

1809681

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, contact surface: Sn, contact connection type: Socket, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: MVSTBR 2,5/..-STF-EX, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 90 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5 EX, locking: Screw locking mechanism, mounting: Screw flange, type of packaging: packed in cardboard

Your advantages

- · Well-known connection principle allows worldwide use
- · Low temperature rise, thanks to maximum contact force
- · Screwable flange for superior mechanical stability
- · Satisfies the more stringent safety requirements of "Ex eb" protection according to IEC 60079-7 for potentially explosive areas

Commercial data

Item number	1809681
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AA03
Product key	AACAKM
Catalog page	Page 369 (C-1-2013)
GTIN	4046356705080
Weight per piece (including packing)	7.708 g
Weight per piece (excluding packing)	7.293 g
Customs tariff number	85366990
Country of origin	DE



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Technical data

Product properties

Product type	PCB connector		
Draduat family			
Product family	MVSTBR 2,5/STF-EX		
Product line	COMBICON Connectors M		
Туре	Standard		
Number of positions	3		
Pitch	5.08 mm		
Number of connections	3		
Number of rows	1		
Number of potentials	3		
Mounting flange	Screw flange		
Data management status			
Article revision	02		

Nominal current I _N	12 A
Nominal voltage U _N	176 V
Rated current / conductor cross section	12 A/2.5 mm ²

Ex data

Ex approval

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

Connection data

Connection technology

Туре	Standard
Connector system	COMBICON MSTB 2,5 EX
Nominal cross section	2.5 mm²
Contact connection type	Socket

Interlock

Locking type	Screw locking mechanism
Mounting flange	Screw flange
Tightening torque	0.3 Nm

Conductor connection

Connection method	Screw connection with tension sleeve
Conductor/PCB connection direction	90 °
Conductor cross section rigid	0.2 mm ² 2.5 mm ²



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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 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 1 mm²	
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² 1.5 mm²	
Cylindrical gauge a x b / diameter	2.8 mm x 2.0 mm / 2.4 mm	
Stripping length	7 mm	
Drive form screw head	Slotted (L)	
Tightening torque	0.5 Nm 0.6 Nm	
Specifications for ferrules without insulating collar		
recommended crimping tool	1212034 CRIMPFOX 6	
pecifications for ferrules with insulating collar		
recommended crimping tool	1212034 CRIMPFOX 6	

Material specifications

Material data - contact

Flammability rating according to UL 94

Glow wire flammability index GWFI according to EN 60695-2-12

Glow wire ignition temperature GWIT according to EN 60695-2-

Temperature for the ball pressure test according to EN 60695-

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 contact area (top layer)	Tin (4 - 8 µm Sn)	
Material data - housing		
Color (Housing)	green (6021)	
Insulating material	PA	
Insulating material group		
CTI according to IEC 60112	600	

V0

850

775

125 °C

Dimensions

10-2



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Dimensional drawing	h
Pitch	5.08 mm
Width [w]	25.4 mm
Height [h]	26 mm
Length [I]	12.6 mm

Mounting

Flange

Tightening torque	0.3 Nm	

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.

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-60 °C 110 °C
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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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1809681

€ x	ATEX Approval ID: KEMA 10ATEX0196 U			
	Nominal voltage $\mathbf{U}_{\mathbf{N}}$	Nominal current I _N	Cross section AWG	Cross section mm ²
	176 V	12 A	-	0.2 - 2.5

II (IEĈEx	IECEX Approval ID: IECEX KEM 10.0093U				
		Nominal voltage U_N	Nominal current I _N	Cross section AWG	Cross section mm ²
		176 V	12 A	-	0.2 - 2.5

EAC Ex Approval ID: B.00065/19

(1)	CCC Approval ID: 2021122313114375



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Classifications

ECLASS

	ECLASS-11.0	27460202
	ECLASS-12.0	27460202
	ECLASS-13.0	27460202
ET	ТМ	
	ETIM 9.0	EC002638
UN	ISPSC	
	UNSPSC 21.0	39121400



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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%

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