PCB terminal block - MKDS 1,5/ 2-5,08

1715721

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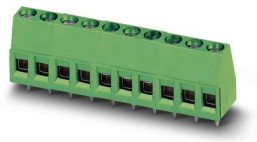


PCB terminal block, nominal current: 17.5 A, rated voltage (III/2): 400 V, nominal cross section: 1.5 mm^2, number of potentials: 2, number of rows: 1, number of positions per row: 2, product range: MKDS 1,5, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 3.5 mm, number of solder pins per potential: 1, type of packaging: packed in cardboard. The article can be aligned to create different nos. of positions!

Your advantages

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- Allows connection of two conductors
- The latching on the side enables various numbers of positions to be combined

Commercial Data

Order Key	1715721
Packing unit	250 pc
Minimum order quantity	250 pc
Sales Key	AAA
Product Key	AALFGG
Catalog Page	Page 95 (C-1-2013)
GTIN	4017918024192
Weight per Piece (including packing)	2.889 g
Weight per Piece (excluding packing)	2.74 g
Customs tariff number	85369010
Country of origin	DE

Technical Data

Product properties

Type	PC terminal block can be aligned
Number of positions	2
Number of connections	2
Number of rows	1
Number of potentials	2
Pin layout	Linear pinning

Electrical properties

Maximum load current	22 A
Rated voltage (II/2)	630 V
Rated voltage (III/2)	400 V
Rated surge voltage (II/2)	4 kV
Rated surge voltage (III/2)	4 kV
Rated surge voltage (III/3)	4 kV
Nominal voltage U_N	250 V
Nominal current I_N	17.5 A
Nominal current I_N	17.5 A

Connection data

Connection technology

Type	PC terminal block can be aligned
Nominal cross section	1.5 mm²

Conductor connection

Connection method	Screw connection with tension sleeve
Conductor cross section solid	0.14 mm² ... 2.5 mm²
Conductor cross section flexible	0.14 mm² ... 1.5 mm²
Conductor cross section AWG	26 ... 14
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 ... 1 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	7 mm
Torque	0.5 Nm ... 0.6 Nm

Mounting

Drive form screw head	Slotted (L)

Processing notes

Process	Wave soldering

Material specifications

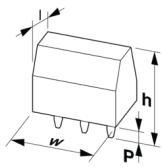
Material data - contact

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 (4 - 8 µm Sn)
Metal surface soldering area (top layer)	Tin (4 - 8 µm Sn)

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

Dimensional drawing	
Width	10.16 mm
Height	17.3 mm
Installed height	13.8 mm
Length of the solder pin	3.5 mm
Length	9.8 mm
Length of the solder pin	3.5 mm
Pin dimensions	0.9 x 0.9 mm
Hole diameter	1.3 mm
Pitch	5.08 mm

Mechanical tests

Test for conductor damage and slackening

Specification	IEC 60999-1:1999-11
Result	Test passed

Pull-out test

Specification	IEC 60999-1:1999-11
Conductor cross section/conductor type/tractive force setpoint/actual value	0.14 mm² / solid / > 10 N
	0.14 mm² / flexible / > 10 N
	2.5 mm² / solid / > 50 N
	1.5 mm² / flexible / > 40 N

Electrical tests

Electrical properties

Rated voltage (III/2)	400 V
Rated surge voltage (III/2)	4 kV
Pollution degree	2

Temperature-rise test

Specification	IEC 60947-7-4:2019-01
Requirement temperature-rise test	The sum of ambient temperature and temperature rise of the PCB terminal block shall not exceed the upper limiting temperature.

Short-time withstand current

Specification	IEC 60947-7-4:2019-01

Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 5 MΩ

Air clearances and creepage distances |

Specification	IEC 60947-1:2007-06 + A1:2010-12 + A2:2014-09
Insulating material group	I
Comparative tracking index (IEC 60112:2003-01)	CTI 600
Rated insulation voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV
minimum clearance value - non-homogenous field (III/3)	3 mm
minimum creepage distance (III/3)	3.2 mm
Note on connection cross section	With connected conductor 2.5 mm² (solid).
Rated insulation voltage (III/2)	400 V
Rated surge voltage (III/2)	4 kV
minimum clearance value - non-homogenous field (III/2)	3 mm
minimum creepage distance (III/2)	3 mm
Rated insulation voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV
minimum clearance value - non-homogenous field (II/2)	3 mm
minimum creepage distance (II/2)	3.2 mm

Environmental and real-life conditions

Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 - 60.1 Hz)
Sweep speed	5g (60.1 - 150 Hz)
Test duration per axis	2.5 h

Glow-wire test

Specification	IEC 60695-2-10:2013-04
Temperature	850 °C
Time of exposure	5 s

Aging

Specification	IEC 60947-7-4:2019-01

Ambient conditions

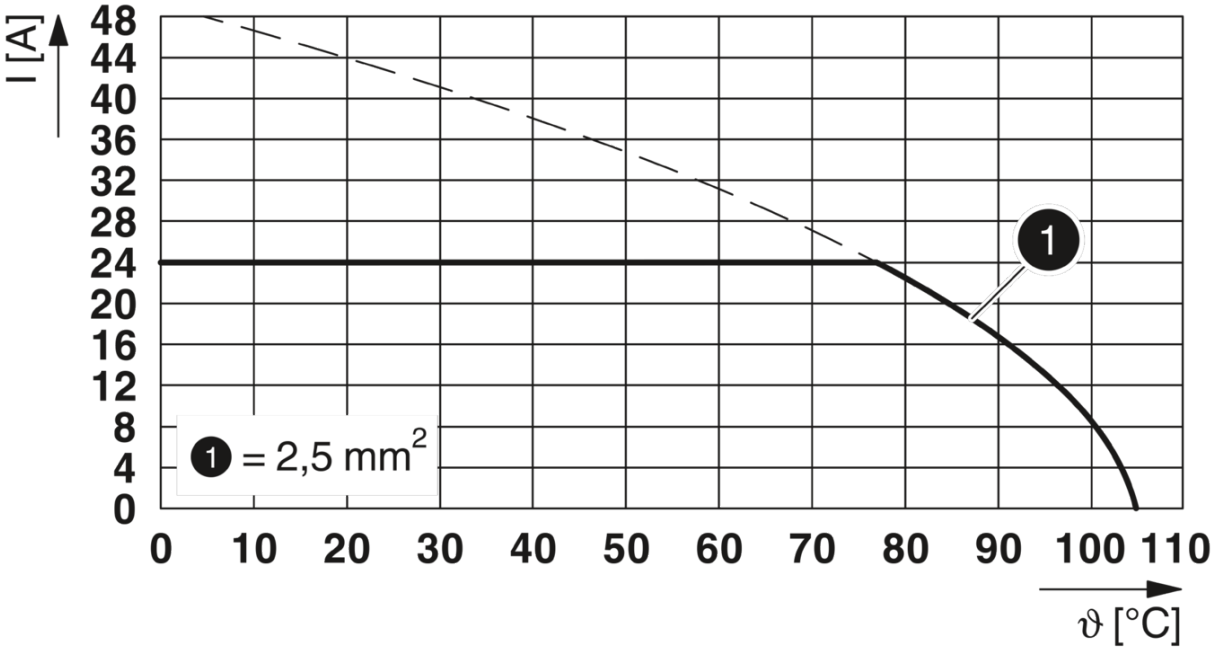
Ambient temperature (operation)	-40 °C ... 105 °C (Depending on the current carrying capacity/derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

Packaging specifications

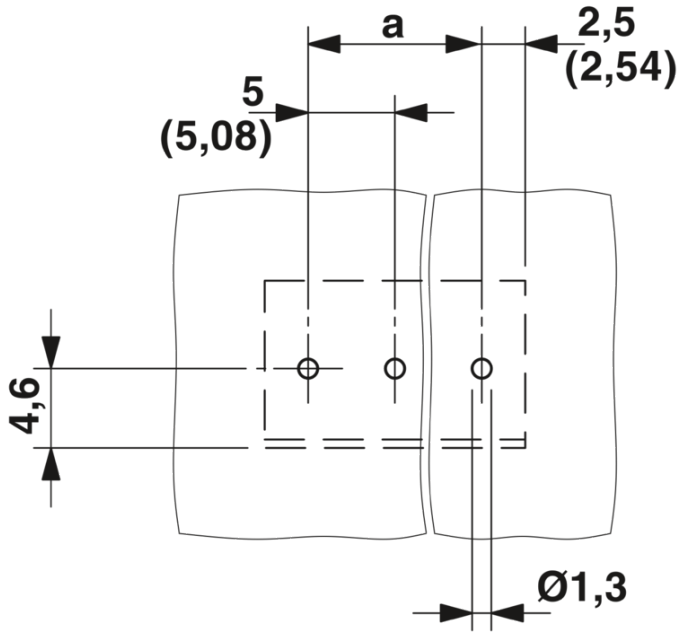
Type of packaging	packed in cardboard

Drawings

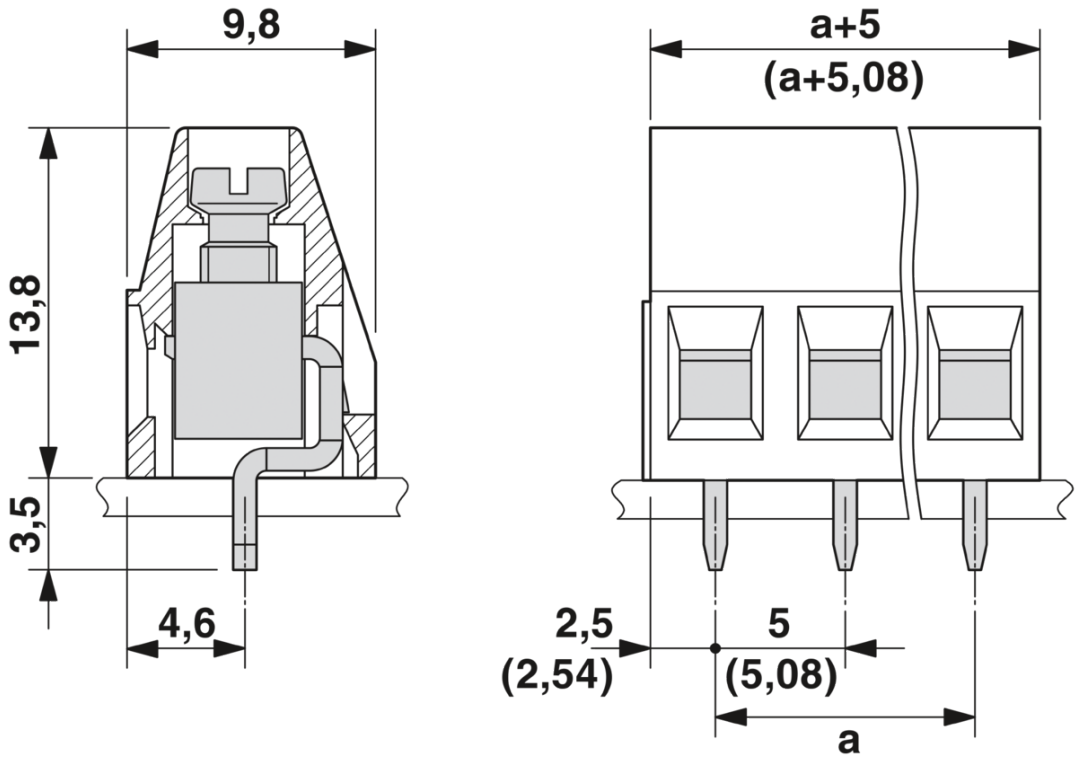
Diagram



Drilling plan/solder pad geometry



Dimensional drawing



Approvals

CSA	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
Use group B				
	300 V	10 A	28 - 14	-
Use group D				
	300 V	10 A	28 - 14	-

IECEE CB Scheme	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	250 V	24 A	-	- 2.5

EAC

cULus Recognized	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
Use group B				
	300 V	15 A	30 - 14	-
Use group D				
	300 V	10 A	30 - 14	-

DNV GL

SEV	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	250 V	24 A	-	- 2.5

Classifications

ECLASS

ECLASS-9.0	27440401
ECLASS-10.0.1	27440401
ECLASS-11.0	27460101

ETIM

ETIM 6.0	EC002643

UNSPSC

UNSPSC 19.0	39121432
UNSPSC 20.0	39121432
UNSPSC 21.0	39121432

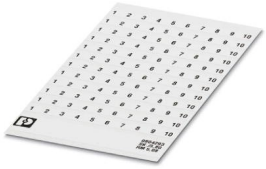
Environmental Product Compliance

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

Accessories

Marker card

Marker card - SK 5,08/3,8:FORTL.ZAHLEN - 0804293



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: 5.08 mm, lettering field size: 5.08 x 3.8 mm

Screwdriver

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

Pitch spacer

Pitch spacer - RZ 1,25-MKDS 1,5 - 1702048

Pitch spacer, for adjusting the pitches between MKDS and GMKDS terminal blocks in mixed rows, 1.25 mm thick

Insertion bridge

Insertion bridge - EBP 2- 5 - 1733169

Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch

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Crimping pliers

Crimping pliers - CRIMPFOX 6 - 1212034

Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm^2 ... 6.0 mm^2, lateral entry, trapezoidal crimp

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