

Printed-circuit board connector - IFMC 1,5/ 6-ST-3,5 - 1844028

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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: 6, 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

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
- ✓ Operation and conductor connection from one direction enable integration into front of device
- ✓ Inverted connector with pin contacts for touch-proof device outputs or free-hanging cable/cable connections



Key Commercial Data

Packing unit	1 pc
Minimum order quantity	50 pc
GTIN	 4 046356 947275
GTIN	4046356947275
Weight per Piece (excluding packing)	4.000 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

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Technical data

Item properties

Range of articles	IFMC 1,5/...-ST
Pitch	3.5 mm
Number of positions	6
Connection method	Push-in spring connection
Locking	without
Number of levels	1
Number of connections	6
Number of potentials	6

Electrical parameters

Nom. voltage	160 V
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Connection capacity

Connection method	Push-in spring connection
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
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 mm ² ; Length: 5 mm ... 7 mm	
	Cross section: 0.34 mm ² ; Length: 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	
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: 8 mm ... 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

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Material data - contact

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

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]	21.7 mm
Height [h]	7.8 mm
Pitch	3.5 mm
Dimension a	17.5 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

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Termination and connection method

	Test passed
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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 / > 10 N
	0.2 mm ² / flexible / > 10 N
	1.5 mm ² / solid / > 40 N
	1.5 mm ² / 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.	3 N
Withdraw strength per pos. approx.	3 N
Polarization and coding	Test passed IEC 60512-13-5:2006-02
Result	Test passed
Specification	IEC 60512-15-1:2008-05
Test force per pos.	20 N

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

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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

Mechanical tests (A)

Insertion strength per pos. approx.	3 N
Withdraw strength per pos. approx.	3 N
Polarization when inserted requirement >20 N	Test passed
Contact holder in insert requirements >20 N	Test passed

Durability tests (B)

Specification	IEC 60512-9-1:2010-03
Contact resistance R ₁	2.1 mΩ
Insertion/withdrawal cycles	25
Contact resistance R ₂	2.3 mΩ
Impulse withstand voltage at sea level	2.95 kV
Power-frequency withstand voltage	1.39 kV
Insulation resistance, neighboring positions	> 5 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

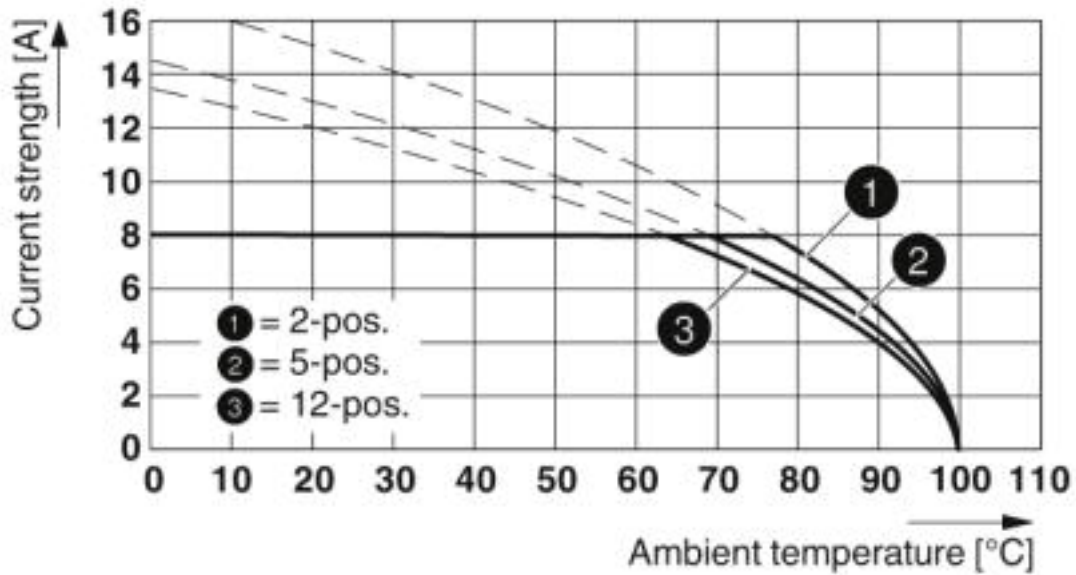
Environmental Product Compliance

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

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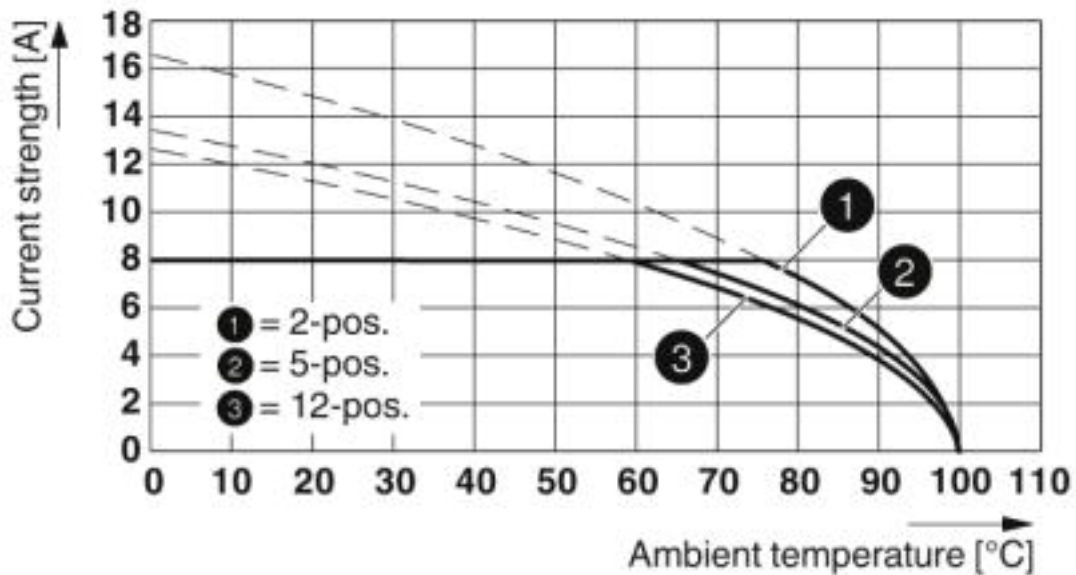
Drawings

Diagram



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

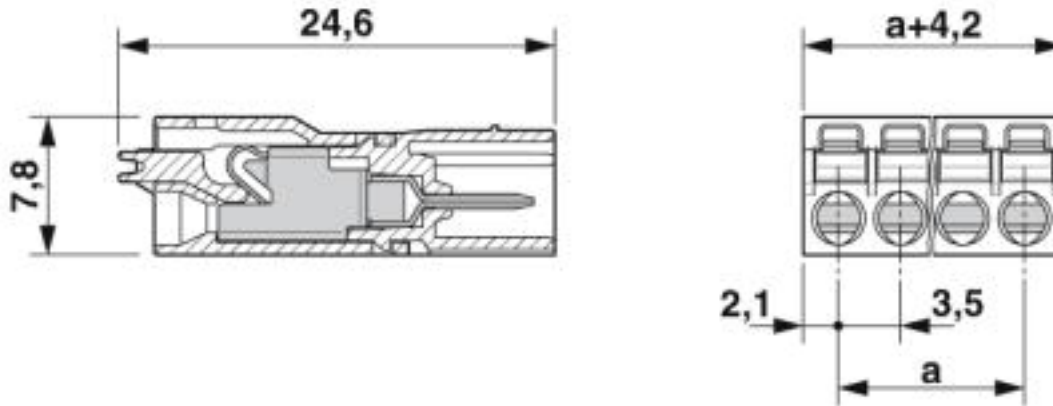
Diagram



Type: IFMC 1,5/...-ST-3,5 with IMC 1,5/...-G-3,5 P20 THR

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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
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

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Approvals


Approvals

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


Ex Approvals

Approval details

IECEE CB Scheme		http://www.iecee.org/	DE1-60987-B1B2
Nominal voltage UN	160 V		
Nominal current IN	8 A		
mm ² /AWG/kcmil	0.2-1.5		

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		

EAC			B.01742
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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	

Accessories

Accessories

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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

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

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Accessories

Ferrule - A 0,75- 8 - 3202504



Ferrule, length: 8 mm, color: silver

Ferrule - A 0,75-10 - 3200234



Ferrule, length: 10 mm, color: silver

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

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Accessories

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

Ferrule - AI 0,34-10 TQ - 3241129



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

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

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Accessories

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

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

Labeled terminal marker

Marker card - SK 3,5/2,8:FORTL.ZAHLEN - 0804073



Marker card, Card, white, labeled, Horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 99, mounting type: adhesive, for terminal block width: 3.5 mm, lettering field size: 3.5 x 2.8 mm

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Accessories

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

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/ 6-ST-3,5 - 1952306



PCB connector, nominal current: 8 A, rated voltage (III/2): 160 V, nominal cross section: 1.5 mm², number of positions: 6, pitch: 3.5 mm, connection method: Push-in spring connection, color: green, contact surface: Tin

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Accessories

Feed-through header - IMC 1,5/ 6-G-3,5 P20 THR - 1830456

PCB headers, nominal current: 8 A, rated voltage (III/2): 160 V, nominal cross section: 1.5 mm², number of positions: 6, pitch: 3.5 mm, color: black, contact surface: Tin, mounting: THR soldering, pin layout: Linear double pinning, solder pin [P]: 2 mm



Feed-through header - IMCV 1,5/ 6-G-3,5 P20 THR - 1830757

PCB headers, nominal current: 8 A, rated voltage (III/2): 160 V, nominal cross section: 1.5 mm², number of positions: 6, pitch: 3.5 mm, color: black, contact surface: Tin, mounting: THR soldering, solder pin [P]: 1.9 mm

