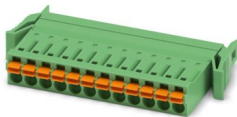


IFMC 1,5/12-ST-3,5-RF - PCB connectors



1844316
<https://www.phoenixcontact.com/us/products/1844316>

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PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Pin, number of potentials: 12, number of rows: 1, number of positions: 12, number of connections: 12, product range: IFMC 1,5/...-ST-RF, pitch: 3.5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, plug-in system: COMBICON MC 1,5, locking: Snap-in locking, mounting: Self-locking flange, type of packaging: packed in cardboard

Your advantages

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

Commercial data

Item number	1844316
Packing unit	50 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Sales key	AA02
Product key	AABFIB
GTIN	4046356947442
Weight per piece (including packing)	7.766 g
Weight per piece (excluding packing)	7.766 g
Customs tariff number	85366990
Country of origin	SK

IFMC 1,5/12-ST-3,5-RF - PCB connectors



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Technical data

Product properties

Product type	PCB connector
Product family	IFMC 1,5/...-ST-RF
Product line	COMBICON Connectors S
Type	Inverted
Number of positions	12
Pitch	3.5 mm
Number of connections	12
Number of rows	1
Number of potentials	12
Mounting flange	Self-locking flange

Electrical properties

Nominal current I_N	8 A
Nominal voltage U_N	160 V
Contact resistance	2.1 mΩ
Rated voltage (III/3)	160 V
Rated surge voltage (III/3)	2.5 kV
Rated voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV
Rated voltage (II/2)	320 V
Rated surge voltage (II/2)	2.5 kV

Connection data

Connection technology

Type	Inverted
Connector system	COMBICON MC 1,5
Nominal cross section	1.5 mm ²
Contact connection type	Pin

Interlock

Locking type	Snap-in locking
Mounting flange	Self-locking flange

Conductor connection

Connection method	Push-in spring connection
Conductor/PCB connection direction	0 °
Conductor cross section rigid	0.14 mm ² ... 1.5 mm ²
Conductor cross section flexible	0.14 mm ² ... 1.5 mm ²
Conductor cross section AWG	24 ... 16
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 1.5 mm ²

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Conductor cross section, flexible, with ferrule, with plastic sleeve	0.14 mm ² ... 0.75 mm ²
Cylindrical gauge a x b / diameter	2.4 mm x 1.5 mm / -
Stripping length	10 mm

Specifications for ferrules without insulating collar

recommended crimping tool	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
	Cross section: 1.5 mm ² ; Length: 10 mm

Specifications for ferrules with insulating collar

recommended crimping tool	1212034 CRIMPFOX 6
ferrules with insulating collar, according to DIN 46228-4	Cross section: 0.14 mm ² ; Length: 8 mm
	Cross section: 0.25 mm ² ; Length: 8 mm ... 10 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 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	hot-dip tin-plated
Metal surface terminal point (top layer)	Tin (2 - 4 µm Sn)
Metal surface contact area (top layer)	Tin (2 - 4 µm Sn)

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

Material data – actuating element

Color (Actuating element)	orange (2003)
Insulating material	PBT
Insulating material group	I

IFMC 1,5/12-ST-3,5-RF - PCB connectors

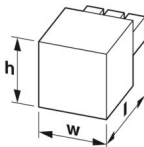


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CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

Dimensions

Dimensional drawing	
Pitch	3.5 mm
Width [w]	52.1 mm
Height [h]	7.8 mm
Length [l]	24.6 mm

Mechanical tests

Conductor connection

Specification	IEC 60999-1:1999-11
Result	Test passed

Test for conductor damage and slackening

Specification	IEC 60999-1:1999-11
Result	Test passed

Repeated connection and disconnection

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 setpoint/actual value	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

Insertion and withdrawal forces

Result	Test passed
No. of cycles	25
Insertion strength per pos. approx.	3 N
Withdraw strength per pos. approx.	3 N

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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IFMC 1,5/12-ST-3,5-RF - PCB connectors



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Result	Test passed
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Visual inspection

Specification	IEC 60512-1-1:2002-02
Result	Test passed

Dimension check

Specification	IEC 60512-1-2:2002-02
Result	Test passed

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

Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	2.95 kV
Contact resistance R_1	2.1 mΩ
Contact resistance R_2	2.3 mΩ
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 5 MΩ

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	1.39 kV

Ambient conditions

Ambient temperature (operation)	-40 °C ... 100 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

Electrical tests

Thermal test | Test group C

Specification	IEC 60512-5-1:2002-02
Tested number of positions	12

Insulation resistance

Specification	IEC 60512-3-1:2002-02
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IFMC 1,5/12-ST-3,5-RF - PCB connectors



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Insulation resistance, neighboring positions	> 5 MΩ
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Temperature cycles

Specification	IEC 60999-1:1999-11
Result	Test passed

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)	160 V
Rated surge voltage (III/3)	2.5 kV
minimum clearance value - non-homogenous field (III/3)	1.5 mm
minimum creepage distance (III/3)	2 mm
Rated insulation voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV
minimum clearance value - non-homogenous field (III/2)	1.5 mm
minimum creepage distance (III/2)	1.5 mm
Rated insulation voltage (II/2)	320 V
Rated surge voltage (II/2)	2.5 kV
minimum clearance value - non-homogenous field (II/2)	1.5 mm
minimum creepage distance (II/2)	1.6 mm

Packaging specifications

Type of packaging	packed in cardboard
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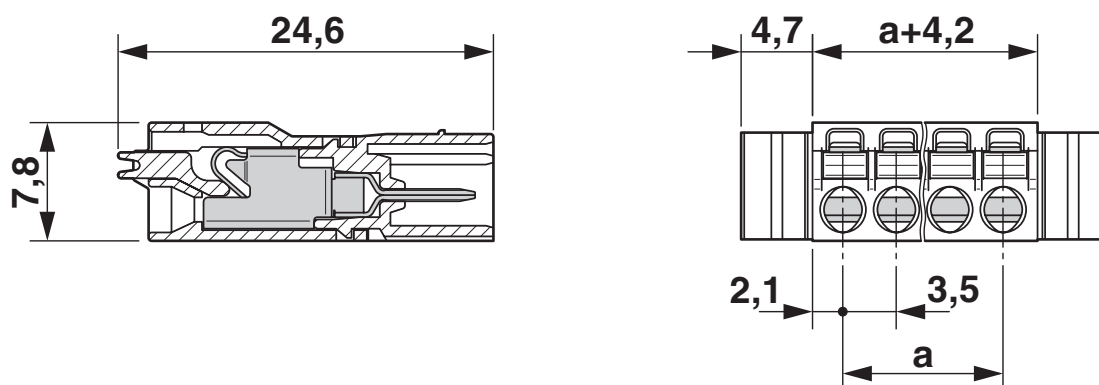
IFMC 1,5/12-ST-3,5-RF - PCB connectors

1844316

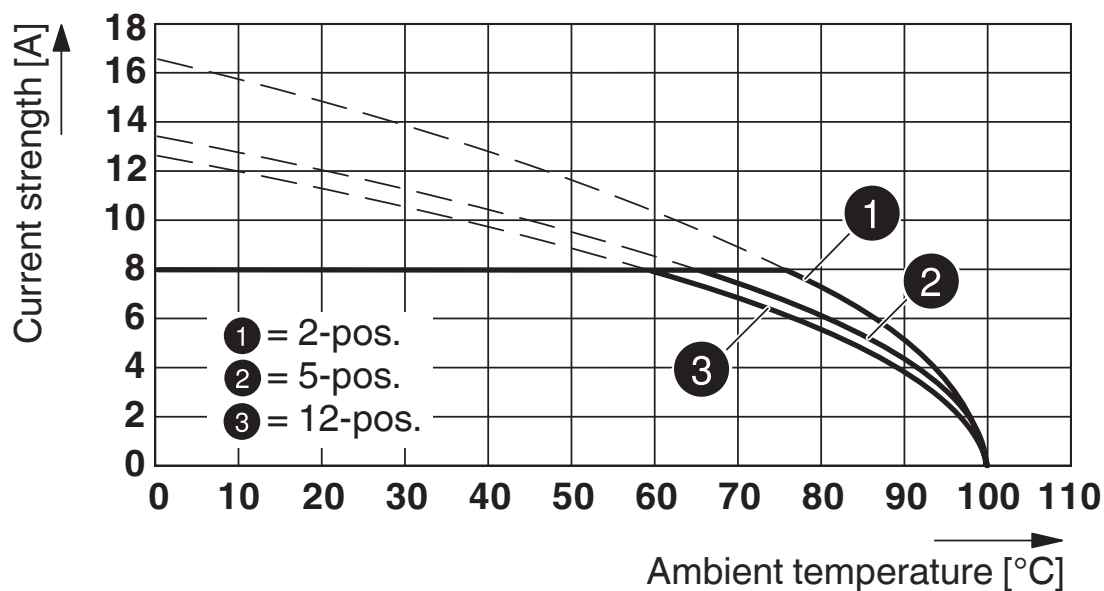
<https://www.phoenixcontact.com/us/products/1844316>

Drawings

Dimensional drawing



Diagram



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

IFMC 1,5/12-ST-3,5-RF - PCB connectors





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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1844316>

 cULus Recognized Approval ID: E60425-19920306				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B	150 V	8 A	24 - 16	-
Use group C	50 V	8 A	24 - 16	-

 VDE Zeichengenehmigung Approval ID: 40011723				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	160 V	8 A	-	0.2 - 1.5

IFMC 1,5/12-ST-3,5-RF - PCB connectors



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Classifications

ECLASS

ECLASS-11.0	27460202
ECLASS-12.0	27460202
ECLASS-13.0	27460202

ETIM

ETIM 9.0	EC002638
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UNSPSC

UNSPSC 21.0	39121400
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IFMC 1,5/12-ST-3,5-RF - PCB connectors



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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%

IFMC 1,5/12-ST-3,5-RF - PCB connectors



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Accessories

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

0803883

<https://www.phoenixcontact.com/us/products/0803883>



Marker card, Din A4, 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

B-STIFT - Marker pen

1051993

<https://www.phoenixcontact.com/us/products/1051993>



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

IFMC 1,5/12-ST-3,5-RF - PCB connectors



1844316

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CRIMPFOX 6 - Crimping pliers

1212034

<https://www.phoenixcontact.com/us/products/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

SZS 0,4X2,5 VDE - Screwdriver

1205037

<https://www.phoenixcontact.com/us/products/1205037>



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

IFMC 1,5/12-ST-3,5-RF - PCB connectors



1844316

<https://www.phoenixcontact.com/us/products/1844316>

A 0,25- 5 - Ferrule

3202465

<https://www.phoenixcontact.com/us/products/3202465>



Ferrule, color: silver

A 0,25- 7 - Ferrule

3202478

<https://www.phoenixcontact.com/us/products/3202478>



Ferrule, color: silver

IFMC 1,5/12-ST-3,5-RF - PCB connectors



1844316

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A 0,34- 7 - Ferrule

3009202

<https://www.phoenixcontact.com/us/products/3009202>



Ferrule, color: silver

A 0,5 - 8 - Ferrule

3202481

<https://www.phoenixcontact.com/us/products/3202481>



Ferrule, color: silver

IFMC 1,5/12-ST-3,5-RF - PCB connectors



1844316

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A 0,5 -10 - Ferrule

3202494

<https://www.phoenixcontact.com/us/products/3202494>



Ferrule, color: silver

A 0,75- 8 - Ferrule

3202504

<https://www.phoenixcontact.com/us/products/3202504>



Ferrule, color: silver

IFMC 1,5/12-ST-3,5-RF - PCB connectors



1844316

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A 0,75-10 - Ferrule

3200234

<https://www.phoenixcontact.com/us/products/3200234>



Ferrule, color: silver

A 1 - 8 - Ferrule

3202517

<https://www.phoenixcontact.com/us/products/3202517>



Ferrule, sleeve length: 8 mm, color: silver

IFMC 1,5/12-ST-3,5-RF - PCB connectors



1844316

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A 1 -10 - Ferrule

3200250

<https://www.phoenixcontact.com/us/products/3200250>



Ferrule, color: silver

A 1,5 -10 - Ferrule

3200276

<https://www.phoenixcontact.com/us/products/3200276>



Ferrule, sleeve length: 10 mm, color: silver

IFMC 1,5/12-ST-3,5-RF - PCB connectors



1844316

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AI 0,14- 8 GY -1000 - Ferrule

3203011

<https://www.phoenixcontact.com/us/products/3203011>



Ferrule, sleeve length: 8 mm, color: gray

AI 0,34- 8 TQ - Ferrule

3203066

<https://www.phoenixcontact.com/us/products/3203066>



Ferrule, sleeve length: 8 mm, color: turquoise

IFMC 1,5/12-ST-3,5-RF - PCB connectors



1844316

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AI 0,34-10 TQ - Ferrule

3241129

<https://www.phoenixcontact.com/us/products/3241129>



Ferrule, sleeve length: 10 mm, color: turquoise

AI 0,5 - 8 WH - Ferrule

3200014

<https://www.phoenixcontact.com/us/products/3200014>



Ferrule, sleeve length: 8 mm, color: white

IFMC 1,5/12-ST-3,5-RF - PCB connectors



1844316

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AI 0,5 -10 WH - Ferrule

3201275

<https://www.phoenixcontact.com/us/products/3201275>

Ferrule, sleeve length: 10 mm, color: white



AI 0,75- 8 GY - Ferrule

3200519

<https://www.phoenixcontact.com/us/products/3200519>

Ferrule, sleeve length: 8 mm, color: gray



IFMC 1,5/12-ST-3,5-RF - PCB connectors



1844316

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AI 0,75-10 GY - Ferrule

3201288

<https://www.phoenixcontact.com/us/products/3201288>



Ferrule, sleeve length: 10 mm, color: gray

AI 0,25- 8 YE - Ferrule

3203037

<https://www.phoenixcontact.com/us/products/3203037>



Ferrule, sleeve length: 8 mm, color: yellow

IFMC 1,5/12-ST-3,5-RF - PCB connectors



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IMC 1,5/12-G-3,5 RN P20 THR - PCB header

1830663

<https://www.phoenixcontact.com/us/products/1830663>



PCB headers, nominal cross section: 1.5 mm², color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Socket, number of potentials: 12, number of rows: 1, number of positions: 12, number of connections: 12, product range: IMC 1,5/...-G-RN-THR, pitch: 3.5 mm, mounting: THR soldering / wave soldering, pin layout: Linear pinning, solder pin [P]: 2 mm, number of solder pins per potential: 2, plug-in system: COMBICON MC 1,5, Pin connector pattern alignment: Standard, locking: Snap-in locking, mounting: Engagement nose, type of packaging: packed in cardboard

IMCV 1,5/12-G-3,5 RN P20 THR - PCB header

1830964

<https://www.phoenixcontact.com/us/products/1830964>



PCB headers, nominal cross section: 1.5 mm², color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Socket, number of potentials: 12, number of rows: 1, number of positions: 12, number of connections: 12, product range: IMCV 1,5/...-G-RN-THR, pitch: 3.5 mm, mounting: THR soldering / wave soldering, pin layout: Linear pinning, solder pin [P]: 1.9 mm, number of solder pins per potential: 2, plug-in system: COMBICON MC 1,5, Pin connector pattern alignment: Standard, locking: Snap-in locking, mounting: Engagement nose, type of packaging: packed in cardboard

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