

PCB terminal block - MKDS 10 HV/ 2-ZB-10,16 - 1709681

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: 76 A, pitch: 10.16 mm, number of positions: 2, connection method: Screw connection with tension sleeve, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green

Your advantages

- ✓ 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 pc
GTIN	 4 046356 073769
GTIN	4046356073769

Technical data

Item properties

Brief article description	PCB terminal block
Range of articles	MKDS 10 HV
Pitch	10.16 mm
Number of positions	2
Connection method	Screw connection with tension sleeve
Screw thread	M4
Mounting type	Wave soldering
Pin layout	Zigzag pinning W
Number of levels	1
Number of connections	2
Number of potentials	2

PCB terminal block - MKDS 10 HV/ 2-ZB-10,16 - 1709681

Technical data

Electrical parameters

Rated current	76 A
---------------	------

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
Stripping length	10 mm
Torque	1.2 Nm ... 1.5 Nm

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

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	Schematic representation – for additional information, see product range drawing in the Download Center
Length [l]	18.7 mm
Width [w]	20.32 mm
Height [h]	35.8 mm
Pitch	10.16 mm
Height (without solder pin)	30.8 mm

PCB terminal block - MKDS 10 HV/ 2-ZB-10,16 - 1709681

Technical data

Dimensions for the product

Solder pin [P]	5 mm
Pin dimensions	1 x 0.9 mm
Dimension a	10.16 mm

Dimensions for PCB design

Hole diameter	1.5 mm
---------------	--------

Packaging information

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

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 (Depending on the current carrying capacity/derating curve)

Termination and connection method

Connection test	IEC 60998-2-2:2002-12
Test result	Test passed
Test for conductor damage and slackening	IEC 60998-1:2002-12
	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 mm ² / solid / flexible / > 20 N
	10 mm ² / flexible / > 90 N
	16 mm ² / solid / > 100 N

Electrical tests

Rated current	76 A
Conductor cross section	16 mm ²

Air clearances and creepage distances

Rated insulation voltage (III/3)	800 V
Minimum clearance - inhomogeneous field (III/3)	8 mm
Minimum clearance - inhomogeneous field (III/2)	8 mm
Minimum clearance - inhomogeneous field (II/2)	8 mm
Minimum creepage distance value (III/3)	10 mm

PCB terminal block - MKDS 10 HV/ 2-ZB-10,16 - 1709681

Technical data

Air clearances and creepage distances

Minimum creepage distance value (III/2)	8 mm
Minimum creepage distance value (II/2)	10 mm

Current carrying capacity / derating curves

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
	CUL
Flammability rating according to UL 94	V0

Environmental Product Compliance

	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


IECEE CB Scheme / SEV / EAC / cULus Recognized


Ex Approvals

Approval details


PCB terminal block - MKDS 10 HV/ 2-ZB-10,16 - 1709681

Approvals

IECEE CB Scheme		http://www.iecee.org/	CH-8225
Nominal voltage UN	800 V		
Nominal current IN	76 A		
mm ² /AWG/kcmil	10		

SEV		https://www.electrosuisse.ch/de/meta/shop/produktezertifikate.html	IK-3542-M1
Nominal voltage UN	800 V		
Nominal current IN	76 A		
mm ² /AWG/kcmil	10		

EAC			B.01742
-----	---	--	---------

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	
mm ² /AWG/kcmil	20-6	20-6	

Phoenix Contact 2019 © - 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>