

MKDSN 2,5/ 4 HT BK R44 - PCB terminal block



1050595

<https://www.phoenixcontact.com/us/products/1050595>

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PCB terminal block, nominal current: 16 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of rows: 1, number of positions per row: 4, product range: MKDSN 2,5/..-HT, pitch: 5 mm, connection method: Screw connection with tension sleeve, screw head form: H1L Slotted Phillips recess, mounting: THR soldering, conductor/PCB connection direction: 0 °, color: black, Pin layout: Linear pinning, Solder pin [P]: 3.5 mm, number of solder pins per potential: 1, type of packaging: 44 mm wide tape

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
- Designed for integration into the SMT soldering process
- Integrated protective guide prevents incorrect insertion of the conductor underneath the tension sleeve
- The latching on the side enables various numbers of positions to be combined

Commercial data

Item number	1050595
Packing unit	1 pc
Minimum order quantity	140 pc
Sales key	AA13
Product key	AAMGAA
GTIN	4055626669311
Weight per piece (including packing)	9.726 g
Weight per piece (excluding packing)	9 g
Customs tariff number	85369010
Country of origin	DE

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Technical data

Product properties

Product line	COMBICON Terminals M
Product type	Printed circuit board terminal
Product family	MKDSN 2,5/...-HT
Number of positions	4
Pitch	5 mm
Number of rows	1
Pin layout	Linear pinning
Solder pins per potential	1

Electrical properties

Nominal current I_N	16 A
Nominal voltage U_N	320 V
Degree of pollution	3
Rated voltage (III/3)	200 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
Rated voltage (II/2)	320 V
Rated surge voltage (II/2)	4 kV

Connection data

Connection technology

Type	PC termination block
Nominal cross section	2.5 mm ²

Conductor connection

Connection method	Screw connection with tension sleeve
Conductor cross section rigid	0.2 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	24 ... 14
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 2.5 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 2.5 mm ²
2 conductors with same cross section, solid	0.2 mm ² ... 0.75 mm ²
2 conductors with same cross section, flexible	0.2 mm ² ... 0.75 mm ²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm ² ... 0.75 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 1.5 mm ²
Stripping length	6.5 mm
Tightening torque	0.5 Nm ... 0.6 Nm

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Mounting

Mounting type	THR soldering
Pin layout	Linear pinning
Drive form screw head	Slotted Phillips recess (H1L)
Drive form screw head	Slotted Phillips recess (H1L)

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	hot-dip tin-plated
Metal surface terminal point (top layer)	Tin (4 - 8 µm Sn)
Metal surface soldering area (top layer)	Tin (4 - 8 µm Sn)

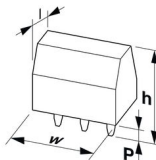
Material data - housing

Color (Housing)	black (9005)
Insulating material	PA
Insulating material group	IIIa
CTI according to IEC 60112	250 - 399
Flammability rating according to UL 94	V0

Notes

Note on application	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).
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Dimensions

Dimensional drawing	
Pitch	5 mm
Width [w]	20 mm
Height [h]	18.5 mm
Length [l]	9.5 mm
Installed height	15 mm
Solder pin length [P]	3.5 mm
Pin dimensions	0.8 x 0.9 mm

PCB design

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Hole diameter	1.3 mm
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Electrical tests

Air clearances and creepage distances |

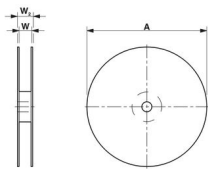
Specification	IEC 60947-1:2007-06 + A1:2010-12 + A2:2014-09
Insulating material group	IIIa
Comparative tracking index (IEC 60112)	CTI 250 - 399
Rated insulation voltage (III/3)	200 V
Rated surge voltage (III/3)	4 kV
minimum clearance value - non-homogenous field (III/3)	3 mm
minimum creepage distance (III/3)	3.2 mm
Rated insulation voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
minimum clearance value - non-homogenous field (III/2)	3 mm
minimum creepage distance (III/2)	3.2 mm
Rated insulation voltage (II/2)	320 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

Ambient conditions

Ambient temperature (operation)	-40 °C ... 100 °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

Dimensional drawing	
Type of packaging	44 mm wide tape
[W] tape width	44 mm
[W2] coil overall dimension	50.4 mm
[A] coil diameter	330 mm
Outer packaging type	Dry bag
ESD level	(D) electrostatically conductive
Specification	DIN EN 61340-5-1 (VDE 0300-5-1): 2008-07

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1050595>

 cULus Recognized Approval ID: E60425-19770427				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	300 V	20 A	30 - 12	-
Use group D				
	150 V	15 A	30 - 12	-

 VDE Gutachten mit Fertigungsüberwachung Approval ID: 40018557				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	250 V	24 A	-	0.2 - 2.5

 VDE Zeichengenehmigung Approval ID: 40055535				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	400 V	24 A	-	0.2 - 2.5

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Classifications

ECLASS

ECLASS-11.0	27460101
ECLASS-12.0	27460101
ECLASS-13.0	27460101

ETIM

ETIM 8.0	EC002643
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UNSPSC

UNSPSC 21.0	39121400
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Environmental product compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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