

1810188

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, contact surface: Sn, contact connection type: Pin, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: IC 2,5/..-STF-EX, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - without 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
- · Inverted connector with pin contacts for touch-proof device outputs or free-hanging cable/cable connections
- · 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
- · Easy PCB replacement thanks to plug-in modules

#### Commercial data

Item number	1810188
Packing unit	50 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Product key	AACADD
Catalog page	Page 373 (C-1-2013)
GTIN	4046356706513
Weight per piece (including packing)	16.21 g
Weight per piece (excluding packing)	16 g
Customs tariff number	85366990
Country of origin	DE



1810188

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# Technical data

### Product properties

Product type	PCB connector
Product family	IC 2,5/STF-EX
Product line	COMBICON Connectors M
Туре	Inverted
Number of positions	9
Pitch	5.08 mm
Number of connections	9
Number of rows	1
Number of potentials	9
Mounting flange	Screw flange
Data management status	
	04

Nominal current I <sub>N</sub>	12 A
Nominal voltage U <sub>N</sub>	176 V
Rated current / conductor cross section	12 A/2.5 mm <sup>2</sup>

### Ex data

### Ex approval

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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	Inverted
Connector system	COMBICON MSTB 2,5 EX
Nominal cross section	2.5 mm²
Contact connection type	Pin

#### 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	0 °
Conductor cross section rigid	0.2 mm <sup>2</sup> 2.5 mm <sup>2</sup>



1810188

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Conductor cross section flexible	0.2 mm² 2.5 mm²
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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 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 mm <sup>2</sup> 1 mm <sup>2</sup>
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm <sup>2</sup> 1.5 mm <sup>2</sup>
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
Specifications for ferrules with insulating collar	
recommended crimping tool	1212034 CRIMPFOX 6

# 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 - 7 µm Sn)
Metal surface terminal point (middle layer)	Nickel (2 - 3 µm Ni)
Metal surface contact area (top layer)	Tin (5 - 7 µm Sn)
Metal surface contact area (middle layer)	Nickel (2 - 3 µm Ni)

# 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**



1810188

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	Dimensional drawing	h
	Pitch	5.08 mm
	Width [w]	47.22 mm
	Height [h]	15 mm
	Length [I]	19 mm
Mounting Flange		
i	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

Type of packaging	packed in cardboard



1810188

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# **Approvals**

To download certificates, visit the product detail page: https://www.phoenixcontact.com/pc/products/1810188

cULus Recognized Approval ID: E60425-19931014				
	Nominal voltage $U_N$	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
Use group B				
	250 V	12 A	30 - 12	-
Use group D				
	300 V	10 A	30 - 12	-

<b>(Ex</b> )	ATEX Approval ID: KEMA 10ATEX0196 U				
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
		176 V	12 A	-	0.2 - 2.5

(    IEĈEx	IECEX Approval ID: IECEX KEM 10.0093U				
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
		176 V	12 A	-	0.2 - 2.5

<b>((()</b>	CCC Approval ID: 2021122313114375



1810188

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# Classifications

#### **ECLASS**

	ECLASS-11.0	27460202			
	ECLASS-12.0	27460202			
	ECLASS-13.0	27460202			
ΕT	ETIM				
	ETIM 9.0	EC002638			
UNSPSC					
	UNSPSC 21.0	39121400			



1810188

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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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PHOENIX CONTACT GmbH & Co. KG Flachsmarktstraße 8 D-32825 Blomberg +49 (0) 5235-3 00 info@phoenixcontact.com