

# PCB terminal block - MKDS 1/ 9-3,5 PA1,3,5,7,9 - 1701930

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PCB terminal block, nominal current: 13.5 A, nom. voltage: 200 V, pitch: 3.5 mm, number of positions: 9, connection method: Screw connection with tension sleeve, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green



The figure shows a 10-position version of the product

## Your advantages

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



## Key Commercial Data

Packing unit	50 pc
GTIN	
GTIN	4046356566957

## Technical data

### Item properties

Brief article description	PCB terminal block
Range of articles	MKDS 1
Pitch	3.5 mm
Number of positions	9
Connection method	Screw connection with tension sleeve
Drive form screw head	Slotted (L)
Screw thread	M2
Mounting type	Wave soldering
Pin layout	Linear pinning
Number of levels	1

### Electrical parameters

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## Technical data

### Electrical parameters

Rated current	13.5 A
Rated insulation voltage (III/2)	200 V
Rated surge voltage (III/2)	2.5 kV

### Connection capacity

Conductor cross section solid	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section flexible	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section AWG / kcmil	26 ... 16
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 0.5 mm <sup>2</sup>
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 0.5 mm <sup>2</sup>
2 conductors with same cross section, solid	0.14 mm <sup>2</sup> ... 0.5 mm <sup>2</sup>
2 conductors with same cross section, flexible	0.14 mm <sup>2</sup> ... 0.34 mm <sup>2</sup>
Stripping length	5 mm
Torque	0.22 Nm ... 0.25 Nm

### Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/ JEDEC JESD 201
Contact material	Cu alloy
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

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 ]	7.3 mm
Width [ w ]	32 mm
Height [ h ]	12 mm
Pitch	3.5 mm
Height (without solder pin)	8.5 mm
Solder pin [P]	3.5 mm
Pin dimensions	0.5 x 0.9 mm
Dimension a	28 mm

### Dimensions for PCB design

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## Technical data

### Dimensions for PCB design

Hole diameter	1.1 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 compensate for this. That is why the terminal blocks must be supported during conductor connection (held with one hand, support on the housing).

### Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C

### Electrical tests

Rated current	13.5 A
Rated insulation voltage (III/2)	200 V
Rated surge voltage (III/2)	2.5 kV

### Air clearances and creepage distances

Insulating material group	I
Voltage	160 V
Rated insulation voltage (III/3)	160 V
Rated insulation voltage (III/2)	200 V
Rated insulation voltage (II/2)	400 V
Rated surge voltage (III/3)	2.5 kV
Rated surge voltage (III/2)	2.5 kV
Rated surge voltage (II/2)	2.5 kV

### Standards and Regulations

Connection in acc. with standard	EN-VDE
	CSA

### Environmental Product Compliance

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

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## Approvals


### Approvals


#### Approvals


CSA / IECCEB CB Scheme / SEV / EAC / cULus Recognized


#### 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
		D	B
Nominal voltage UN		300 V	150 V
Nominal current IN		10 A	10 A
mm <sup>2</sup> /AWG/kcmil		28-16	28-16


IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	CH-8225
Nominal voltage UN		125 V	
Nominal current IN		12 A	
mm <sup>2</sup> /AWG/kcmil		1.5	

SEV		<a href="https://www.electrosuisse.ch/de/meta/shop/produktezertifikate.html">https://www.electrosuisse.ch/de/meta/shop/produktezertifikate.html</a>	IK-3542-M1
Nominal voltage UN		125 V	
Nominal current IN		12 A	
mm <sup>2</sup> /AWG/kcmil		1.5	

EAC			B.01742
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### Approvals

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
	D	B
Nominal voltage UN	300 V	300 V
Nominal current IN	10 A	10 A
mm <sup>2</sup> /AWG/kcmil	30-16	30-16

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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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