

1712740

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PCB terminal block, nominal current: 24 A, rated voltage (III/2): 400 V, nominal cross section: 2.5 mm<sup>2</sup>, number of potentials: 2, number of rows: 1, number of positions per row: 2, product range: MKDS 3, 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: gray, Pin layout: Linear pinning, Solder pin [P]: 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
- · 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	1712740
Packing unit	1 pc
Minimum order quantity	50 pc
Note	Made to Order (non-returnable)
Sales Key	AAM
Product Key	AAMFIB
GTIN	4017918232122
Weight per Piece (including packing)	4.24 g
Weight per Piece (excluding packing)	4.2 g
Customs tariff number	85369010
Country of origin	IN



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### **Technical Data**

#### Product properties

Туре	PC terminal block can be aligned
Product line	COMBICON Terminals M
Product type	Printed circuit board terminal
Product family	MKDS 3
Number of positions	2
Pitch	5.08 mm
Number of connections	2
Number of rows	1
Number of potentials	2
Pin layout	Linear pinning
Solder pins per potential	1

#### Electrical properties

Nominal current I <sub>N</sub>	24 A
Nominal voltage U <sub>N</sub>	400 V
Degree of pollution	3
Rated voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	400 V
Rated surge voltage (III/2)	4 kV
Rated voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV

#### Connection data

#### Connection technology

Туре	PC terminal block can be aligned
Nominal cross section	2.5 mm²

#### Conductor connection

Connection method	Screw connection with tension sleeve
Conductor cross section rigid	0.2 mm² 4 mm²
Conductor cross section flexible	0.2 mm² 2.5 mm²
Conductor cross section AWG	24 12
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	0.2 mm² 1.5 mm²
2 conductors with same cross section, flexible	0.2 mm² 1.5 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	0.5 mm² 1.5 mm²



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ferrule with plastic sleeve		
Stripping length	8 mm	
Tightening torque	0.5 Nm 0.6 Nm	
unting		
Mounting type	Wave soldering	
Pin layout	Linear pinning	
Drive form screw head	Slotted (L)	
Drive form screw head	Slotted (L)	
erial specifications aterial 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)	
aterial data - housing		
Color (Housing)	gray (7042)	
Insulating material	PA	
Insulating material group	1	
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	
aterial data – actuating element		
Color ()	()	
es		
Note on application	For safe conductor connection, always adhere to a defined tightening torque. Particularly in the case of PCB terminal block 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	

#### **Dimensions**

(held with one hand, support on the housing).



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Dimensional drawing	h p
Pitch	5.08 mm
Width [w]	10.16 mm
Height [h]	23 mm
Length [I]	11.2 mm
Installed height	23 mm
Solder pin length [P]	5 mm
PCB design	
Pin spacing	15.24 mm

#### Electrical tests

#### 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)	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 4 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

#### 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



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Type of packaging	packed in cardboard

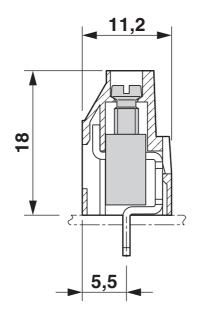


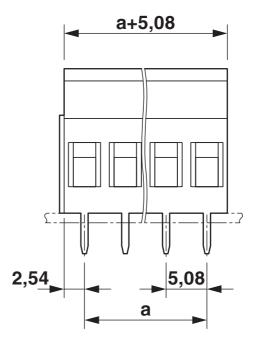
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### Drawings

#### Dimensional drawing



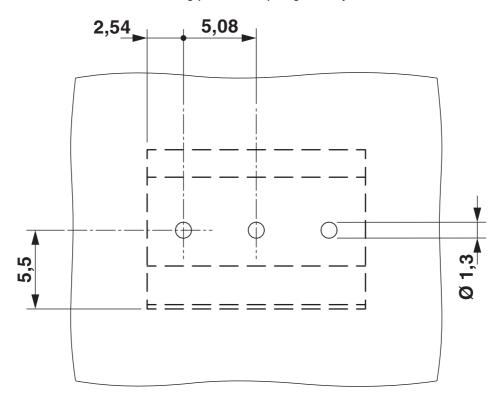




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### Drilling plan/solder pad geometry





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### Approvals

CSA Approval ID: 13631				
	Nominal Voltage $U_N$	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
Use group B				
	300 V	10 A	28 - 12	-
Use group D				
	300 V	10 A	28 - 12	-

EHE	EAC
LIIL	Approval ID: B.01687

cULus Recognized Approval ID: E60425-19770427				
	Nominal Voltage U <sub>N</sub>	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
Use group B				
Multi-conductor connection	300 V	15 A	30 - 18	-
Screw connection	300 V	15 A	30 - 12	-
Use group D				
Multi-conductor connection	300 V	10 A	30 - 18	-
Screw connection	300 V	10 A	30 - 12	-

DNV GL	
Approval ID: TAE00001EV	

CB screme	IECEE CB Schem Approval ID: DE1-66542				
		Nominal Voltage $U_N$	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
		400 V	28 A	-	0.2 - 4

VDE Zeichengenehmigung Approval ID: 40055394				
	Nominal Voltage U <sub>N</sub>	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
	400 V	28 A	-	0.2 - 4



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### Classifications

UNSPSC 21.0

#### **ECLASS**

ECLASS-11.0	27460101
ECLASS-12.0	27460101
ECLASS-13.0	27460101
ETIM	
ETIM 8.0	EC002643
UNSPSC	

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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#### Accessories



Note: Applying some accessories below might limit this product.

#### EBP 2-5 - Insertion bridge

1733169

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Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch



Max. current carrying capacity: 12 A

#### SZS 0,6X3,5 - Screwdriver

1205053

https://www.phoenixcontact.com/in/products/1205053



Actuation tool, for ST terminal blocks, insulated, also suitable for use as a bladed screwdriver, size:  $0.6 \times 3.5 \times 100$  mm, 2-component grip, with non-slip grip



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#### RZ 1,25-MKDS 3 - Pitch spacer

1703047

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

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

0804293

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Marker card, white, labeled, horizontal: consecutive numbers 1  $\dots$  10, 11  $\dots$  20, etc. up to 91  $\dots$  (99)100, mounting type: adhesive, for terminal block width: 5.08 mm, lettering field size: 5.08 x 3.8 mm



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#### SK 5,08/3,8:UNBEDRUCKT - Marker card

0805412

https://www.phoenixcontact.com/in/products/0805412

Marker card, white, unlabeled, can be labeled with: Marker pen, mounting type: adhesive, for terminal block width: 5.08 mm, lettering field size: 5.08 x 3.8 mm



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