PCB terminal block - MKDS 1/11-3,81 - 1727104

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)

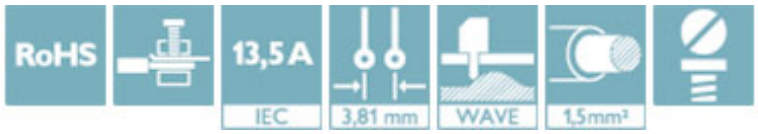


The figure shows a 10-position version of the product

PCB terminal block, nominal current: 13.5 A, rated voltage (III/2): 200 V, Nominal cross section: 1.5 mm², pitch: 3.81 mm, number of positions: 11, connection method: Screw connection with tension sleeve, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 3.5 mm

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
Minimum order quantity	50 pc
GTIN	4 017918 025571
GTIN	4017918025571

Technical data

Item properties

Brief article description	PCB terminal block
Range of articles	MKDS 1
Pitch	3.81 mm
Number of positions	11
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

PCB terminal block - MKDS 1/11-3,81 - 1727104

Technical data

Item properties

Number of connections	11
Number of potentials	11

Electrical parameters

Nom. voltage	200 V

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 ... 0.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 0.5 mm²
2 conductors with same cross section, solid	0.14 mm² ... 0.5 mm²
2 conductors with same cross section, flexible	0.14 mm² ... 0.34 mm²
Cylindrical gauge a x b / diameter	- / 1.6 mm
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
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]	7.3 mm
Width [w]	41.9 mm

PCB terminal block - MKDS 1/11-3,81 - 1727104

Technical data

Dimensions for the product

Height [h]	12 mm
Pitch	3.81 mm
Height (without solder pin)	8.5 mm
Solder pin [P]	3.5 mm
Pin dimensions	0.5 x 0.9 mm
Dimension a	38.1 mm

Dimensions for PCB design

Hole diameter	1.1 mm

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 ... 100 °C (Depending on the current carrying capacity/derating curve)

Termination and connection method

Connection test	IEC 60998-2-2:2002-12
Test for conductor damage and slackening	IEC 60998-2-1:2002-12
	Test passed

Pull-out test

Pull-out test	IEC 60998-2-1:2002-12
	Test passed
Conductor cross section / conductor type / tensile force	0.14 mm² / solid / > 10 N
	0.14 mm² / flexible / > 10 N
	1.5 mm² / solid / > 40 N
	1.5 mm² / flexible / > 40 N

Electrical tests

Rated current	13.5 A
Conductor cross section	1.5 mm²
Rated voltage (III/2)	200 V

PCB terminal block - MKDS 1/11-3,81 - 1727104

Technical data

Electrical tests

Rated surge voltage (III/2)	2.5 kV

Air clearances and creepage distances

Clearances and creepage distances	IEC 60664-1:1992-10 + A1:2000-02 + A2:2002-05
Specification	IEC 60664-1:1992-10 + A1:2000-02 + A2:2002-05
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
Minimum clearance - inhomogeneous field (III/3)	1.5 mm
Minimum clearance - inhomogeneous field (III/2)	1.5 mm
Minimum clearance - inhomogeneous field (II/2)	1.5 mm
Minimum creepage distance value (III/3)	2 mm
Minimum creepage distance value (III/2)	1 mm
Minimum creepage distance value (II/2)	2 mm
Note on connection cross section	With connected conductor 1.5 mm² (stranded).

Current carrying capacity / derating curves

Vibration test

Specification	IEC 60068-2-6:1995-03
Result	Test passed
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

Resistance to ageing, humidity and penetration of solids

Dry heat	168 h/100°C
Humid heat	48 h/30 °C/92 %

Standards and Regulations

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

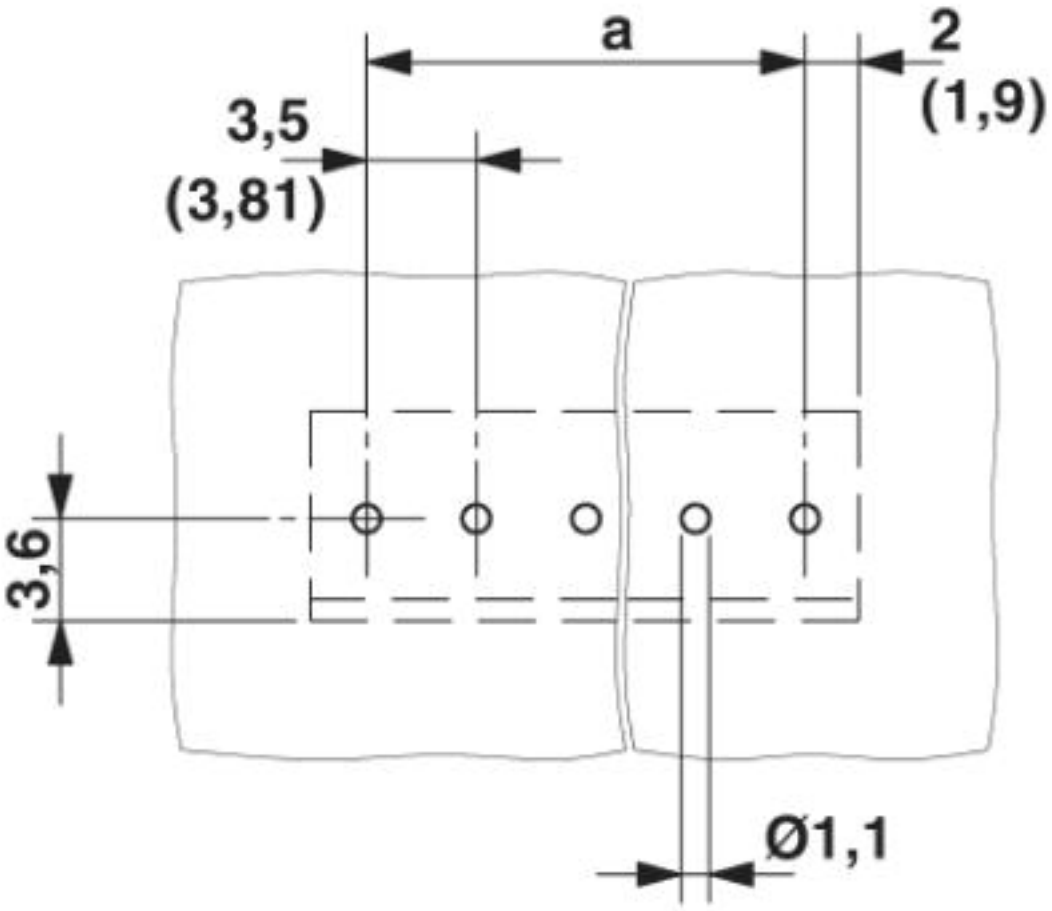
Environmental Product Compliance

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

PCB terminal block - MKDS 1/11-3,81 - 1727104

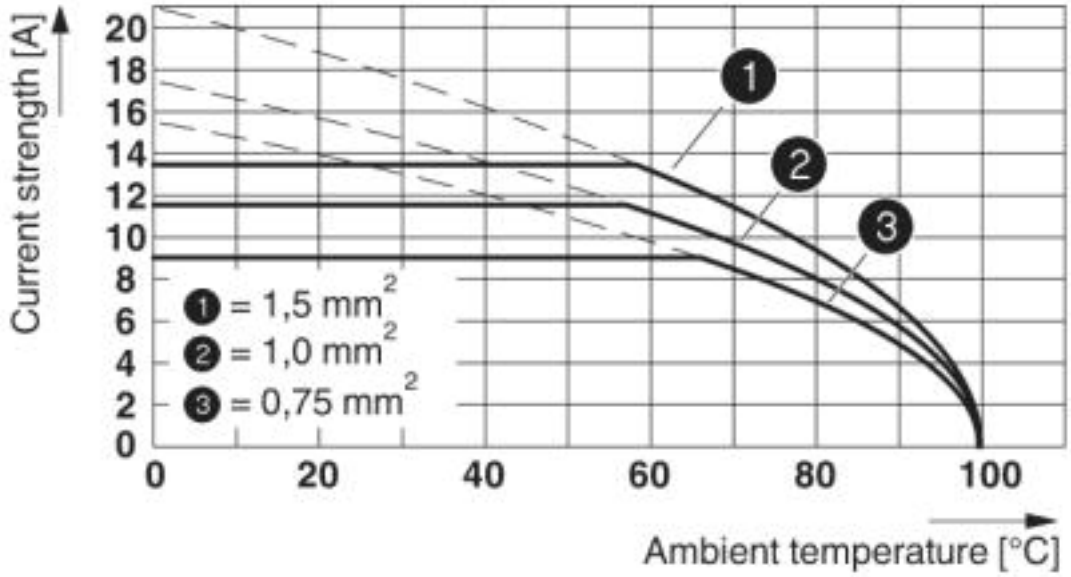
Drawings

Drilling diagram



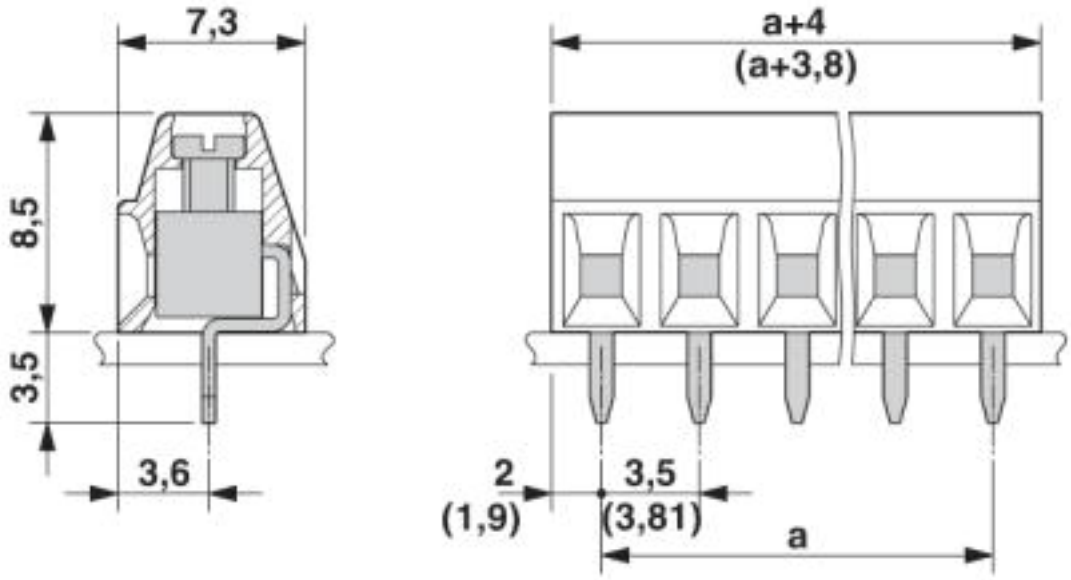
PCB terminal block - MKDS 1/11-3,81 - 1727104

Diagram



Type: MKDS 1/...-3,81
Tested according to DIN EN 60512-5-2:2003-01
Reduction factor = 1
Number of positions = 5

Dimensional drawing



Approvals

Approvals

PCB terminal block - MKDS 1/11-3,81 - 1727104

Approvals

Approvals

IECEE CB Scheme / SEV / EAC / cULus Recognized

Ex Approvals

Approval details

IECEE CB Scheme		http://www.iecee.org/	CH-10724

Nominal voltage UN	125 V
Nominal current IN	12 A
mm²/AWG/kcmil	1.5

SEV		https://www.electrosuisse.ch/de/meta/shop/produktezertifikate.html	IK-4486

Nominal voltage UN	125 V
Nominal current IN	12 A
mm²/AWG/kcmil	1.5

EAC		B.01742

cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-19770427

	B	D
Nominal voltage UN	300 V	300 V
Nominal current IN	10 A	10 A
mm²/AWG/kcmil	30-16	30-16

Phoenix Contact 2020 © - 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