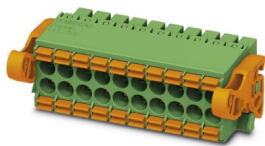


PCB plug - DFMC 1,5/13-ST-3,5-LR AU - 1021244

<https://www.phoenixcontact.com/in/products/1021244>

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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: Gold, type of contact: Female connector, Number of potentials: 26, Number of rows: 2, Number of positions per row: 13, number of connections: 26, product range: DFMC 1,5/...-ST-LR, pitch: 3.5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, Stecksystem: MINI COMBICON - DFMC 1,5, Locking: Snap-in locking, type of packaging: packed in cardboard

Your advantages

- Gold-plated contacts ensure transfer quality remains stable over the long term
- Time saving push-in connection, tools not required
- Intuitive use through colour coded actuation lever
- Optimized for tight installation situations: operation and conductor connection from one direction
- Automatic locking and intuitive release through Lock and Release operating lever in contrasting color
- Defined contact force ensures that contact remains stable over the long term

PCB plug - DFMC 1,5/13-ST-3,5-LR AU - 1021244



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Commercial Data

Order Key	1021244
Packing unit	50 pc
Minimum order quantity	500 pc
Note	Made to Order (non-returnable)
GTIN	4055626513621
Weight per Piece (including packing)	14.5 GRM
Weight per Piece (excluding packing)	14.5 GRM
Customs tariff number	85366990

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Technical Data

Electrical tests

Thermal test | Test group C

Specification	IEC 60512-5-1:2002-02
Tested number of positions	15

Electrical properties

Rated voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV
Contact resistance	1.9 mΩ
Pollution degree	2

Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	I
Comparative tracking index (IEC 60112:2003-01)	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

Temperature cycles

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

Electrical properties

Contact resistance	2.1 mΩ
Insulation resistance	> 2 TΩ, (IEC 60512-3-1:2002-02)
Insulation resistance	> 2 TΩ, (IEC 60512-3-1:2002-02)
Nominal current I _N	8 A

Packaging specifications

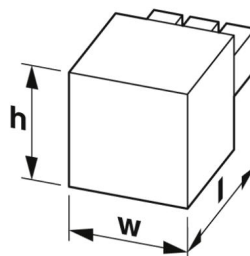
Type of packaging	packed in cardboard
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Dimensions

PCB plug - DFMC 1,5/13-ST-3,5-LR AU - 1021244

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Dimensional drawing



Width	52.4 mm
Height	13.25 mm
Length	27.79 mm
Pitch	3.5 mm

Environmental and durability tests

Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	2.95 kV
Contact resistance R_1	1.9 mΩ
Contact resistance R_2	2.1 mΩ
Insertion/withdrawal cycles	100
Insulation resistance, neighboring positions	> 8 TΩ

Climatic test

Specification	ISO 6988:1985-02
Corrosive stress	1.0 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

Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 500 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 - 60.1 Hz)
Sweep speed	5g (60.1 - 500 Hz)
Test duration per axis	2 h

Ambient conditions

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

Mechanical tests

Contact holder in insert

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Specification	IEC 60512-15-1:2008-05
Result	Test passed
Test force per pos.	20 N

Repeated connection and disconnection

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

Polarization and coding

Specification	IEC 60512-13-5:2006-02
Result	Test passed

Insertion and withdrawal forces

Result	Test passed
No. of cycles	100
Insertion strength per pos. approx.	2 N
Withdraw strength per pos. approx.	1 N

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 setpoint/actual value	0.14 mm ² / solid / > 10 N
Conductor cross section/conductor type/tractive force setpoint/actual value	0.14 mm ² / flexible / > 10 N
Conductor cross section/conductor type/tractive force setpoint/actual value	1.5 mm ² / solid / > 40 N
Conductor cross section/conductor type/tractive force setpoint/actual value	1.5 mm ² / flexible / > 40 N

Visual inspection

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

Resistance of inscriptions

Specification	IEC 60068-2-70:1995-12
Result	Test passed

Dimension check

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

Notes

Environmental Product Compliance

PCB plug - DFMC 1,5/13-ST-3,5-LR AU - 1021244



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

Connection data

Connection technology

Type	Plug component
Plug-in system	MINI COMBICON - DFMC 1,5
Nominal cross section	1.5 mm ²
Type of contact	Female connector

Conductor connection

Connection method	Push-in spring connection
Conductor cross section solid	0.2 mm ² ... 1.5 mm ²
Conductor cross section flexible	0.2 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
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 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

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: 7 mm

Interlock

Locking type	Snap-in locking
Mounting flange	Lock & Release ejector lever

Material specifications

Material data – actuating element

Insulating material	PBT
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

Material data - housing

Housing color	green (6021)
Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600

PCB plug - DFMC 1,5/13-ST-3,5-LR AU - 1021244



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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 - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Surface characteristics	partially gold-plated
Metal surface terminal point (top layer)	Tin (4 - 8 µm Sn)
Metal surface terminal point (middle layer)	Nickel (2 - 3 µm Ni)
Metal surface contact area (top layer)	Gold (0.8 Au)
Metal surface contact area (middle layer)	Nickel (2 - 3 µm Ni),

Product properties

Number of positions	13
Number of connections	26
Number of levels	2
Plug-in system	MINI COMBICON - DFMC 1,5
Number of potentials	26

PCB plug - DFMC 1,5/13-ST-3,5-LR AU - 1021244



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Approvals

IECEE CB Scheme 

Nominal voltage U_N	160 V
Nominal current I_N	8 A

VDE Gutachten mit Fertigungsüberwachung 

Nominal voltage U_N	160 V
Nominal current I_N	8 A
AWG/kcmil	
Min. cross section	0.2 mm ²
Max. cross section	1.5 mm ²

EAC 

cULus Recognized 

Usegroup	B	C	D
Nominal voltage U_N	300 V	50 V	300 V
Nominal current I_N	8 A	8 A	8 A
AWG/kcmil	24 mm ²	24 mm ²	24 mm ²
Min. cross section	16 mm ²	16 mm ²	16 mm ²
Max. cross section			

PCB plug - DFMC 1,5/13-ST-3,5-LR AU - 1021244

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Accessories

Screwdriver tools

Screwdriver tools - 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

Coding element

Coding element - CP-DMC 1,5 NAT - 1790647



Coding profile, for insertion between the coding ribs of the connector and the header following the reflow soldering process, insulating material, color: natural

Crimping tool

Crimping tool - CRIMPFOX 6 - 1212034

PCB plug - DFMC 1,5/13-ST-3,5-LR AU - 1021244

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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

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PHOENIX CONTACT (I) Pvt. Ltd.
A-58/2, Okhla Industrial Area, Phase - II, New Delhi-110 020

+91.11.30262800
info@phoenixcontact.co.in