

PCB terminal block - MKDS 10 HV/10-ZB-10,16 BK - 1745043

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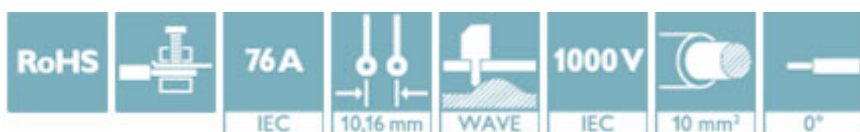


PCB terminal block, nominal current: 76 A, nom. voltage: 1000 V, pitch: 10.16 mm, number of positions: 10, connection method: Screw connection with tension sleeve, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: black

The figure shows a 5-pos. version of the product

Why buy this product

- ✓ Well-known connection principle allows worldwide use
- ✓ Low temperature rise, thanks to maximum contact force
- ✓ Allows connection of two conductors
- ✓ Unrestricted 600-V-UL approval thanks to compact zig-zag pinning
- ✓ Integrated protective guide prevents incorrect insertion of the conductor underneath the tension sleeve



Key Commercial Data

Packing unit	50 STK
GTIN	 4 046356 313438
GTIN	4046356313438

Technical data

Item properties

Brief article description	PCB terminal block
Range of articles	MKDS 10 HV
Pitch	10.16 mm
Number of positions	10
Connection method	Screw connection with tension sleeve
Screw thread	M4
Mounting type	Wave soldering
Pin layout	Zigzag pinning W
Number of levels	1

Electrical parameters

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Technical data

Electrical parameters

Rated current	76 A
Rated insulation voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV

Connection capacity

Conductor cross section solid	0.5 mm ² ... 16 mm ²
Conductor cross section flexible	0.5 mm ² ... 16 mm ²
Conductor cross section AWG / kcmil	20 ... 6
Conductor cross section flexible, with ferrule without plastic sleeve	0.5 mm ² ... 16 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.5 mm ² ... 16 mm ²
2 conductors with same cross section, solid	0.5 mm ² ... 6 mm ²
2 conductors with same cross section, flexible	0.5 mm ² ... 6 mm ²
2 conductors with same cross section, stranded, ferrules without plastic sleeve	0.5 mm ² ... 4 mm ²
2 conductors with same cross section, stranded, with TWIN ferrules with plastic sleeve	0.5 mm ² ... 6 mm ²

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 (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	black (9005)
Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

Dimensions for the product

Caption	Schematic representation – for additional information, see product range drawing in the Download Center
Length [l]	18.7 mm
Width [w]	101.6 mm
Height [h]	35.8 mm
Pitch	10.16 mm
Height (without solder pin)	30.8 mm
Solder pin [P]	5 mm
Pin dimensions	1 x 0.9 mm

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Technical data

Dimensions for the product

Dimension a	91.44 mm
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Dimensions for PCB design

Hole diameter	1.5 mm
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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

Termination and connection method

Connection test	IEC 60998-2-2:2002-12
Test result	Test passed

Pull-out test

Pull-out test	IEC 60998-2-1:2002-12
	Test passed
Conductor cross section / conductor type / tensile force	0.5 mm² solid / stranded 20 N > 0.5 mm² / solid / stranded / > 20 N
	10 mm² flexible 90 N > 10 mm² / flexible / > 90 N
	16 mm² solid 100 N > 16 mm² / solid / > 100 N

Mechanical tests according to standard

Test specification	IEC 60998-2-1 (in parts)
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Electrical tests

Rated current	76 A
Rated insulation voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV

Air clearances and creepage distances

Insulating material group	I
Comparative tracking index (IEC 60112:2003-01)	CTI 600
Voltage	800 V
Rated insulation voltage (III/3)	800 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)	8 kV
Minimum clearance - inhomogeneous field (III/3)	8 mm

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Technical data

Air clearances and creepage distances

Minimum clearance - inhomogeneous field (III/2)	8 mm
Minimum clearance - inhomogeneous field (II/2)	8 mm
Minimum creepage distance value (III/3)	10 mm
Minimum creepage distance value (III/2)	8 mm
Minimum creepage distance value (II/2)	10 mm

Current carrying capacity / derating curves

Specification	IEC 60998-2-1 (in parts)
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Vibration test

Resistance to ageing, to humidity conditions, to ingress of solid objects and to harmful ingress of water	Test passed IEC 60998-1:2002-12 168 h/100°C 48 h/30 °C/92 %
Test result	Test passed
Test specification	IEC 60998-1:2002-12
Dry heat	168 h/100°C
Humid heat	48 h/30 °C/92 %

Resistance to ageing, humidity and penetration of solids

Test result	Test passed
Test specification	IEC 60998-1:2002-12
Dry heat	168 h/100°C
Humid heat	48 h/30 °C/92 %

Standards and Regulations

Connection in acc. with standard	EN-VDE
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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"

Approvals

Approvals

Approvals

SEV / EAC / cULus Recognized / IECEE CB Scheme

Ex Approvals

Approval details

PCB terminal block - MKDS 10 HV/10-ZB-10,16 BK - 1745043

Approvals

SEV		https://www.electrosuisse.ch/en/meta/shop/product-certificates.html	IK-3542-M1
Nominal voltage UN		800 V	
Nominal current IN		76 A	
mm²/AWG/kcmil		10	

EAC		B.01742
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cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-19770427
	B	C	
Nominal voltage UN	600 V	600 V	
Nominal current IN	60 A	60 A	
mm²/AWG/kcmil	20-6	20-6	

IECEE CB Scheme		http://www.iecee.org/	CH-8225
Nominal voltage UN		800 V	
Nominal current IN		76 A	
mm²/AWG/kcmil		10	

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