

1803073

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DIN rail 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: Pin, number of potentials: 14, number of rows: 1, number of positions: 14, number of connections: 14, product range: MSTBVK 2,5/..-GF, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, mounting: DIN rail mounting, conductor/PCB connection direction: 0 °, plug-in system: COMBICON MSTB 2,5, locking: Screw locking mechanism, mounting method: Threaded flange, type of packaging: packed in cardboard

Your advantages

- Direct plug-in block for mounting on NS 15 DIN rail
- · Can be combined with the MSTB 2,5 range
- · Well-known connection principle allows worldwide use

Commercial data

Item number	1803073
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AA03
Product key	AACMFB
GTIN	4017918045517
Weight per piece (including packing)	36.116 g
Weight per piece (excluding packing)	34.682 g
Customs tariff number	85366990
Country of origin	PL



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Technical data

Product properties

Product type	DIN rail connector
Product family	MSTBVK 2,5/GF
Product line	COMBICON Connectors M
Туре	DIN rail mounting
Number of positions	14
Pitch	5.08 mm
Number of connections	14
Number of rows	1
Number of potentials	14
Mounting type	Threaded flange

Electrical properties

Properties

Nominal current I _N	12 A
Nominal voltage U _N	320 V
Contact resistance	1.8 mΩ
Rated voltage (III/3)	320 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

Туре	DIN rail mounting
Connector system	COMBICON MSTB 2,5
Nominal cross section	2.5 mm²
Contact connection type	Pin

Interlock

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

Conductor connection

Connection method	Screw connection with tension sleeve
Connection direction of the conductor to plug-in direction	0°
Conductor cross-section rigid	0.2 mm² 2.5 mm²
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 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 mm ² 1.5 mm ²
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

Mounting

Mounting type	DIN rail mounting
Flange	
Tightening torque	0.3 Nm

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

Notes



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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.
mensions	
Dimensional drawing	h
Pitch	5.08 mm
Width [w]	82.44 mm
Height [h]	29.2 mm
Length [I]	27.21 mm
echanical tests Test for conductor damage and slackening	
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 mm ² / solid / > 10 N
setpoint/actual value	0.2 mm ² / flexible / > 10 N
	2.5 mm² / solid / > 50 N
	2.5 mm² / flexible / > 50 N
nsertion and withdrawal forces	
Result	Test passed
No. of cycles	25
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	4 N
Forque test	
Specification	IEC 60999-1:1999-11
Contact holder in insert	
Specification	IEC 60512-15-1:2008-05
Contact holder in insert Requirements >20 N	Test passed
Resistance of inscriptions	
Specification	IEC 60068-2-70:1995-12
Result	Test passed
Polarization and coding	
Specification	IEC 60512-13-5:2006-02



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Result	Test passed
Visual inspection	
Specification	IEC 60512-1-1:2002-02
Result	Test passed
Dimension check	
Specification	IEC 60512-1-2:2002-02
Result	Test passed

Electrical tests

Thermal test | Test group C

Specification	IEC 60512-5-1:2002-02
Tested number of positions	20

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)	320 V	
Rated surge voltage (III/3)	4 kV	
minimum clearance value - non-homogenous field (III/3)	3 mm	
minimum creepage distance (III/3)	4 mm	
Note on connection cross section	With connected conductor 2,5 mm².	
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)	1.6 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	

Environmental and real-life conditions

Vibration test

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



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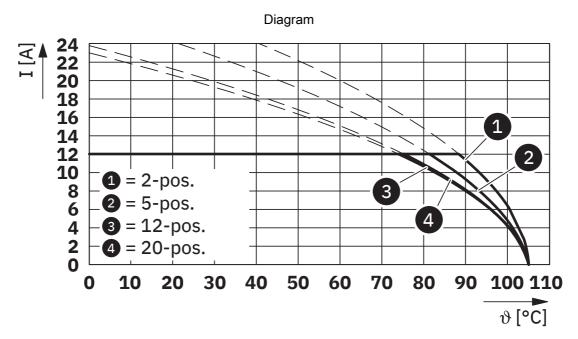
Test directions	X-, Y- and Z-axis
urability test	
Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	4.8 kV
Contact resistance R ₁	1.8 mΩ
Contact resistance R ₂	1.8 mΩ
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 5 MΩ
imatic test	
Specification	ISO 6988:1985-02
Corrosive stress	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle
Thermal stress	105 °C/168 h
Power-frequency withstand voltage	2.21 kV
nocks	
Specification	IEC 60068-2-27:2008-02
Pulse shape	Semi-sinusoidal
Acceleration	30g
Shock duration	18 ms
Test directions	X-, Y- and Z-axis (pos. and neg.)
nbient conditions	
Ambient temperature (operation)	-40 °C 105 °C (dependent on the derating curve)
	40.00
Ambient temperature (storage/transport)	-40 °C 70 °C
Ambient temperature (storage/transport) Relative humidity (storage/transport)	-40 °C 70 °C



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Drawings



Type: MSTB 2,5/...-STF-5,08 with MSTBVK 2,5/...-GF-5,08



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1803073

CSA Approv	ral ID: 13631			
	Nominal voltage \mathbf{U}_{N}	Nominal current I _N	Cross section AWG	Cross section mm ²
В				
	300 V	10 A	28 - 12	-
D				
	300 V	10 A	28 - 12	-

c A77 08	cULus Recognized Approval ID: E60425-19931014				
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
В					
		250 V	12 A	30 - 12	-
D					
		300 V	10 A	30 - 12	-

	VDE approval of drawings Approval ID: 40050694				
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
keine					
		250 V	12 A	-	-



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Classifications

ECLASS

	ECLASS-13.0	27250117
	ECLASS-15.0	27250117
E 7	TIM	
	IIVI	
	ETIM 9.0	EC000897
U	NSPSC	
	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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