

1861823

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Sn, 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-LR, 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: Lock-and-release locking system, mounting method: Lock & Release ejector lever, 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
- · Automatic locking and intuitive release through Lock and Release operating lever in contrasting color
- · Can be combined with the MSTB 2,5 range

Commercial data

Item number	1861823
Packing unit	50 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Sales key	AA03
Product key	AACFGE
GTIN	4055626125183
Weight per piece (including packing)	19.986 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 type	PCB connector
Product family	FKCOR 2,5/ST-LR
Product line	COMBICON Connectors M
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 _N	12 A
Nominal voltage U _N	320 V
Contact resistance	1.3 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 mm²
Contact connection type	Socket

Interlock

Locking type	Lock-and-release locking system
Mounting flange	Lock & Release ejector lever

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 ² 2.5 mm ²
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	0.14 mm² 2.5 mm²
Cylindrical gauge a x b / diameter	2.8 mm x 2.0 mm / 2.3 mm
Stripping length	10 mm



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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 mm²; Length: 7 mm
	Cross section: 0.34 mm²; Length: 7 mm
	Cross section: 0.5 mm²; Length: 8 mm 10 mm
	Cross section: 0.75 mm ² ; Length: 8 mm 10 mm
	Cross section: 1 mm²; Length: 8 mm 10 mm
	Cross section: 1.5 mm²; Length: 8 mm 10 mm
	Cross section: 2.5 mm²; 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 mm²; Length: 8 mm
	Cross section: 0.25 mm²; Length: 8 mm 10 mm
	Cross section: 0.34 mm²; Length: 8 mm 10 mm
	Cross section: 0.5 mm²; Length: 8 mm 10 mm
	Cross section: 0.75 mm²; Length: 8 mm 10 mm
	Cross section: 1.5 mm²; Length: 8 mm 10 mm
	Cross section: 2.5 mm²; Length: 10 mm

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	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
Insulating material group	Illa



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	OT!	075
	CTI according to IEC 60112	275
	Flammability rating according to UL 94	V0
Din	nensions	
	Dimensional drawing	h
	Pitch	5.08 mm
	Width [w]	85.2 mm
	Height [h]	14.7 mm
	Length [I]	29.1 mm
No	tes	
	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.
	chanical tests	
C	Conductor connection	
	Specification	IEC 60999-1:1999-11
	Result	Test passed
Т	est for conductor damage and slackening	
	Specification	IEC 60999-1:1999-11
	Result	Test passed
F	Repeated connection and disconnection	
	Specification	IEC 60999-1:1999-11
	Result	Test passed
F	Pull-out test	
·	Specification	IEC 60999-1:1999-11
	Conductor cross section/conductor type/tractive force setpoint/actual value	0.2 mm² / solid / > 10 N
		0.2 mm² / flexible / > 10 N
		2.5 mm² / solid / > 50 N
		2.5 mm² / flexible / > 50 N
lı	nsertion and withdrawal forces	
	Specification	IEC 60512-13-2:2006-02
	Result	Test passed
	No. of cycles	25
	Insertion strength per pos. approx.	8 N
	Withdraw strength per pos. approx.	11 N



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	IEC 60068-2-70:1995-12
Result	Test passed
Polarization 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
Specification	IEC 60068-2-6:2007-12
Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 Hz 60.1 Hz)
Acceleration	5g (60.1 Hz 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis
Durability test	
Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	4.8 kV
Impulse withstand voltage at sea level Contact resistance R ₁	4.8 kV 1.3 mΩ
Contact resistance R ₁	1.3 mΩ
Contact resistance R ₁ Contact resistance R ₂	1.3 mΩ 1.3 mΩ
Contact resistance R ₁ Contact resistance R ₂ Insertion/withdrawal cycles	1.3 mΩ 1.3 mΩ 25
Contact resistance R ₁ Contact resistance R ₂ Insertion/withdrawal cycles Insulation resistance, neighboring positions	1.3 mΩ 1.3 mΩ 25
Contact resistance R ₁ Contact resistance R ₂ Insertion/withdrawal cycles Insulation resistance, neighboring positions	1.3 mΩ 1.3 mΩ 25 > 5 MΩ
Contact resistance R ₁ Contact resistance R ₂ Insertion/withdrawal cycles Insulation resistance, neighboring positions Climatic test Specification	1.3 mΩ 1.3 mΩ 25 > 5 MΩ ISO 6988:1985-02
Contact resistance R ₁ Contact resistance R ₂ Insertion/withdrawal cycles Insulation resistance, neighboring positions Climatic test Specification Corrosive stress	1.3 mΩ 1.3 mΩ 25 > 5 MΩ ISO 6988:1985-02 0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle
Contact resistance R ₁ Contact resistance R ₂ Insertion/withdrawal cycles Insulation resistance, neighboring positions Climatic test Specification Corrosive stress Thermal stress	1.3 mΩ 1.3 mΩ 25 > 5 MΩ ISO 6988:1985-02 0.2 dm 3 SO $_2$ on 300 dm 3 /40 °C/1 cycle 100 °C/168 h
Contact resistance R ₁ Contact resistance R ₂ Insertion/withdrawal cycles Insulation resistance, neighboring positions Climatic test Specification Corrosive stress Thermal stress Power-frequency withstand voltage	1.3 mΩ 1.3 mΩ 25 > 5 MΩ ISO 6988:1985-02 0.2 dm 3 SO $_2$ on 300 dm 3 /40 °C/1 cycle 100 °C/168 h
Contact resistance R ₁ Contact resistance R ₂ Insertion/withdrawal cycles Insulation resistance, neighboring positions Climatic test Specification Corrosive stress Thermal stress Power-frequency withstand voltage	1.3 mΩ 1.3 mΩ 25 > 5 MΩ ISO 6988:1985-02 0.2 dm 3 SO $_2$ on 300 dm 3 /40 °C/1 cycle 100 °C/168 h 2.21 kV
Contact resistance R ₁ Contact resistance R ₂ Insertion/withdrawal cycles Insulation resistance, neighboring positions Climatic test Specification Corrosive stress Thermal stress Power-frequency withstand voltage	1.3 mΩ 1.3 mΩ 25 > 5 MΩ ISO 6988:1985-02 0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle 100 °C/168 h 2.21 kV
Contact resistance R ₁ Contact resistance R ₂ Insertion/withdrawal cycles Insulation resistance, neighboring positions Climatic test Specification Corrosive stress Thermal stress Power-frequency withstand voltage Shocks Specification Pulse shape	1.3 mΩ 1.3 mΩ 25 > 5 MΩ ISO 6988:1985-02 0.2 dm 3 SO $_2$ on 300 dm 3 /40 °C/1 cycle 100 °C/168 h 2.21 kV IEC 60068-2-27:2008-02 Semi-sinusoidal



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Ambient conditions

Ambient temperature (operation)	-40 °C 100 °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

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	I
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

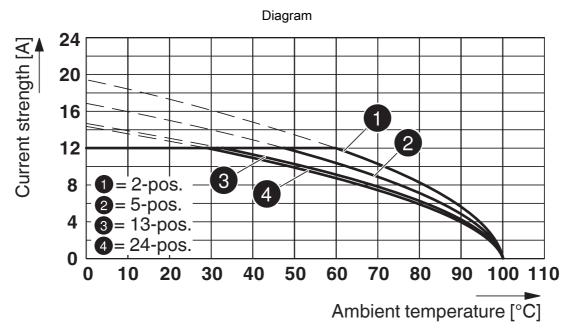
Type of packaging	packed in cardboard
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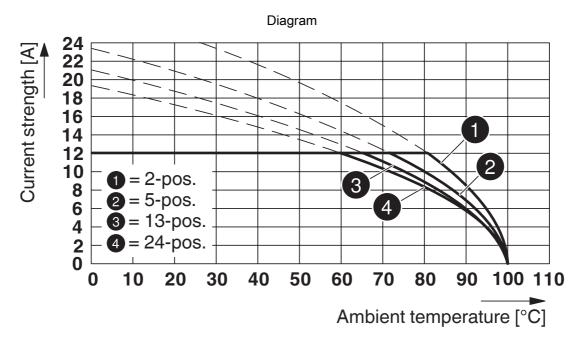
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Drawings



Type: FKCO(R/W) 2,5/...-ST-5,08(-LR) with MSTBVA 2,5/...-ST-5,08(-LR)



Type: FKCO(R/W) 2,5/...-ST-5,08-LR with MSTBA 2,5/...-G-5,08-LR



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1861823

SUL Recognized Approval ID: E60425-19931011				
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
Use group F				
	300 V	12 A	26 - 12	-

cULus Recognized Approval ID: E60425-19931011				
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
Use group B				
	300 V	12 A	26 - 12	-
Use group D				
	300 V	10 A	26 - 12	-



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Classifications

ECLASS

	ECLASS-11.0	27460202		
	ECLASS-12.0	27460202		
	ECLASS-13.0	27460202		
ET	ETIM			
	ETIM 9.0	EC002638		
UNSPSC				
	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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