Printed-circuit board connector - IFMC 1,5/10-ST-3,5-RN - 1844183

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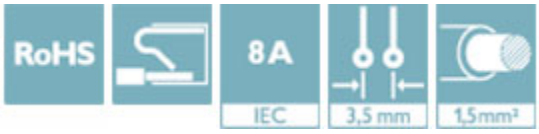
PCB connector, nominal current: 8 A, rated voltage (III/2): 160 V, nominal cross section: 1.5 mm², number of positions: 10, pitch: 3.5 mm, connection method: Push-in spring connection, color: green, contact surface: Tin

Your advantages

- 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	1 pc
Minimum order quantity	50 pc
GTIN	4 046356 947534
GTIN	4046356947534
Weight per Piece (excluding packing)	6.000 g
Custom tariff number	85366990
Country of origin	Slovakia

Technical data

Item properties

Brief article description	Printed-circuit board connector
Plug-in system	MINI COMBICON
Type of contact	Male connector
Range of articles	IFMC 1,5/..-ST-RN

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Technical data

Item properties

Pitch	3.5 mm
Number of positions	10
Connection method	Push-in spring connection
Locking	Engagement nose
Number of levels	1
Number of connections	10
Number of potentials	10

Electrical parameters

Nom. voltage	160 V

Connection capacity

Connection method	Push-in spring connection
Conductor cross section solid	0.14 mm² ... 1.5 mm²
Conductor cross section flexible	0.14 mm² ... 1.5 mm²
Conductor cross section AWG / kcmil	24 ... 16
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 1.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.14 mm² ... 0.75 mm²
Stripping length	10 mm

Specifications for ferrules

Recommended crimping pliers	1212034 CRIMPFOX 6
Ferrules without insulating collar, according to DIN 46228-1	Cross section: 0.25 mm²; Length: 5 mm ... 7 mm
	Cross section: 0.34 mm²; Length: 7 mm
	Cross section: 0.5 mm²; Length: 8 mm ... 10 mm
	Cross section: 0.75 mm²; Length: 8 mm ... 10 mm
	Cross section: 1 mm²; Length: 8 mm ... 10 mm
	Cross section: 1.5 mm²; Length: 10 mm
Recommended crimping pliers	1212034 CRIMPFOX 6
Ferrules with insulating collar, according to DIN 46228-4	Cross section: 0.14 mm²; Length: 8 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: 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)

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Technical data

Material data - contact

Metal surface contact area (top layer)	Tin (4 - 8 µm Sn)

Material data - housing

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

Dimensions for the product

Length [l]	24.6 mm
Width [w]	38.6 mm
Height [h]	7.8 mm
Pitch	3.5 mm
Dimension a	31.5 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 ... 100 °C (dependent on the derating curve)

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

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Technical data

Pull-out test

Pull-out test	IEC 60999-1:1999-11
	Test passed
Conductor cross section / conductor type / tensile force	0.2 mm² / solid / > 10 N
	0.2 mm² / flexible / > 10 N
	1.5 mm² / solid / > 40 N
	1.5 mm² / flexible / > 40 N

Mechanical tests according to standard

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
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

Clearances and creepage distances	IEC 60664-1:2007-04
Specification	IEC 60664-1:2007-04
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

Temperature cycles

Specification	IEC 60999-1:1999-11

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Technical data

Temperature cycles

Test current (minimum cross section)	5 A AC
Test current (maximum cross section)	8 A AC
Temperature cycles	192

Current carrying capacity / derating curves

Mechanical tests (A)

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

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

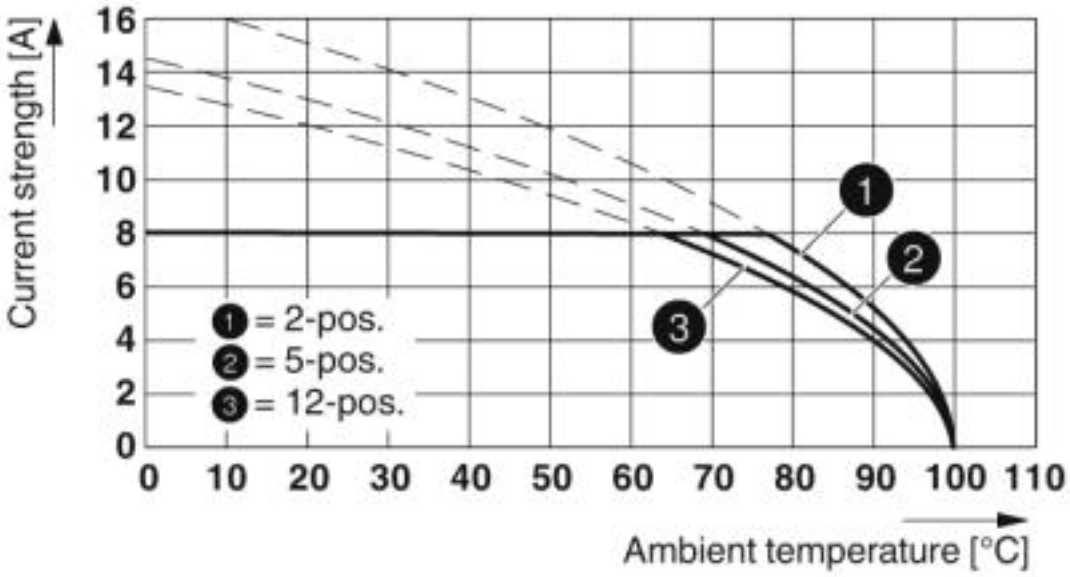
Environmental Product Compliance

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

Drawings

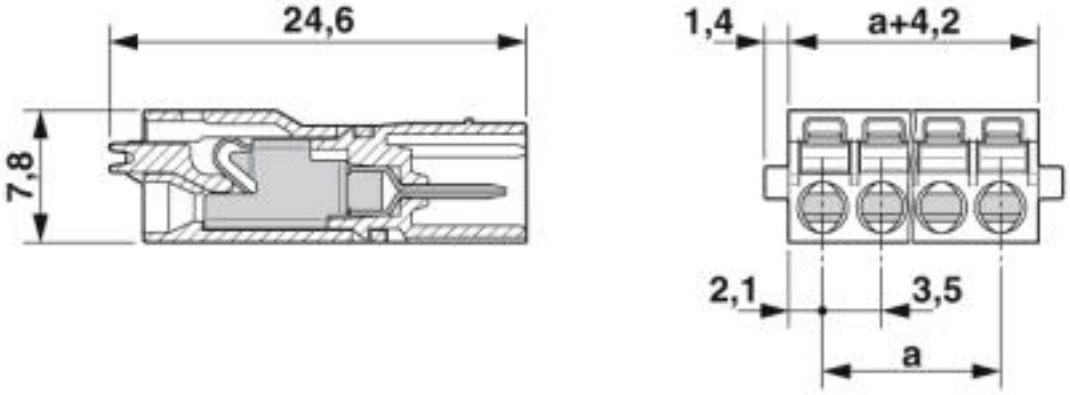
Printed-circuit board connector - IFMC 1,5/10-ST-3,5-RN - 1844183

Diagram



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

Dimensional drawing



Classifications

eCl@ss

eCl@ss 4.0	27260700
eCl@ss 4.1	27260700
eCl@ss 5.0	27260700
eCl@ss 5.1	27260700
eCl@ss 6.0	27260700

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Classifications

eCl@ss

eCl@ss 7.0	27440309
eCl@ss 8.0	27440309
eCl@ss 9.0	27440309

ETIM

ETIM 5.0	EC002637
ETIM 6.0	EC002638
ETIM 7.0	EC002638

UNSPSC

UNSPSC 13.2	39121409
UNSPSC 18.0	39121409
UNSPSC 19.0	39121409
UNSPSC 20.0	39121409
UNSPSC 21.0	39121409

Approvals

Approvals

Approvals

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

Ex Approvals

Approval details

IECEE CB Scheme	CB scheme	http://www.iecee.org/	DE1-60987-B1B2

Nominal voltage UN	160 V
Nominal current IN	8 A
mm²/AWG/kcmil	0.2-1.5

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Approvals

VDE Gutachten mit Fertigungsüberwachung	VDE	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
mm²/AWG/kcmil	0.2-1.5

EAC	EAC	B.01742

cULus Recognized	cULus	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
mm²/AWG/kcmil	24-16	24-16

Accessories

Accessories

Cable end sleeve

Ferrule - A 0,25- 5 - 3202465

Ferrule, length: 5 mm, color: silver

Ferrule - A 0,25- 7 - 3202478

Ferrule, length: 7 mm, color: silver

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Accessories

Ferrule - A 0,34- 7 - 3009202

Ferrule, length: 7 mm, color: silver

Ferrule - A 0,5 - 8 - 3202481

Ferrule, length: 8 mm, color: silver

Ferrule - A 0,5 -10 - 3202494

Ferrule, length: 10 mm, color: silver

Ferrule - A 0,75- 8 - 3202504

Ferrule, length: 8 mm, color: silver

Ferrule - A 0,75-10 - 3200234

Ferrule, length: 10 mm, color: silver

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Accessories

Ferrule - A 1 - 8 - 3202517

Ferrule, length: 8 mm, color: silver

Ferrule - A 1 -10 - 3200250

Ferrule, length: 10 mm, color: silver

Ferrule - A 1,5 -10 - 3200276

Ferrule, length: 10 mm, color: silver

Ferrule - AI 0,14- 8 GY -1000 - 3203011

Ferrule, sleeve length: 8 mm, length: 12.5 mm, color: gray

Ferrule - AI 0,34- 8 TQ - 3203066

Ferrule, sleeve length: 8 mm, length: 12.5 mm, color: turquoise

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Accessories

Ferrule - AI 0,34-10 TQ - 3241129

Ferrule, sleeve length: 10 mm, length: 14.5 mm, color: turquoise

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Ferrule - AI 0,5 - 8 WH - 3200014

Ferrule, sleeve length: 8 mm, length: 14 mm, color: white

Ferrule - AI 0,5 -10 WH - 3201275

Ferrule, sleeve length: 10 mm, length: 16 mm, color: white

Ferrule - AI 0,75- 8 GY - 3200519

Ferrule, sleeve length: 8 mm, length: 14 mm, color: gray

Ferrule - AI 0,75-10 GY - 3201288

Ferrule, sleeve length: 10 mm, length: 16 mm, color: gray

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Accessories

Ferrule - AI 0,25- 8 YE - 3203037

Ferrule, sleeve length: 8 mm, length: 12.5 mm, color: yellow

Crimping tool

Crimping pliers - CRIMPFOX 6 - 1212034

Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm² ... 6.0 mm², lateral entry, trapezoidal crimp

Marker pen

Marker pen - B-STIFT - 1051993

Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

Screwdriver tools

Screwdriver - SZS 0,4X2,5 VDE - 1205037

Screwdriver, slot-headed, VDE insulated, size: 0.4 x 2.5 x 80 mm, 2-component grip, with non-slip grip

Terminal marking

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Accessories

Marker card - SK U/2,8 WH:UNBEDRUCKT - 0803883

Marker card, Sheet, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, Office printing systems, mounting type: adhesive, for terminal block width: 210 mm, lettering field size: 186 x 2.8 mm, Number of individual labels: 3600

Marker card - SK U/2,8 WH:UNBEDRUCKT - 0803883

Marker card, Sheet, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, Office printing systems, mounting type: adhesive, for terminal block width: 210 mm, lettering field size: 186 x 2.8 mm, Number of individual labels: 3600

Additional products

Printed-circuit board connector - FMC 1,5/10-ST-3,5-RF - 1952102

PCB connector, nominal current: 8 A, rated voltage (III/2): 160 V, nominal cross section: 1.5 mm², number of positions: 10, pitch: 3.5 mm, connection method: Push-in spring connection, color: green, contact surface: Tin