

1810175

https://www.phoenixcontact.com/us/products/1810175

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, contact surface: Tin, contact connection type: Pin, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, 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	1810175
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AA03
Product key	AACADD
Catalog page	Page 373 (C-1-2013)
GTIN	4046356706506
Weight per piece (including packing)	14.452 g
Weight per piece (excluding packing)	14.452 g
Customs tariff number	85366990
Country of origin	DE



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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	8
Pitch	5.08 mm
Number of connections	8
Number of rows	1
Number of potentials	8
Mounting flange	Screw flange

### Electrical properties

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 mm²
Degree of pollution	3

### 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 mm² 2.5 mm²
Conductor cross section flexible	0.2 mm <sup>2</sup> 2.5 mm <sup>2</sup>



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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 mm <sup>2</sup> 2.5 mm <sup>2</sup>
2 conductors with same cross section, solid	0.2 mm² 1 mm²
2 conductors with same cross section, flexible	0.2 mm <sup>2</sup> 1.5 mm <sup>2</sup>
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
Stripping length	7 mm
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**



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Dimensional drawing	h
Pitch	5.08 mm
Width [w]	42.14 mm
Height [h]	15 mm
Length [I]	19 mm
Mounting	
Mounting type	Wave soldering
Drive form screw head	Slotted (L)
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.
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/1810175

cULus Recogni Approval ID: E60425	<b>zed</b> 5-19931014			
	Nominal voltage U <sub>N</sub>	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

II ( IEĈEx )	IECEx Approval ID: IECEx	CEx 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>(1)</b>	CCC Approval ID: 2021122313114375



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## Classifications

#### **ECLASS**

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



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## Environmental product compliance

ΕU	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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#### Accessories

#### CR-MSTB - Coding section

1734401

https://www.phoenixcontact.com/us/products/1734401

Coding section, inserted into the recess in the header or the inverted plug, red insulating material



#### MPS-MT - Test plug

0201744

https://www.phoenixcontact.com/us/products/0201744



Test plug, with solder connection up to 1 mm<sup>2</sup> conductor cross section, number of positions: 1, color: gray



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#### RPS - Reducing plug

0201647

https://www.phoenixcontact.com/us/products/0201647



Reducing plug, number of positions: 1, color: gray

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

1205053

https://www.phoenixcontact.com/us/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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#### SK 5,08/3,8:FORTL.ZAHLEN - Marker card

#### 0804293

https://www.phoenixcontact.com/us/products/0804293



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

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

#### 0805412

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

Marker card, Sheet, white, unlabeled, can be labeled with: Marker pen: without print, mounting type: adhesive, for terminal block width: 5.08 mm, lettering field size: 5.08 x 3.8 mm, Number of individual labels: 120





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#### B-STIFT - Marker pen

1051993

https://www.phoenixcontact.com/us/products/1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

#### IC 2,5/8-GF-5,08 EX - PCB header

1810395

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PCB headers, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, contact surface: Tin, contact connection type: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: IC 2,5/..-GF-EX, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm, number of solder pins per potential: 2, plug-in system: COMBICON MSTB 2,5 EX, Pin connector pattern alignment: Standard, locking: Screw locking mechanism, mounting: Threaded flange, type of packaging: packed in cardboard



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#### ICV 2,5/8-GF-5,08 EX - PCB header

1810502

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PCB headers, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, contact surface: Tin, contact connection type: Socket, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: ICV 2,5/..-GF-EX, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.6 mm, number of solder pins per potential: 2, plug-in system: COMBICON MSTB 2,5 EX, Pin connector pattern alignment: Standard, locking: Screw locking mechanism, mounting: Threaded flange, type of packaging: packed in cardboard

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