

1788855

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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: 15, number of rows: 1, number of positions: 15, number of connections: 15, product range: MSTBVK 2,5/..-G, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, plug-in system: COMBICON MSTB 2,5, locking: without, mounting method: without, 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	1788855
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AA03
Product key	AACMFA
GTIN	4017918043919
Weight per piece (including packing)	35.73 g
Weight per piece (excluding packing)	34.494 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/G
Product line	COMBICON Connectors M
Туре	DIN rail mounting
Number of positions	15
Pitch	5.08 mm
Number of connections	15
Number of rows	1
Number of potentials	15
Mounting flange	without

Electrical properties

Properties

Nominal current I_N 12 ANominal voltage U_N 320 VContact resistance3 mΩRated voltage (III/3)320 VRated surge voltage (III/3)4 kVRated voltage (III/2)320 VRated voltage (III/2)4 kVRated surge voltage (III/2)630 VRated surge voltage (III/2)4 kV	•	
Contact resistance 3 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 (III/2) 630 V	Nominal current I _N	12 A
Rated voltage (III/3) Rated surge voltage (III/3) Rated voltage (III/2) Rated surge voltage (III/2) Rated surge voltage (III/2) 4 kV Rated voltage (III/2) 630 V	Nominal voltage U _N	320 V
Rated surge voltage (III/3) Rated voltage (III/2) Rated surge voltage (III/2) Rated voltage (III/2) 630 V	Contact resistance	3 mΩ
Rated voltage (III/2) Rated surge voltage (III/2) Rated voltage (III/2) 630 V	Rated voltage (III/3)	320 V
Rated surge voltage (III/2) 4 kV Rated voltage (II/2) 630 V	Rated surge voltage (III/3)	4 kV
Rated voltage (II/2) 630 V	Rated voltage (III/2)	320 V
	Rated surge voltage (III/2)	4 kV
Rated surge voltage (II/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	without
Mounting flange	without

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 mm ² 2.5 mm ²
Conductor cross section flexible	0.2 mm² 2.5 mm²
Conductor cross section AWG	24 12



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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 mm ² 1.5 mm ²
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
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

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	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

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.

Dimensions



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Dimensional drawing	h
Pitch	5.08 mm
Width [w]	77.64 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 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.	8 N
Withdraw strength per pos. approx.	7 N
Torque test	
Specification	IEC 60999-1:1999-11
Resistance of inscriptions	JEO 00000 0 70 4005 40
Specification	IEC 60068-2-70:1995-12
Result	Test passed
Polarization and coding	
Specification	IEC 60512-13-5:2006-02
Result	Test passed
result	
Visual inspection Specification	IEC 60512-1-1:2002-02
Visual inspection	IEC 60512-1-1:2002-02 Test passed
Visual inspection Specification Result	
Visual inspection Specification	



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Electrical tests

Thermal	tact	Tact	aroun	$^{\circ}$
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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)	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
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
Contact resistance R ₁	3 mΩ
Contact resistance R ₂	$3.1~\text{m}\Omega$
Insertion/withdrawal cycles	25



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Climatic test

Specification	ISO 6988:1985-02
Corrosive stress	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle
Thermal stress	100 °C/168 h
Power-frequency withstand voltage	2.21 kV
indient conditions	
nbient conditions	
	-40 °C 100 °C (dependent on the derating curve)
Ambient temperature (operation)	-40 °C 100 °C (dependent on the derating curve)
Ambient temperature (operation) Ambient temperature (storage/transport) Relative humidity (storage/transport)	(1)

Packaging specifications

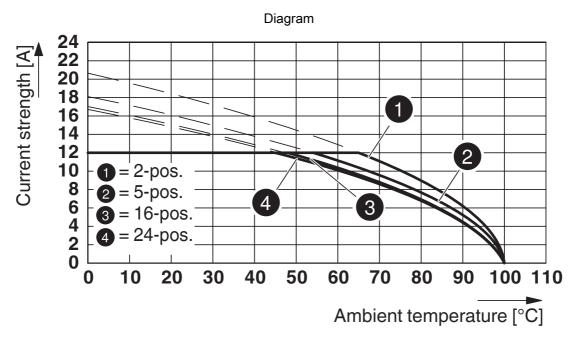
Type of packaging	packed in cardboard



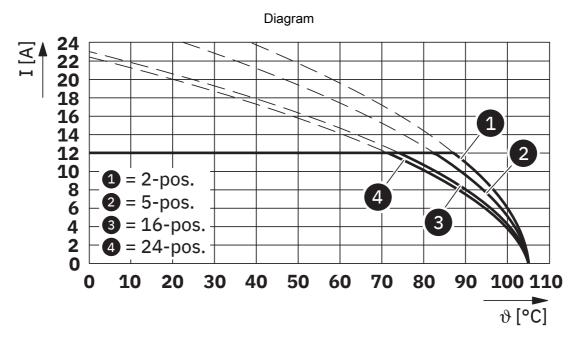
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Drawings



Type: MVSTBR 2,5/...-ST-5,08 with MSTBVK 2,5/...-G-5,08



Type: MSTB 2,5/...-ST-5,08 with MSTBVK 2,5/...-G-5,08



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1788855

CSA Approval ID: 13631				
	Nominal voltage U_N	Nominal current I _N	Cross section AWG	Cross section mm ²
Use group B				
	300 V	10 A	28 - 12	-
Use group D				
	300 V	10 A	28 - 12	-

cULus Recognized Approval ID: E60425-19931014				
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
Use group B				
	250 V	12 A	30 - 12	-
Use group 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
		250 V	12 A	-	-



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Classifications

ECLASS

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	ECLASS-13.0	27250117				
ΕT	ETIM					
	ETIM 9.0	EC001284				
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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