MSTBV 2,5/ 3-GF-5,08 EX BK - PCB header

1806451

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PCB headers, nominal cross section: 2.5 mm^2, color: black, nominal current: 12 A, contact surface: Sn, contact connection type: Pin, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: MSTBV 2,5/..-GF-EX, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.9 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5 EX, Pin connector pattern alignment: Standard, locking: Screw locking mechanism, mounting method: Threaded flange, type of packaging: packed in cardboard

Your advantages

- Satisfies the more stringent safety requirements of “Ex eb” protection according to IEC 60079-7 for potentially explosive areas
- Screwable flange for superior mechanical stability
- Vertical connection enables multi-row arrangement on the PCB
- Well-known mounting principle allows worldwide use
- Closed contour for optimum stability of the plug-in connection

Commercial data

Item number	1806451
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AA03
Product key	AACSMK
GTIN	4046356703543
Weight per piece (including packing)	2.472 g
Weight per piece (excluding packing)	2.187 g
Customs tariff number	85366930
Country of origin	DE

Technical data

Product properties

Product type	PCB headers
Product family	MSTBV 2,5/..-GF-EX
Product line	COMBICON Connectors M
Number of positions	3
Pitch	5.08 mm
Number of connections	3
Number of rows	1
Number of potentials	3
Mounting type	Threaded flange
Pin layout	Linear pinning
Solder pins per potential	1

Fitting of components

Partial assembly	No

Electrical properties

Properties

Nominal current I_N	12 A
Nominal voltage U_N	176 V
Rated current / conductor cross-section	12 A/2.5 mm²

Ex data

Ex approval

Identification	0344 Ex II 2GD / Ex eb IIC Gb
EU-type examination certificate	KEMA 10ATEX0196 U
IECEx certificate	IECEx KEM 10.0093U

Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning

Flange

Tightening torque	0.3 Nm

Attachment on the PCB

Tightening torque	0.3 Nm
Screw	Sheet metal screw ISO 1481-ST 2,2x6,5 C or ISO 7049-ST 2,2x6,5 C

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 contact area (top layer)	Tin (3 µm - 5 µm Sn)
Metal surface contact area (middle layer)	Nickel (1.3 µm - 3 µm Ni)
Metal surface soldering area (top layer)	Tin (3 µm - 5 µm Sn)
Metal surface soldering area (middle layer)	Nickel (1.3 µm - 3 µm Ni)

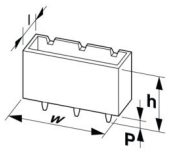
Material data - housing

Color (Housing)	black (9005)
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

Notes

Notes on operation	In accordance with IEC 61984, COMBICON connectors have no switching power (COC). During designated use, they must not be plugged in or disconnected when carrying voltage or under load.

Dimensions

Dimensional drawing	
Pitch	5.08 mm
Width [w]	25.4 mm
Height [h]	15.9 mm
Length [l]	8.57 mm
Installed height	12 mm
Solder pin length [P]	3.9 mm
Pin dimensions	1 x 1 mm

PCB design

Hole diameter	1.4 mm

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)	-60 °C ... 110 °C

Packaging specifications

Type of packaging	packed in cardboard

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1806451

ATEX
Approval ID: KEMA 10ATEX0196 U

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	176 V	12 A	-	0.2 - 2.5

IECEx
Approval ID: IECEx KEM 10.0093U

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	176 V	12 A	-	0.2 - 2.5

CCC
Approval ID: 2021122313114375

Classifications

ECLASS

ECLASS-13.0	27460201
ECLASS-15.0	27460201

ETIM

ETIM 10.0	EC002637

UNSPSC

UNSPSC 21.0	39121400

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

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%

EF3.1 Climate Change

CO2e kg	0.013 kg CO2e

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