIN | |
| GTIN | 4055626246253 |

Technical data

Item properties

| | |
|---------------------------|---------------------------|
| Brief article description | PCB terminal block |
| Range of articles | SPTAF 1/..-LL |
| Pitch | 5 mm |
| Number of positions | 16 |
| Connection method | Push-in spring connection |
| Mounting type | Wave soldering |
| Pin layout | Linear double pinning |
| Number of levels | 1 |
| Number of connections | 16 |
| Number of potentials | 16 |

PCB terminal block - SPTAF 1/16-5,0-LL - 1864574

Technical data

Electrical parameters

| | |
|-----------------------------|--------|
| Nominal current | 13.5 A |
| Nom. voltage | 320 V |
| Rated voltage | 250 V |
| Rated voltage (III/2) | 320 V |
| Rated voltage (II/2) | 630 V |
| Rated surge voltage (III/3) | 4 kV |
| Rated surge voltage (III/2) | 4 kV |
| Rated surge voltage (II/2) | 4 kV |

Connection capacity

| | |
|---|--|
| Connection method | Push-in spring connection |
| Conductor cross section solid | 0.2 mm ² ... 0.75 mm ² (When connecting and possibly adjusting a solid conductor of 1 mm ² , the mechanical lateral forces, which can affect the terminal block, have to be absorbed by lateral support.) |
| Conductor cross section flexible | 0.2 mm ² ... 1 mm ² |
| Conductor cross section AWG / kcmil | 24 ... 18 |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.25 mm ² ... 0.5 mm ² |
| Conductor cross section, flexible, with ferrule, with plastic sleeve | 0.25 mm ² ... 0.5 mm ² |
| Stripping length | 8 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 | hot-dip tin-plated |
| Metal surface terminal point (top layer) | Tin (2 - 4 µm Sn) |
| Metal surface soldering area (top layer) | Tin (2 - 4 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 |

Dimensions for the product

| | |
|-----------------------------|---------------|
| Length [l] | 11 mm |
| Width [w] | 80 mm |
| Height [h] | 13.5 mm |
| Pitch | 5 mm |
| Height (without solder pin) | 10.9 mm |
| Solder pin [P] | 2.6 mm |
| Pin spacing | 5 mm |
| Pin dimensions | 0.75 x 0.3 mm |

PCB terminal block - SPTAF 1/16-5,0-LL - 1864574

Technical data

Dimensions for PCB design

| | |
|---------------|--------|
| Hole diameter | 1.1 mm |
| Pin spacing | 5 mm |

Packaging information

| | |
|----------------------------|---------------------|
| Type of packaging | packed in cardboard |
| Pieces per package | 20 |
| Denomination packing units | Pcs. |

General product information

| | |
|--------------|--|
| Type of note | Note on application |
| Note | Maximum permissible outer diameter of the wire insulation ≤ 3 mm |

Processing notes

| | |
|---------------|----------------------------------|
| Process | Wave soldering |
| Specification | Following IEC 61760-1:2006-04 |
| | Following IEC 60068-2-54:2006-04 |

Ambient conditions

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

Termination and connection method

| | |
|--|---------------------|
| 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 | 0.2 mm ² / solid / > 10 N |
| | 0.25 mm ² / flexible / > 10 N |
| | 1 mm ² / solid / > 35 N |
| | 1 mm ² / flexible / > 35 N |

Mechanical tests according to standard

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

Electrical tests

| | |
|-----------------------------|-------------------|
| Rated current | 13.5 A |
| Conductor cross section | 1 mm ² |
| Rated voltage (III/2) | 320 V |
| Rated surge voltage (III/2) | 4 kV |

Air clearances and creepage distances

| | |
|-----------------------------------|----------------------------------|
| Clearances and creepage distances | IEC 60947-1:2007-06 + A1:2010-12 |
| Specification | IEC 60947-1:2007-06 + A1:2010-12 |

PCB terminal block - SPTAF 1/16-5,0-LL - 1864574

Technical data

Air clearances and creepage distances

| | |
|---|--------|
| Minimum clearance - inhomogeneous field (III/3) | 3 mm |
| Minimum clearance - inhomogeneous field (III/2) | 3 mm |
| Minimum clearance - inhomogeneous field (II/2) | 3 mm |
| Minimum creepage distance value (III/3) | 3.2 mm |
| Minimum creepage distance value (III/2) | 1.6 mm |
| Minimum creepage distance value (II/2) | 3.2 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: SPTAF 1/...-5,0-LL |
| 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 | > 0,4 TΩ |

Glow-wire test

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

Alternating climate test

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

PCB terminal block - SPTAF 1/16-5,0-LL - 1864574

Technical data

Standards and Regulations

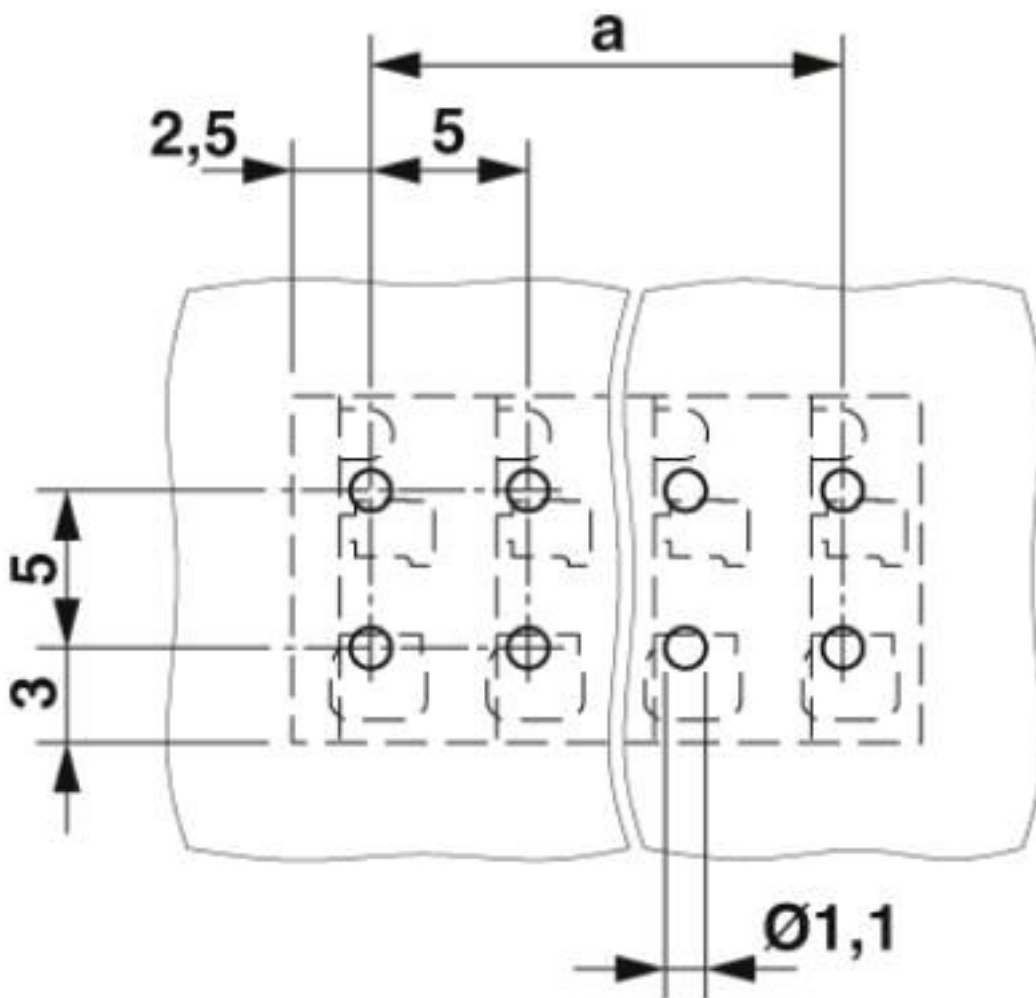
| | |
|--|--------|
| Connection in acc. with standard | EN-VDE |
| Flammability rating according to UL 94 | V0 |

Environmental Product Compliance

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

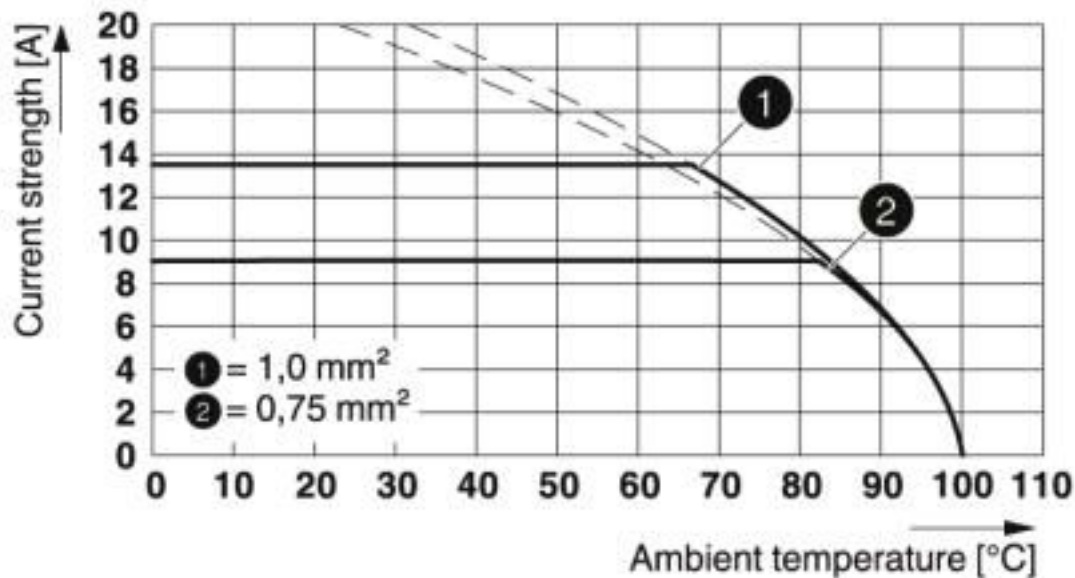
Drawings

Drilling diagram



PCB terminal block - SPTAF 1/16-5,0-LL - 1864574

Diagram



Type: SPTAF 1/...-5,0-LL

Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27440401 |
| eCl@ss 5.0 | 27260701 |
| 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 5.0 | EC002643 |
| ETIM 6.0 | EC002643 |
| ETIM 7.0 | EC002643 |

UNSPSC

| | |
|-------------|----------|
| UNSPSC 13.2 | 39121432 |
| UNSPSC 18.0 | 39121432 |
| UNSPSC 19.0 | 39121432 |
| UNSPSC 20.0 | 39121432 |
| UNSPSC 21.0 | 39121432 |

Approvals

Approvals

PCB terminal block - SPTAF 1/16-5,0-LL - 1864574

Approvals

Approvals

IECEE CB Scheme / VDE Zeichengenehmigung / cULus Recognized / EAC

Ex Approvals

Approval details

| | | | |
|----------------------------|--|---|-----------|
| IECEE CB Scheme | | http://www.iecee.org/ | DE1-61914 |
| Nominal voltage UN | | 320 V | |
| Nominal current IN | | 13.5 A | |
| mm ² /AWG/kcmil | | 0.2-1 | |

| | | | |
|----------------------------|--|---|----------|
| VDE Zeichengenehmigung | | http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx | 40047107 |
| Nominal voltage UN | | 320 V | |
| Nominal current IN | | 13.5 A | |
| mm ² /AWG/kcmil | | 0.2-1 | |

| | | | |
|----------------------------|--|---|-----------------|
| cULus Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | E60425-20061129 |
| Nominal voltage UN | | B 300 V | D 300 V |
| Nominal current IN | | 7 A | 7 A |
| mm ² /AWG/kcmil | | 24-18 | 24-18 |

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

Accessories

Accessories

Screwdriver tools

PCB terminal block - SPTAF 1/16-5,0-LL - 1864574

Accessories

Screwdriver - SZF 0-0,4X2,5 - 1204504



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.4 x 2.5 x 75 mm, 2-component grip, with non-slip grip

Screwdriver - SZF 1-0,6X3,5 - 1204517



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 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
Flachsmarktstr. 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](#)