1861360

https://www.phoenixcontact.com/us/products/1861360



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PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 15, number of rows: 1, number of positions: 15, number of connections: 15, product range: FKCOR 2,5/..-ST, pitch: 5.08 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 90 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

### Your advantages

- · The conductor connection orthogonal to the direction of operation simplifies the cabling of DIN-rail-mountable devices
- · Time saving push-in connection, tools not required
- · Intuitive operation due to color-coded actuating push button
- · Quick and convenient testing using integrated test option
- · Can be combined with the MSTB 2,5 range

### Commercial data

Item number	1861360
Packing unit	50 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Sales key	AA03
Product key	AACFGC
GTIN	4055626125473
Weight per piece (including packing)	18.76 g
Weight per piece (excluding packing)	2.22 g
Customs tariff number	85366990
Country of origin	PL



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### Technical data

#### Product properties

Product line	COMBICON Connectors M
Product type	PCB connector
Product family	FKCOR 2,5/ST
Number of positions	15
Pitch	5.08 mm
Number of connections	15
Number of rows	1
Number of potentials	15

#### **Electrical properties**

Nominal current I <sub>N</sub>	12 A
Nominal voltage U <sub>N</sub>	320 V
Degree of pollution	3
Contact resistance	1.2 mΩ
Rated voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
Rated voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV

#### Connection data

Connection technology	
Connector system	COMBICON MSTB 2,5
Nominal cross section	2.5 mm <sup>2</sup>
Contact connection type	Socket
Interlock	
Locking type	without
Mounting flange	without
Conductor connection	
Connection method	Push-in spring connection
Conductor/PCB connection direction	90 °
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>
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	0.14 mm <sup>2</sup> 2.5 mm <sup>2</sup>
Cylindrical gauge a x b / diameter	2.8 mm x 2.0 mm / 2.3 mm

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Stripping length	10 mm
Specifications for ferrules without insulating collar	
recommended crimping tool	1212034 CRIMPFOX 6
ferrules without insulating collar, according to DIN 46228-1	Cross section: 0.25 mm <sup>2</sup> ; Length: 7 mm
	Cross section: 0.34 mm <sup>2</sup> ; Length: 7 mm
	Cross section: 0.5 mm <sup>2</sup> ; Length: 8 mm 10 mm
	Cross section: 0.75 mm <sup>2</sup> ; Length: 8 mm 10 mm
	Cross section: 1 mm <sup>2</sup> ; Length: 8 mm 10 mm
	Cross section: 1.5 mm <sup>2</sup> ; Length: 8 mm 10 mm
	Cross section: 2.5 mm <sup>2</sup> ; Length: 8 mm 10 mm
Specifications for ferrules with insulating collar	
recommended crimping tool	1212034 CRIMPFOX 6
ferrules with insulating collar, according to DIN 46228-4	Cross section: 0.14 mm <sup>2</sup> ; Length: 8 mm
	Cross section: 0.25 mm <sup>2</sup> ; Length: 8 mm 10 mm
	Cross section: 0.34 mm <sup>2</sup> ; Length: 8 mm 10 mm
	Cross section: 0.5 mm <sup>2</sup> ; Length: 8 mm 10 mm
	Cross section: 0.75 mm <sup>2</sup> ; Length: 8 mm 10 mm
	Cross section: 1.5 mm <sup>2</sup> ; Length: 8 mm 10 mm
	Cross section: 2.5 mm <sup>2</sup> ; Length: 10 mm

#### Material specifications

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	1
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
Material data – actuating element	
Color (Actuating element)	orange (2003)
Insulating material	PBT

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Insulating material group	Illa
CTI according to IEC 60112	275
Flammability rating according to UL 94	V0

#### Dimensions

Dimensional drawing	h w
Pitch	5.08 mm
Width [w]	76.07 mm
Height [h]	14.3 mm
Length [I]	23.7 mm

#### 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.

#### Mechanical tests

Conductor connection	
Specification	IEC 60999-1:1999-11
Result	Test passed
Test for conductor damage and slackening	
Specification	IEC 60999-1:1999-11
Result	Test passed
Repeated connection and disconnection	
Specification	IEC 60999-1:1999-11
Result	Test passed
Pull-out test	
Specification	IEC 60999-1:1999-11
Conductor cross section/conductor type/tractive force	0.2 mm² / solid / > 10 N
setpoint/actual value	0.2 mm² / flexible / > 10 N
	2.5 mm² / solid / > 50 N
	2.5 mm² / flexible / > 50 N
Insertion and withdrawal forces	
Result	Test passed
No. of cycles	25
Insertion strength per pos. approx.	10 N
Withdraw strength per pos. approx.	9 N



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Specification	IEC 60068-2-70:1995-12
Result	Test passed
olarization and coding	
Specification	IEC 60512-13-5:2006-02
Result	Test passed
/isual inspection	
Specification	IEC 60512-1-1:2002-02
Result	Test passed
Dimension check	
Specification	IEC 60512-1-2:2002-02
Result	Test passed
Frequency	10 - 150 - 10 Hz
/ibration test	
Specification	IEC 60068-2-6:2007-12
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 Hz 60.1 Hz)
Sweep speed	5g (60.1 Hz 150 Hz)
Test duration per axis	2.5 h
Ourability test	
Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	4.8 kV
Contact resistance R <sub>1</sub>	1.2 mΩ
Contact resistance R <sub>2</sub>	1.2 mΩ
Less all set filled as a last des	25
Insertion/withdrawal cycles	25
Insertion/withdrawai cycles Insulation resistance, neighboring positions	> 5 MΩ
Insulation resistance, neighboring positions	
Insulation resistance, neighboring positions	
Insulation resistance, neighboring positions	> 5 MΩ
Insulation resistance, neighboring positions Climatic test Specification	> 5 MΩ ISO 6988:1985-02
Insulation resistance, neighboring positions Climatic test Specification Corrosive stress	> 5 MΩ ISO 6988:1985-02 0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/1 cycle
Insulation resistance, neighboring positions Climatic test Specification Corrosive stress Thermal stress	> 5 MΩ         ISO 6988:1985-02         0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/1 cycle         105 °C/168 h
Insulation resistance, neighboring positions Climatic test Specification Corrosive stress Thermal stress Power-frequency withstand voltage	> 5 MΩ           ISO 6988:1985-02           0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/1 cycle           105 °C/168 h

Ambient temperature (operation)	-40 °C 105 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C 70 °C
Relative humidity (storage/transport)	30 % 70 %
Ambient temperature (assembly)	-5 °C 100 °C

Electrical tests



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Thermal test   Test group C		
Specification	IEC 60512-5-1:2002-02	
Tested number of positions	24	
Insulation resistance		
Specification	IEC 60512-3-1:2002-02	
Insulation resistance, neighboring positions	> 5 MΩ	
Air clearances and creepage distances		
Specification	IEC 60664-1:2007-04	
Insulating material group	1	
Comparative tracking index (IEC 60112)	CTI 600	
Rated insulation voltage (III/3)	250 V	
Rated surge voltage (III/3)	4 kV	
minimum clearance value - non-homogenous field (III/3)	3 mm	
minimum creepage distance (III/3)	3.2 mm	
Rated insulation voltage (III/2)	320 V	
Rated surge voltage (III/2)	4 kV	
minimum clearance value - non-homogenous field (III/2)	3 mm	
minimum creepage distance (III/2)	3 mm	
Rated insulation voltage (II/2)	630 V	
Rated surge voltage (II/2)	4 kV	
minimum clearance value - non-homogenous field (II/2)	3 mm	
minimum creepage distance (II/2)	3.2 mm	

#### Packaging specifications

Type of packaging

packed in cardboard

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### Classifications

#### ECLASS

ECLASS-11.0	27460202
ECLASS-12.0	27460202
ECLASS-13.0	27460202

#### ETIM

	ETIM 9.0	EC002638	
UNSPSC			
	UNSPSC 21.0	39121400	

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### Environmental product compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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