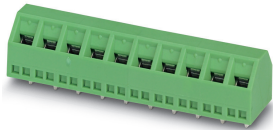


## PCB terminal block - SMKDSN 1,5/13 - 1869172

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The figure shows a 10-position version of the product


PCB terminal block, nominal current: 13.5 A, rated voltage (III/2): 400 V, nominal cross section: 1.5 mm<sup>2</sup>, number of potentials: 13, Number of rows: 1, Number of positions per row: 13, product range: SMKDSN 1,5, pitch: 5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, mounting: Wave soldering, conductor/PCB connection direction: 45 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 3.5 mm, type of packaging: packed in cardboard

### Your advantages

- ✓ Well-known connection principle allows worldwide use
- ✓ Low temperature rise, thanks to maximum contact force
- ✓ Allows connection of two conductors
- ✓ Angled connection enables multi-row arrangement on the PCB
- ✓ Extremely small design for the respective conductor cross section



### Key Commercial Data

Packing unit	1 pc
Minimum order quantity	50 pc
GTIN	 4 017918 149147
GTIN	4017918149147
Weight per Piece (excluding packing)	14.670 g
Custom tariff number	85369010
Country of origin	Germany

### Technical data

#### Item properties

Brief article description	PCB terminal block
Range of articles	SMKDSN 1,5

# PCB terminal block - SMKDSN 1,5/13 - 1869172

## Technical data

### Item properties

Pitch	5 mm
Number of positions	13
Drive form screw head	Slotted (L)
Screw thread	M3
Mounting type	Wave soldering
Pin layout	Linear pinning
Number of levels	1
Number of connections	13
Number of potentials	13

### Electrical parameters

Nominal current	13.5 A
Nom. voltage	400 V
Rated voltage (III/3)	250 V
Rated voltage (III/2)	400 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	Screw connection with tension sleeve
pluggable	no
Conductor cross section solid	0.14 mm² ... 1.5 mm²
Conductor cross section flexible	0.14 mm² ... 1.5 mm²
Conductor cross section AWG / kcmil	26 ... 16
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 1.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 1.5 mm²
2 conductors with same cross section, solid	0.14 mm² ... 0.75 mm²
2 conductors with same cross section, flexible	0.14 mm² ... 0.75 mm²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm² ... 0.5 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² ... 1 mm²
Stripping length	6 mm
Torque	0.5 Nm ... 0.6 Nm

### Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/ JEDEC JESD 201
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# PCB terminal block - SMKDSN 1,5/13 - 1869172

## Technical data

### Material data - contact

Contact material	Cu alloy
Surface characteristics	Tin-plated
Metal surface terminal point (top layer)	Tin (5 - 7 µm Sn)
Metal surface terminal point (middle layer)	Nickel (2 - 3 µm Ni)
Metal surface soldering area (top layer)	Tin (5 - 7 µm Sn)
Metal surface soldering area (middle layer)	Nickel (2 - 3 µm Ni)

### 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

Caption	Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center
Length [ l ]	16 mm
Width [ w ]	66 mm
Height [ h ]	14.5 mm
Pitch	5 mm
Height (without solder pin)	11 mm
Solder pin [P]	3.5 mm
Pin dimensions	0.5 x 1 mm

### Dimensions for PCB design

Hole diameter	1.3 mm
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### Packaging information

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

### General product information

Type of note	Note on application
Note	For safe conductor connection, always adhere to a defined tightening torque. Particularly in the case of PCB terminal blocks with two or three positions, the individual solder pin for each contact point cannot

# PCB terminal block - SMKDSN 1,5/13 - 1869172

## Technical data

### General product information

	compensate for this. That is why the terminal blocks must be supported during conductor connection (held with one hand, support on the housing).
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### 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

Test for conductor damage and slackening	IEC 60998-1:1990-04
	Test passed

### Pull-out test

Pull-out test	IEC 60998-1:1990-04
Conductor cross section / conductor type / tensile force	0.14 mm <sup>2</sup> / solid / > 10 N
	0.14 mm <sup>2</sup> / flexible / > 10 N
	1.5 mm <sup>2</sup> / solid / > 40 N
	1.5 mm <sup>2</sup> / flexible / > 40 N

### Mechanical tests according to standard

Test specification	IEC 60998-1 (in parts)
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### Electrical tests

Rated current	13.5 A
Conductor cross section	1.5 mm <sup>2</sup>
Rated voltage (III/2)	400 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 + A2:2014-09
Specification	IEC 60947-1:2007-06 + A1:2010-12 + A2:2014-09
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)	3 mm
Minimum creepage distance value (II/2)	3.2 mm

### Temperature-rise test

Specification	IEC 60998-1:1990-04
Requirement temperature-rise test	Increase in temperature ≤ 45 K

## PCB terminal block - SMKDSN 1,5/13 - 1869172

### Technical data

#### Current carrying capacity / derating curves

Caption	Type: SMKDSN 1,5/...(-5,08) Tested according to DIN EN 60512-5-2:2003-01 Reduction factor = 1 Number of positions: 5
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#### Vibration test

Specification	IEC 60068-2-6:1995-03
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 60998-1:1990-04
Result	Test passed
Insulation resistance, neighboring positions	10 <sup>9</sup> Ω

#### Glow-wire test

Specification	IEC 60998-1:1990-04
Temperature	850 °C
Time of exposure	5 s

#### Mechanical strength/tumbling barrel test

Specification	IEC 60998-1:1990-04
Number of drop cycles	50

#### Standards and Regulations

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

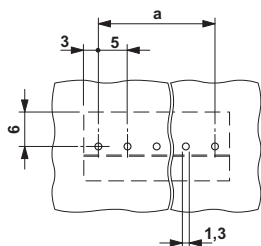
#### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

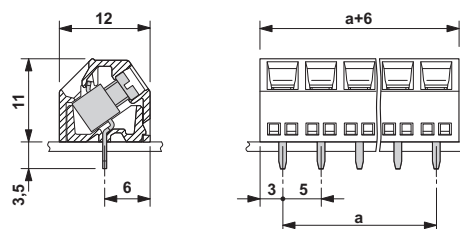
### Drawings

## PCB terminal block - SMKDSN 1,5/13 - 1869172

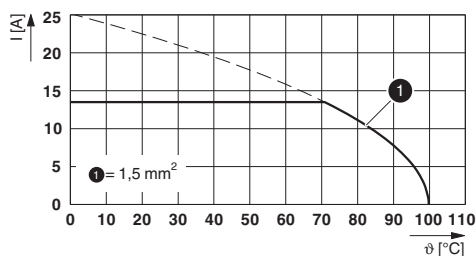
Drilling diagram



Dimensional drawing



Diagram



Type: SMKDSN 1,5/...(-5,08)

Tested according to DIN EN 60512-5-2:2003-01

Reduction factor = 1

Number of positions: 5

### Classifications

#### eCl@ss

eCl@ss 10.0.1	27440401
eCl@ss 11.0	27460101
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 9.0	27440401

#### ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002643
ETIM 6.0	EC002643
ETIM 7.0	EC002643

## PCB terminal block - SMKDSN 1,5/13 - 1869172

### Classifications

#### 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

CSA / SEV / EAC / cULus Recognized / IECCEB Scheme

#### Ex Approvals


#### Approval details


CSA		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	13631
	B	D	
Nominal voltage UN	150 V	300 V	
Nominal current IN	10 A	10 A	
mm²/AWG/kcmil	28-14	28-14	


SEV		<a href="https://www.eurofins.ch/de/">https://www.eurofins.ch/de/</a>	IK-4486-A1
Nominal voltage UN	250 V		
Nominal current IN	13.5 A		
mm²/AWG/kcmil	1.5		

## PCB terminal block - SMKDSN 1,5/13 - 1869172

### Approvals

EAC		B.01687
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cULus Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	E60425-19770427
	B	D	
Nominal voltage UN	300 V	300 V	
Nominal current IN	10 A	10 A	
mm²/AWG/kcmil	30-14	30-14	

IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	CH-10724-A1
Nominal voltage UN	250 V		
Nominal current IN	13.5 A		
mm²/AWG/kcmil	1.5		

### Accessories

#### Accessories

##### Labeled terminal marker

Marker card - SK 5/3,8:FORTL.ZAHLEN - 0804183



Marker card, Card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... (99)100, mounting type: adhesive, for terminal block width: 5 mm, lettering field size: 5 x 3.8 mm

#### Marker pen

Marker pen - B-STIFT - 1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm



## PCB terminal block - SMKDSN 1,5/13 - 1869172

### Accessories

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#### Screwdriver tools

Screwdriver - SZS 0,6X3,5 - 1205053



Actuation tool, for ST terminal blocks, insulated, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

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#### Terminal marking

Marker card - SK 5/3,8:UNBEDRUCKT - 0805409



Marker card, Card, white, unlabeled, can be labeled with: Marker pen, mounting type: adhesive, for terminal block width: 5 mm, lettering field size: 5 x 3.8 mm