

# Printed-circuit board connector - DMC 1,5/ 6-G1-3,5 P35 - 1053812

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




The figure shows a 10-pos. version with 20 contacts

## Your advantages

- Conductor connection on several levels enables higher contact density
- Small component size for applications where space is at a premium
- Well-known mounting principle allows worldwide use



## Key Commercial Data

Packing unit	50 pc
GTIN	 4 055626 687421
GTIN	4055626687421

## Technical data

### Item properties

Brief article description	Feed-through header
Plug-in system	MINI COMBICON - DFMC 1,5
Type of contact	Male connector
Range of articles	DMC 1,5/...G1
Pitch	3.5 mm
Number of positions	6
Mounting type	Wave soldering
Pin layout	Linear pinning
Number of levels	2
Number of connections	12
Number of potentials	12

### Electrical parameters

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## Technical data

### Electrical parameters

Nominal current	8 A
Nom. voltage	160 V
Rated voltage	160 V
Rated voltage (III/2)	160 V
Rated voltage (II/2)	250 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

### 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	Tin-plated
Metal surface contact area (top layer)	Tin (4 - 8 µm Sn)
Metal surface contact area (middle layer)	Nickel (1.5 - 4 µm Ni),
Metal surface soldering area (top layer)	Tin (4 - 8 µm Sn)
Metal surface soldering area (middle layer)	Nickel (1.5 - 4 µm Ni)

### Material data - housing

Housing color	green (6021)
Insulating material	PBT
Insulating material group	IIIa
CTI according to IEC 60112	225
Flammability rating according to UL 94	V0

### Dimensions for the product

Length [ l ]	11.6 mm
Width [ w ]	21.8 mm
Height [ h ]	14.3 mm
Pitch	3.5 mm
Height (without solder pin)	10.8 mm
Solder pin [P]	3.5 mm
Pin spacing	2.50 mm
Pin dimensions	0.8 x 0.8 mm

### Dimensions for PCB design

Hole diameter	1.2 mm
Pin spacing	2.50 mm

### Packaging information

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

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### 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)

### Air clearances and creepage distances

Clearances and creepage distances	IEC 60664-1:2007-04
Specification	IEC 60664-1:2007-04
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)	2.5 mm
Minimum creepage distance value (III/2)	1.6 mm
Minimum creepage distance value (II/2)	2.5 mm

### Mechanical tests (A)

Test specification	IEC 61984
Insertion strength per pos. approx.	3 N
Withdraw strength per pos. approx.	2 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 <sub>1</sub>	3 mΩ
Insertion/withdrawal cycles	25
Contact resistance R <sub>2</sub>	3.5 mΩ
Impulse withstand voltage at sea level	2.95 kV
Power-frequency withstand voltage	1.39 kV

### Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	20
Conductor cross section	1.5 mm <sup>2</sup>
Test current	8 A
Upper limiting temperature requirements <100 °C	Test passed

### Climatic tests (D)

Specification	ISO 6988:1985-02
Cold stress	-40 °C/2 h
Thermal stress	105 °C/168 h
Corrosive stress	0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/1 cycle
Impulse withstand voltage at sea level	2.95 kV
Power-frequency withstand voltage	1.39 kV

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## Technical data

### Environmental and durability tests (E)

Specification	IEC 61984:2008-10
Result, degree of protection, IP code	Back of hand safety with IP10 access probe

### Vibration test

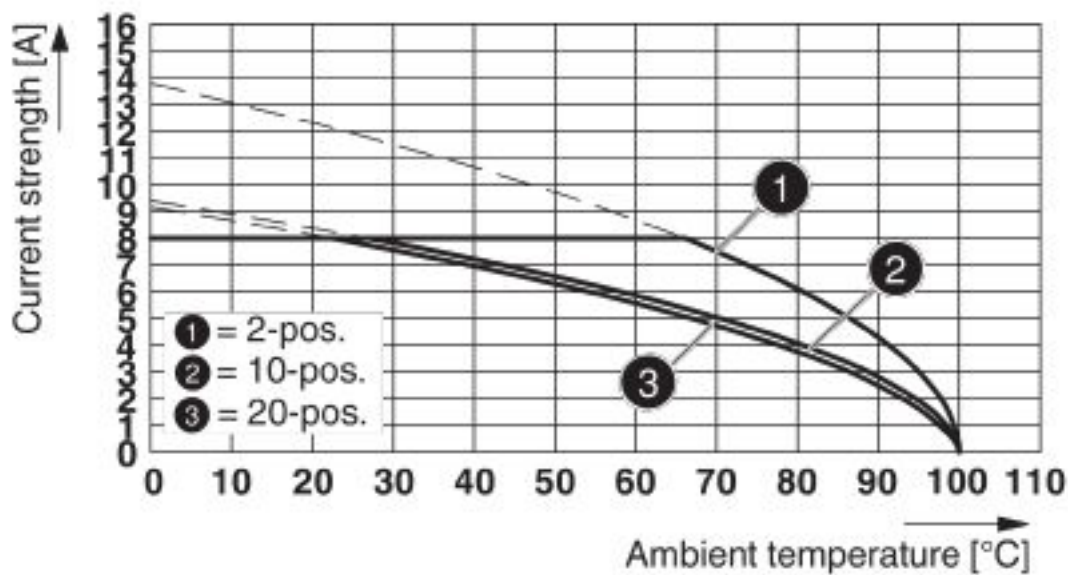
Specification	IEC 60068-2-6:2007-12
Result	Test passed
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 - 60.1 Hz)
Acceleration	5 g (60.1 - 150 Hz)
Test duration per axis	2.5 h

### Standards and Regulations

Connection in acc. with standard	EN-VDE
Flammability rating according to UL 94	V0

## Drawings

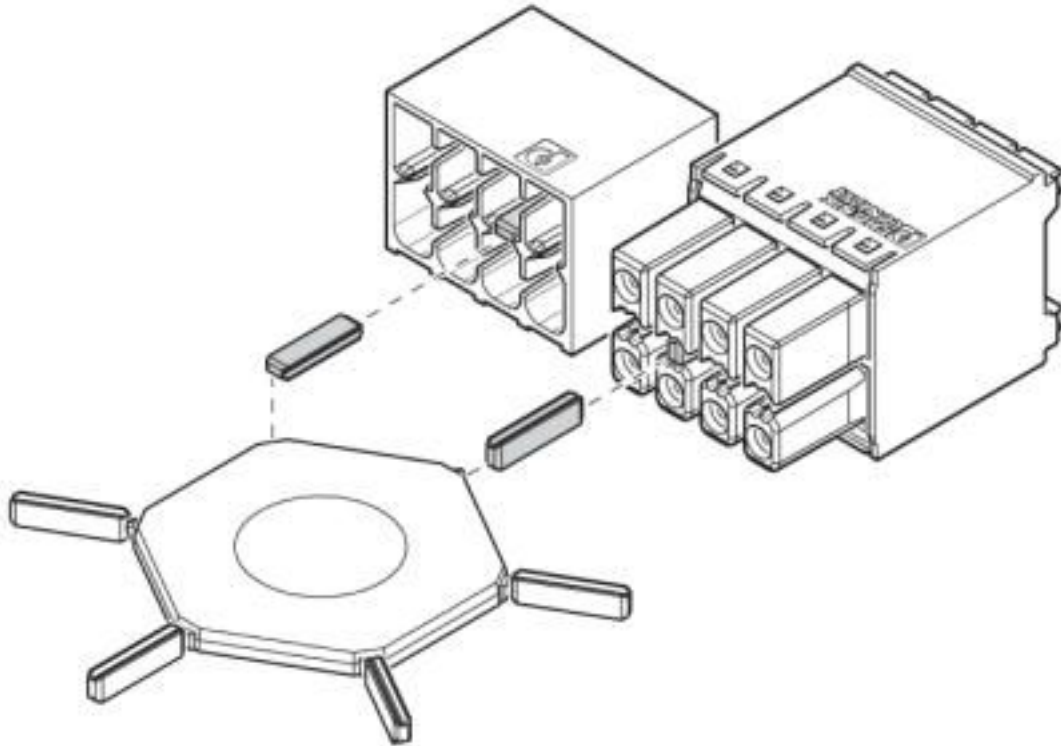
Diagram



Type: DFMC 1.5/...-ST-3.5 with DMC 1.5/...-G1-3.5 P35

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Schematic diagram



Use of the CP-DMC... coding profile

## Classifications

eCl@ss

eCl@ss 10.0.1	27440402
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	27440402
eCl@ss 8.0	27440402
eCl@ss 9.0	27440402

ETIM

ETIM 5.0	EC002637
ETIM 6.0	EC002637
ETIM 7.0	EC002637

## Approvals

Approvals

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## Approvals

Approvals

EAC / cULus Recognized

Ex Approvals

## Approval details

EAC		B.01687
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cULus Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	E60425-20110128
	B	D	
Nominal voltage UN	150 V	300 V	
Nominal current IN	8 A	8 A	

## Accessories

Accessories

Coding element

Coding profile - 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



## Additional products

Printed-circuit board connector - DFMC 1,5/ 6-ST-3,5 - 1790140

Plug, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 6 with 12 contacts, pitch: 3.5 mm, connection method: spring-cage connection, color: green, contact surface: tin



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