

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

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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	1 pc
Minimum order quantity	50 pc
GTIN	 4 046356 788267
GTIN	4046356788267
Weight per Piece (excluding packing)	49.200 g
Custom tariff number	85369010
Country of origin	Germany

Technical data

Item properties

Brief article description	PCB terminal block
Range of articles	SPTA 16/
Pitch	10 mm
Number of positions	5

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Technical data

Item properties

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

Nom. voltage	1000 V
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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 same cross section, stranded, with TWIN ferrules 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

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

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Dimensions for the product

Height [h]	42.2 mm
Pitch	10 mm
Height (without solder pin)	38.1 mm
Solder pin [P]	4.1 mm
Pin spacing	15 mm
Pin dimensions	1.2 x 1 mm
Dimension a	40 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

Electrical tests

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Technical data

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

Air clearances and creepage distances

Clearances and creepage distances	IEC 60664-1:2007-04
Specification	IEC 60664-1:2007-04
Rated insulation voltage (III/3)	1000 V
Rated insulation voltage (III/2)	1000 V
Rated insulation 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
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)	5 mm
Minimum creepage distance value (II/2)	5 mm

Current carrying capacity / derating curves

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)
Test duration per axis	2.5 h

Standards and Regulations

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

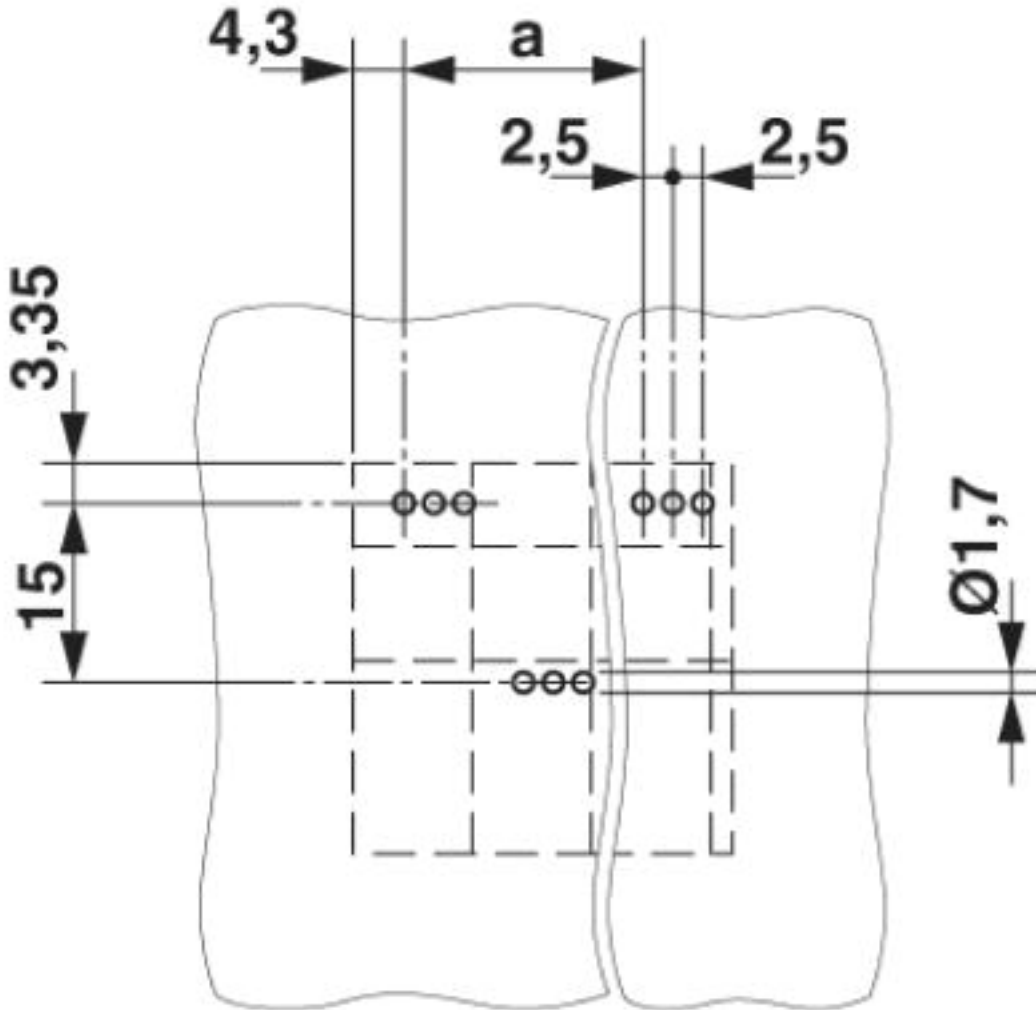
Environmental Product Compliance

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

Drawings

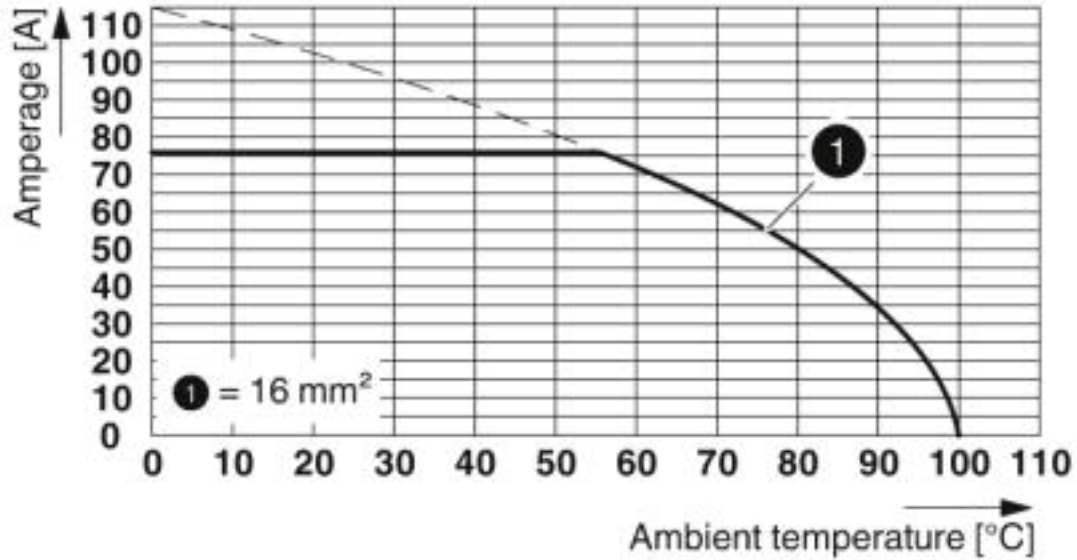
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Drilling diagram



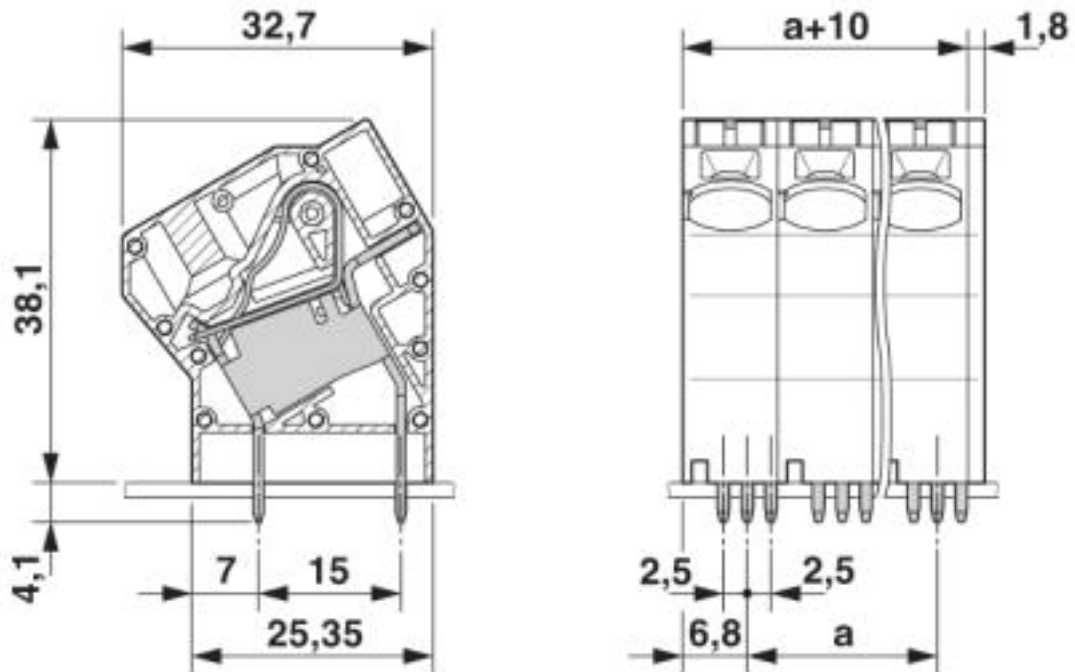
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Diagram



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



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Classifications

eCl@ss

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

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Approvals

Approval details

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.01742
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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

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Accessories

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



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

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

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Accessories

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