

# MK3DSMH 3/ 2-5,08-EX - PCB terminal block

1870255

<https://www.phoenixcontact.com/us/products/1870255>

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PCB terminal block, nominal current: 20 A, nominal cross section: 2.5 mm<sup>2</sup>, number of potentials: 4, number of rows: 2, number of positions per row: 2, product range: MK3DSMH 3-EX, 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]: 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
- Satisfies the more stringent safety requirements of "Ex e" protection according to IEC 60079-7 for potentially explosive areas
- Tall type enables conductor connection for sealed PCBs
- Conductor connection on several levels enables higher contact density
- 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	1870255
Packing unit	50 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Sales key	AA13
Product key	AAMFKK
GTIN	4017918310059
Weight per piece (including packing)	12.969 g
Weight per piece (excluding packing)	11.77 g
Customs tariff number	85369010
Country of origin	CN

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## Technical data

### Product properties

Product type	PCB terminal block
Product family	MK3DSMH 3-EX
Product line	COMBICON Terminals M
Type	PC terminal block can be aligned
Number of positions	2
Pitch	5.08 mm
Number of connections	4
Number of rows	2
Number of potentials	4
Pin layout	Linear pinning
Solder pins per potential	1

### Electrical properties

#### Properties

Nominal current $I_N$	20 A
Nominal voltage $U_N$	176 V
Rated current / conductor cross-section	19 A/2.5 mm <sup>2</sup>

### Ex data

#### Ex approval

Identification	0344 <sup>Ⓢ</sup> II 2GD / Ex eb IIC Gb
EU-type examination certificate	KEMA 01ATEX2130 U
IECEx certificate	IECEx KEM 07.0019 U

### Connection data

#### Connection technology

Type	PC terminal block can be aligned
Nominal cross section	2.5 mm <sup>2</sup>

#### Conductor connection

Connection method	Screw connection with tension sleeve
Conductor cross-section rigid	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup> 0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross-section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section AWG	24 ... 12
Conductor cross-section, flexible, with ferrule, without plastic sleeve	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
2 conductors with same cross section, rigid	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
2 conductors with same cross section, flexible	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>

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2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 0.75 mm <sup>2</sup>
Stripping length	7 mm
Drive form screw head	Slotted (L)
Tightening torque	0.5 Nm ... 0.6 Nm

## Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning

## Material specifications

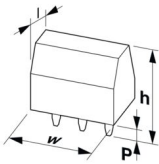
### Material data - contact

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 (5 µm - 7 µm Sn)
Metal surface soldering area (top layer)	Tin (5 µm - 7 µm Sn)

### Material data - housing

Color (Housing)	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	
Pitch	5.08 mm
Width [w]	10.16 mm
Height [h]	49.8 mm
Length [l]	23.1 mm
Installed height	44.8 mm
Solder pin length [P]	5 mm
Pin dimensions	0.9 x 0.9 mm

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## PCB design

Hole diameter	1.3 mm
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## Environmental and real-life conditions

### Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-50 °C ... 110 °C

## Packaging specifications

Type of packaging	packed in cardboard
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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1870255>



**ATEX**

Approval ID: KEMA 01ATEX2130 U



**IECEX**

Approval ID: IECEX KEM 07.0019 U



**CCC**

Approval ID: 2026322313007327

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## Classifications

### ECLASS

ECLASS-13.0	27460101
ECLASS-15.0	27460101

### ETIM

ETIM 10.0	EC002643
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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