

# DMCV 1,5/10-G1F-3,5-LR P26THR - PCB header



1874218

<https://www.phoenixcontact.com/pc/products/1874218>

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PCB headers, nominal cross section: 1.5 mm<sup>2</sup>, color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Pin, number of potentials: 20, number of rows: 2, number of positions: 10, number of connections: 20, product range: DMCV 1,5/...-G1F-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, number of solder pins per potential: 1, plug-in system: COMBICON DFMC 1,5, Pin connector pattern alignment: Standard, locking: Snap-in locking, mounting: Lock & release threaded flange, type of packaging: packed in cardboard

## Your advantages

- Designed for integration into the SMT soldering process
- Vertical connection enables multi-row arrangement on the PCB
- Automatic locking and intuitive release through Lock and Release operating lever in contrasting color
- Screwable flange for superior mechanical stability
- Small component size for applications where space is at a premium

## Commercial data

Item number	1874218
Packing unit	50 pc
Minimum order quantity	50 pc
Product key	AABTJC
GTIN	4055626259499
Weight per piece (including packing)	4.565 g
Weight per piece (excluding packing)	3.98 g
Customs tariff number	85366930
Country of origin	DE

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## Technical data

### Product properties

Product line	COMBICON Connectors S
Product type	PCB headers
Product family	DMCV 1,5/..-G1F-THR
Number of positions	10
Pitch	3.5 mm
Number of connections	20
Number of rows	2
Mounting flange	Lock & release threaded flange
Number of potentials	20
Pin layout	Linear pinning
Solder pins per potential	1

### Electrical properties

Nominal current $I_N$	8 A
Nominal voltage $U_N$	160 V
Degree of pollution	3
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)	250 V
Rated surge voltage (II/2)	2.5 kV

### Mounting

Mounting type	THR soldering
Pin layout	Linear pinning

### Flange

Tightening torque	0.2 Nm
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### 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	Tin-plated
Metal surface contact area (top layer)	Tin (3 - 5 μm Sn)
Metal surface contact area (middle layer)	Nickel (1.3 - 3 μm Ni)
Metal surface soldering area (top layer)	Tin (3 - 5 μm Sn)
Metal surface soldering area (middle layer)	Nickel (1.3 - 3 μm Ni)

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## Material data - housing

Color (Housing)	black (9005)
Insulating material	LCP
Insulating material group	IIIa
CTI according to IEC 60112	175
Flammability rating according to UL 94	V0

## Dimensions

Dimensional drawing	
Pitch	3.5 mm
Width [w]	42 mm
Height [h]	12.6 mm
Length [l]	10.6 mm
Installed height	10 mm
Solder pin length [P]	2.6 mm
Pin dimensions	0.8 x 0.8 mm

## PCB design

Pin spacing	5.50 mm
Hole diameter	1.4 mm

## Mechanical tests

### Visual inspection

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

### Dimension check

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

### Resistance of inscriptions

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

### Polarization and coding

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

### Contact holder in insert

Specification	IEC 60512-15-1:2008-05
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Contact holder in insert Requirements >20 N	Test passed
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#### Insertion and withdrawal forces

Result	Test passed
No. of cycles	25
Insertion strength per pos. approx.	3 N
Withdraw strength per pos. approx.	2 N

### Electrical tests

#### Thermal test | Test group C

Specification	IEC 60512-5-1:2002-02
Tested number of positions	20

#### Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 5 MΩ

#### Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	IIIa
Comparative tracking index (IEC 60112)	CTI 175
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)	2.5 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)	1.6 mm
Rated insulation voltage (II/2)	250 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)	2.5 mm

### 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)
Sweep speed	5g (60.1 Hz ... 150 Hz)
Test duration per axis	2.5 h

#### Durability test

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Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	2.95 kV
Contact resistance R <sub>1</sub>	2.1 mΩ
Contact resistance R <sub>2</sub>	2.4 mΩ
Insertion/withdrawal cycles	25

## Climatic test

Specification	ISO 6988:1985-02
Corrosive stress	0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /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

## Packaging specifications

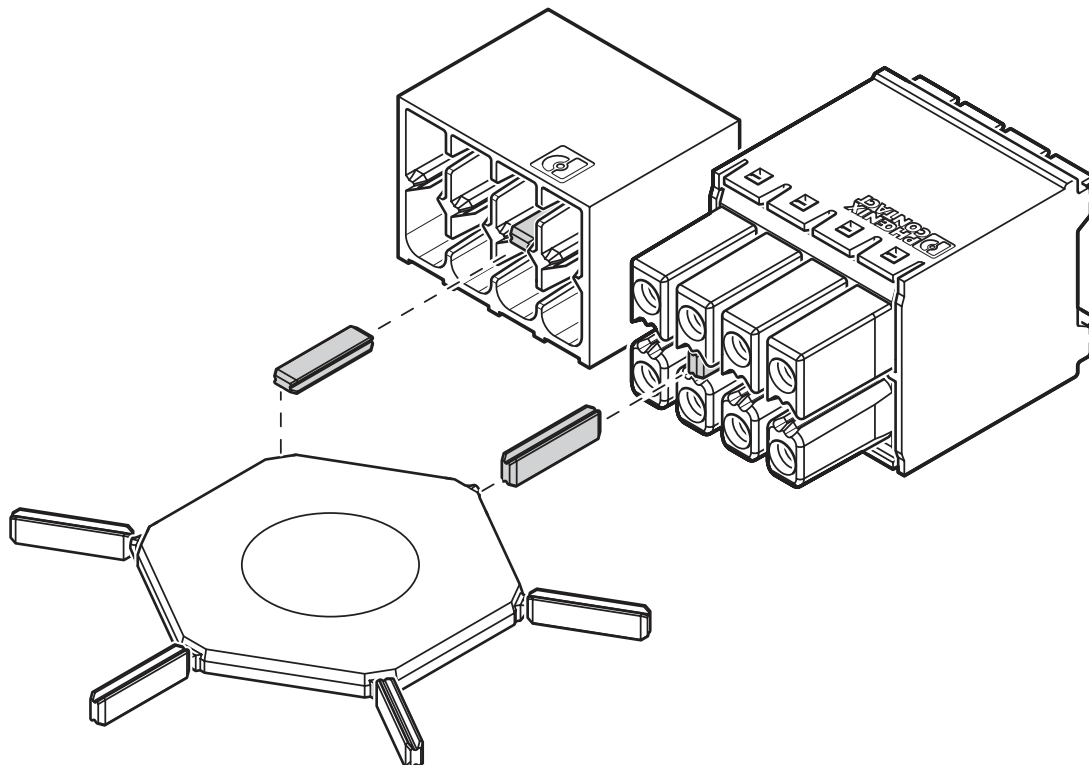
Type of packaging	packed in cardboard
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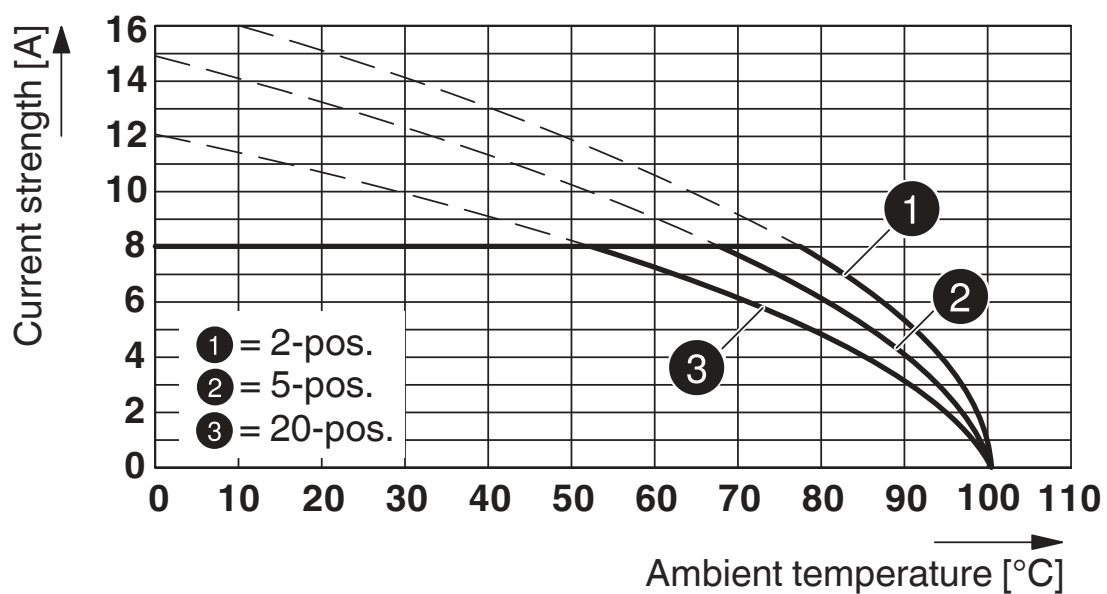
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## Drawings

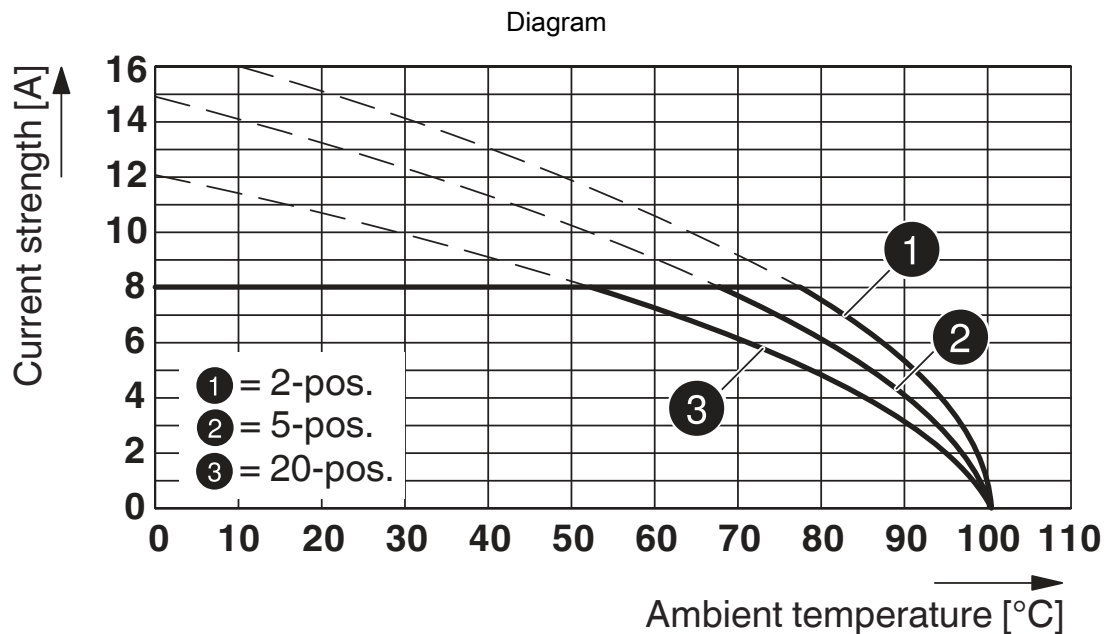
Schematic diagram



Diagram

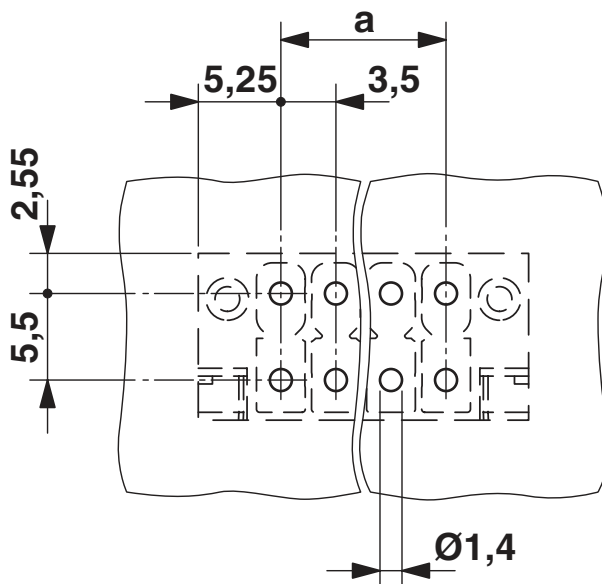


Type: DFMC 1,5/...-STF-3,5 with DMCV 1,5/...-G1F-3,5-LR P...THR



Type: DFMC 1,5/...-ST-3,5-LR with DMCV 1,5/...-G1F-3,5-LR P20THR

Drilling plan/solder pad geometry





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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/1874218>

 **EAC**  
Approval ID: B.01687

 **cULus Recognized**  
Approval ID: E60425-20110128

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Use group B	300 V	8 A	-	-
Use group C	50 V	8 A	-	-
Use group D	300 V	8 A	-	-

 **VDE Gutachten mit Fertigungsüberwachung**  
Approval ID: 40038423

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	160 V	8 A	-	-



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## Classifications

### ECLASS

ECLASS-11.0	27460201
ECLASS-12.0	27460201
ECLASS-13.0	27460201

### ETIM

ETIM 8.0	EC002637
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

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

### CP-DMC 1,5 NAT - Coding profile

1790647

<https://www.phoenixcontact.com/pc/products/1790647>

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



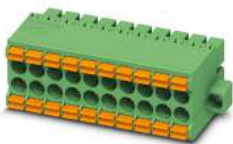
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### DFMC 1,5/10-STF-3,5 - PCB connector

1790373

<https://www.phoenixcontact.com/pc/products/1790373>

Plug, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 10 with 20 contacts, pitch: 3.5 mm, connection method: spring-cage connection, color: green, contact surface: tin



# DMCV 1,5/10-G1F-3,5-LR P26THR - PCB header

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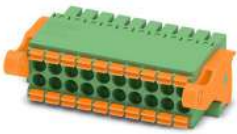


## DFMC 1,5/10-ST-3,5-LR - PCB connector

1790564

<https://www.phoenixcontact.com/pc/products/1790564>

Plug, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 10 with 20 contacts, pitch: 3.5 mm, connection method: spring-cage connection, color: green, contact surface: tin



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