PCB terminal block - MKDSO 2,5/ 4-L - 1707234

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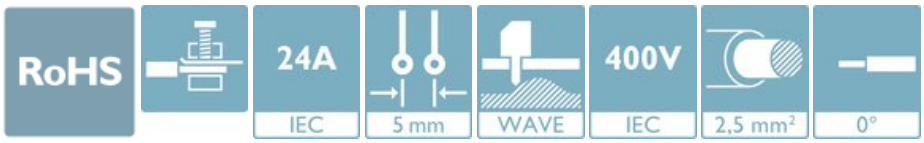
PCB terminal block, nominal current: 24 A, rated voltage (III/2): 400 V, nominal cross section: 2.5 mm², number of potentials: 4, Number of rows: 1, Number of positions per row: 4, product range: MKDSO 2,5/..-L, pitch: 5 mm, connection method: Screw connection with tension sleeve, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 3.5 mm, type of packaging: packed in cardboard. Article with lateral pin exit

Your advantages

- Maintenance-free and vibration-resistant, thanks to the Reakdyn principle or spring-loaded elements
- PCB terminal block is orthogonal to the PCB
- Internationally recognized and proven screw connection



Key Commercial Data

Packing unit	1 pc
Minimum order quantity	250 pc
GTIN	4 017918 136826
GTIN	4017918136826
Weight per Piece (excluding packing)	8.270 g
Custom tariff number	85369010
Country of origin	Germany

Technical data

Item properties

Brief article description	PCB terminal block
Range of articles	MKDSO 2,5/..-L
Pitch	5 mm
Number of positions	4
Screw thread	M3

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Technical data

Item properties

Mounting type	Wave soldering
Pin layout	Linear pinning
Number of rows	1
Number of connections	4
Number of potentials	4

Electrical parameters

Nominal current	24 A
Nom. voltage	400 V
Rated voltage (III/3)	250 V
Rated voltage (III/2)	400 V
Rated voltage (II/2)	630 V
Rated surge voltage (III/3)	4 kV
Rated surge voltage (III/2)	4 kV
Rated surge voltage (II/2)	4 kV

Connection capacity

Connection method	Screw connection with tension sleeve
Conductor cross section solid	0.14 mm² ... 2.5 mm²
Conductor cross section flexible	0.14 mm² ... 2.5 mm²
Conductor cross section AWG / kcmil	26 ... 14
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 2.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 2.5 mm²
2 conductors with same cross section, solid	0.14 mm² ... 0.75 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 ... 0.75 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² ... 1.5 mm²
Stripping length	8 mm
Torque	0.5 Nm ... 0.6 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)

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Material data - contact

Metal surface soldering area (middle layer)	Nickel (2 - 3 µm Ni)

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 for the product

Caption	Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center
Length [l]	15.3 mm
Width [w]	20.95 mm
Height [h]	21.25 mm
Pitch	5 mm
Solder pin [P]	3.5 mm
Pin dimensions	0.8 x 1 mm

Dimensions for PCB design

Hole diameter	1.4 mm
PCB thickness	1.4 mm ... 1.8 mm

Packaging information

Type of packaging	packed in cardboard
Pieces per package	250
Denomination packing units	Pcs.

Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 55 °C
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 105 °C (Depending on the current carrying capacity/derating curve)
Relative humidity (storage/transport)	30 % ... 70 %

Connection and connection method

Test for conductor damage and slackening	IEC 60998-2-1:1990-04

Pull-out test

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Pull-out test

Pull-out test	IEC 60998-2-1:1990-04
Conductor cross section / conductor type / tensile force	0.14 mm² / solid / > 10 N
	0.14 mm² / flexible / > 10 N
	2.5 mm² / solid / > 50 N
	2.5 mm² / flexible / > 50 N

Air clearances and creepage distances

Clearances and creepage distances	IEC 60664-1:2007-04
Specification	IEC 60664-1:2007-04
Minimum clearance - inhomogeneous field (III/3)	3 mm
Minimum clearance - inhomogeneous field (III/2)	3 mm
Minimum clearance - inhomogeneous field (II/2)	3 mm
Minimum creepage distance value (III/3)	3.2 mm
Minimum creepage distance value (III/2)	2 mm
Minimum creepage distance value (II/2)	3.2 mm

Temperature-rise test

Specification	IEC 60998-2-1:1990-04
Requirement temperature-rise test	Increase in temperature ≤ 45 K

Current carrying capacity / derating curves

Caption	Type: MKDSO 2,5/4...L(R) Test based on DIN EN 60512-5-2:2003-01 Reduction factor = 1 Number of positions: 4

Insulation resistance

Specification	IEC 60998-2-1:1990-04
Result	Test passed
Insulation resistance, neighboring positions	10^9 Ω

Thermal stability (test finger safety)

Result	Test passed
Specification	IEC 60998-2-1:1990-04

Mechanical strength/tumbling barrel

Specification	IEC 60998-2-1:1990-04
Number of drop cycles	50

Vibration test

Specification	IEC 60068-2-6:1995-03
Frequency	10 - 150 - 10 Hz

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Vibration test

Sweep speed	1 octave/min
Amplitude	0.35 mm (10 - 60.1 Hz)
Acceleration	5g (60.1 - 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis

Thermal stability (ball thrust test)

Specification	IEC 60998-2-1:1990-04
Test duration	1 h

Test for assessing the risk of fire (glow wire)

Specification	IEC 60998-2-1:1990-04
Temperature	850 °C
Time of exposure	5 s

Standards and Regulations

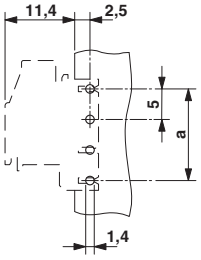
Connection in acc. with standard	EN-VDE
	CSA

Environmental Product Compliance

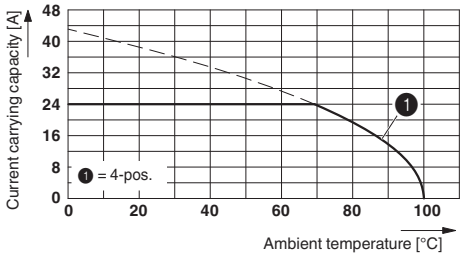
REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

Drawings

Drilling diagram



Diagram



Type: MKDSO 2,5/4...L(R)
Test based on DIN EN 60512-5-2:2003-01
Reduction factor = 1
Number of positions: 4

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Classifications

eCl@ss

eCl@ss 10.0.1	27440401
eCl@ss 11.0	27460101
eCl@ss 4.0	27180400
eCl@ss 4.1	27180400
eCl@ss 5.0	27180500
eCl@ss 5.1	27261100
eCl@ss 6.0	27261100
eCl@ss 7.0	27440401
eCl@ss 9.0	27440401

ETIM

ETIM 2.0	EC001031
ETIM 3.0	EC001031
ETIM 4.0	EC002643
ETIM 6.0	EC002643
ETIM 7.0	EC002643

UNSPSC

UNSPSC 6.01	31261501
UNSPSC 7.0901	31261501
UNSPSC 11	31261501
UNSPSC 12.01	31261501
UNSPSC 13.2	39121432
UNSPSC 18.0	39121432
UNSPSC 19.0	39121432
UNSPSC 20.0	39121432
UNSPSC 21.0	39121432

Approvals

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CSA / IECEE CB Scheme / EAC / cULus Recognized / VDE Gutachten mit Fertigungsüberwachung

Ex Approvals

PCB terminal block - MKDSO 2,5/ 4-L - 1707234

Approvals

Approval details

CSA	http://www.csagroup.org/services-industries/product-listing/	13631

	B	D
Nominal voltage UN	300 V	300 V
Nominal current IN	10 A	10 A
mm²/AWG/kcmil	28-12	28-12

IECEE CB Scheme	http://www.iecee.org/	CB DE1-60046

Nominal voltage UN	450 V
Nominal current IN	24 A
mm²/AWG/kcmil	2.5

EAC	B.01687

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	20 A	10 A
mm²/AWG/kcmil	30-12	30-12

VDE Gutachten mit Fertigungsüberwachung	http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40023968

Nominal voltage UN	450 V
Nominal current IN	24 A
mm²/AWG/kcmil	0.2-2.5

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Accessories

Accessories

Mounting material

Shield connection clamp - ME-SAS - 2853899

Shield connection clamp for terminal points starting from 2.5 mm^2