

Printed-circuit board connector - IFMC 1,5/ 2-ST-3,5-RN - 1844109

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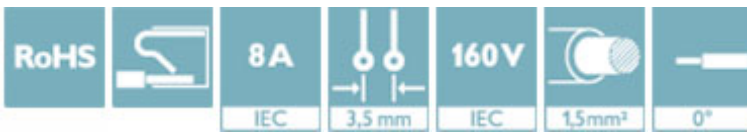
PCB connector, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 2, pitch: 3.5 mm, connection method: Push-in spring connection, color: green, contact surface: Tin



The figure shows a 10-position version of the product

Why buy this product

- Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- Intuitive use through colour coded actuation lever
- Inverted connector with pin contacts for touch-proof device outputs or free-hanging cable/cable connections
- Intuitive locking mechanism prevents accidental disconnection



Key Commercial Data

Packing unit	50 STK
GTIN	
GTIN	4046356947459

Technical data

Item properties

Brief article description	Printed-circuit board connector
Range of articles	IFMC 1,5/..-ST-RN
Pitch	3.5 mm
Type of contact	Male connector
Plug-in system	MINI COMBICON
Number of positions	2
Connection method	Push-in spring connection
Locking	Engagement nose
Number of levels	1

Electrical parameters

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Electrical parameters

Rated current	8 A
Rated insulation voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV

Connection capacity

Conductor cross section solid	0.14 mm ² ... 1.5 mm ²
Conductor cross section flexible	0.14 mm ² ... 1.5 mm ²
Conductor cross section AWG / kcmil	24 ... 16
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 1.5 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.14 mm ² ... 0.75 mm ²

Specifications for ferrules

Recommended crimping pliers	1212034 CRIMPFOX 6
Ferrules without insulating collar, according to DIN 46228-1	Cross section: 0.25 mm ² ; Length: 5 mm ... 7 mm
	Cross section: 0.5 mm ² ; Length: 8 mm ... 10 mm
	Cross section: 0.75 mm ² ; Length: 8 mm ... 10 mm
	Cross section: 1 mm ² ; Length: 8 mm ... 10 mm
	Cross section: 1.5 mm ² ; Length: 10 mm
Recommended crimping pliers	1212034 CRIMPFOX 6
Ferrules with insulating collar, according to DIN 46228-4	Cross section: 0.14 mm ² ; Length: 8 mm
	Cross section: 0.34 mm ² ; Length: 8 mm ... 10 mm
	Cross section: 0.5 mm ² ; Length: 8 mm ... 10 mm
	Cross section: 0.75 mm ² ; Length: 10 mm

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

Housing color	green
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

Material data – actuating element

Insulating material	PBT
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Material data – actuating element

CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

Dimensions for the product

Length [l]	24.6 mm
Width [w]	10.6 mm
Height [h]	7.8 mm
Pitch	3.5 mm
Dimension a	3.5 mm

Packaging information

Type of packaging	packed in cardboard
Pieces per package	50
Denomination packing units	Pcs.

Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C

Termination and connection method

Conductor connection test	The stripped-off ends of the largest conductor can be completely inserted in the opening of the terminal point without using excessive force.
Test result	Test passed
Test – repeated connection and release	IEC 60999-1:1999-11
	Test passed
Test for conductor damage and slackening	IEC 60999-1:1999-11
	Test passed

Pull-out test

Pull-out test	IEC 60999-1:1999-11
	Test passed
Conductor cross section / conductor type / tensile force	0.2 mm ² solid > 0.2 mm ² / solid / > 10 N
	0.2 mm ² flexible > 0.2 mm ² / flexible / > 10 N
	1.5 mm ² solid > 1.5 mm ² / solid / > 40 N
	1.5 mm ² flexible > 1.5 mm ² / flexible / > 40 N
	flexible >

Mechanical tests according to standard

Test specification	IEC 61984
Visual examination	Test passed IEC 60512-1-1:2002-02
Dimensional test	Test passed IEC 60512-1-2:2002-02
Resistance of marking	Test passed IEC 60068-2-70:1995-12
Result	Test passed

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Mechanical tests according to standard

Specification	IEC 60512-13-2:2006-02
No. of cycles	25
Insertion strength per pos. approx.	5 N
Withdraw strength per pos. approx.	4 N
Polarization and coding	Test passed IEC 60512-13-5:2006-02

Air clearances and creepage distances

Insulating material group	I
Comparative tracking index (IEC 60112:2003-01)	CTI 600
Voltage	160 V
Rated insulation voltage (III/3)	160 V
Rated insulation voltage (III/2)	160 V
Rated insulation voltage (II/2)	320 V
Rated surge voltage (III/3)	2.5 kV
Rated surge voltage (III/2)	2.5 kV
Rated surge voltage (II/2)	2.5 kV
Minimum clearance - inhomogeneous field (III/3)	1.5 mm
Minimum clearance - inhomogeneous field (III/2)	1.5 mm
Minimum clearance - inhomogeneous field (II/2)	1.5 mm
Minimum creepage distance value (III/3)	2 mm
Minimum creepage distance value (III/2)	1.5 mm
Minimum creepage distance value (II/2)	1.6 mm

Electrical tests - Function

Specification	IEC 60999-1:1999-11
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Temperature cycles

Specification	IEC 60999-1:1999-11
Test current (minimum cross section)	5 A AC
Test current (maximum cross section)	8 A AC
Temperature cycles	192

Current carrying capacity / derating curves

Specification	IEC 61984
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Mechanical tests (A)

Test specification	IEC 61984
Insertion strength per pos. approx.	5 N
Withdraw strength per pos. approx.	4 N
Polarization when inserted requirement >20 N	Test passed

Durability tests (B)

Specification	IEC 60512-9-1:2010-03
Contact resistance R ₁	2.7 mΩ

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Durability tests (B)

Insertion/withdrawal cycles	25
Contact resistance R_2	2.8 m Ω
Impulse withstand voltage at sea level	2.95 kV
Power-frequency withstand voltage	1.39 kV
Insulation resistance, neighboring positions	> 4 T Ω

Climatic tests (D)

Specification	ISO 6988:1985-02
Cold stress	-40 °C/2 h
Thermal stress	100 °C/168 h
Corrosive stress	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle
Impulse withstand voltage at sea level	2.95 kV
Power-frequency withstand voltage	1.39 kV

Environmental and durability tests (E)

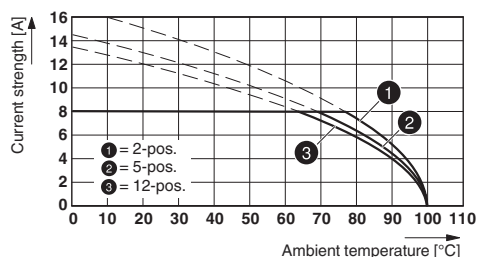
Specification	IEC 61984:2008-10
Result, degree of protection, IP code	Finger safety with IP20 test finger

Environmental Product Compliance

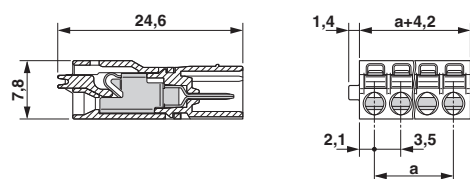
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Drawings

Diagram



Dimensional drawing



Type: FMC 1,5/...-ST-3,5-RF with IFMC 1,5/...-ST-3,5-RN

Approvals

Approvals

Approvals


cULus Recognized / VDE Gutachten mit Fertigungsüberwachung / IECCE CB Scheme / EAC


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Approvals


Ex Approvals

Approval details

cULus Recognized  http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E60425-19920306		
	B	C
Nominal voltage UN	150 V	50 V
Nominal current IN	8 A	8 A
mm ² /AWG/kcmil	24-16	24-16

VDE Gutachten mit Fertigungsüberwachung  http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx 40011723	
Nominal voltage UN	160 V
Nominal current IN	8 A
mm ² /AWG/kcmil	0.2-1.5

IECEE CB Scheme  http://www.iecee.org/ DE1-60604-B1B2	
Nominal voltage UN	160 V
Nominal current IN	8 A
mm ² /AWG/kcmil	0.2-1.5

EAC 	B.01742
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PHOENIX CONTACT GmbH & Co. KG
 Flachsmarktstr. 8
 32825 Blomberg
 Germany
 Tel. +49 5235 300
 Fax +49 5235 3 41200
<http://www.phoenixcontact.com>