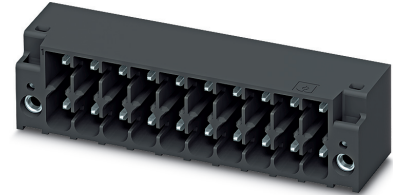


# Data sheet

Order No.: 1874014

Type: DMC 1,5/ 2-G1F-3,5-LR P26THR

PCB header, Reflow/wave soldering



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

## 1 Main features



- |                         |                     |                        |                     |
|-------------------------|---------------------|------------------------|---------------------|
| • No. of pos.           | 2                   | • Nominal current      | 8 A                 |
| • Nominal cross section | 1.5 mm <sup>2</sup> | • Nominal voltage      | 160 V               |
| • Color                 | black (9005)        | • Connection direction | 0 °                 |
| • Pitch                 | 3.5 mm              | • Type of packaging    | packed in cardboard |
| • Mounting type         | THR soldering       |                        |                     |

## 2 Your advantages

- ✓ Designed for integration into the SMT soldering process
- ✓ Screwable flange for superior mechanical stability
- ✓ Automatic locking and intuitive release through Lock and Release operating lever in contrasting color
- ✓ Conductor connection on several levels enables higher contact density
- ✓ Small component size for applications where space is at a premium



Make sure you always use the latest documentation.

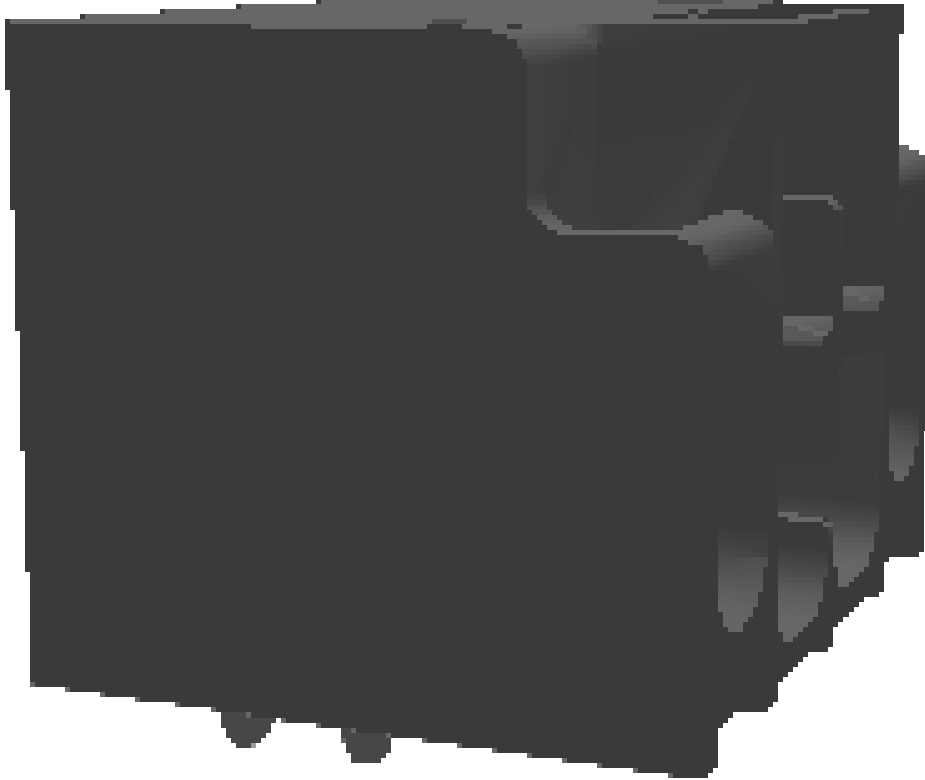
It can be downloaded at: [phoenixcontact.net/product/1874014](https://phoenixcontact.net/product/1874014)

**1874014 DMC 1,5/ 2-G1F-3,5-LR P26THR****3 Table of contents**

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1874014 DMC 1,5/ 2-G1F-3,5-LR P26THR

4 3D model in PDF can be activated (Acrobat Reader only)



**1874014 DMC 1,5/ 2-G1F-3,5-LR P26THR****5 General Technical Data****5.1 item properties**

Order No.	1874014
Type	DMC 1,5/ 2-G1F-3,5-LR P26THR
Plug-in system	MINI COMBICON - DFMC 1,5
Product type	PCB header
Type of contact	Male connector
Range of articles	DMC 1,5/..-G1F-THR
Pitch	3.5 mm
Number of positions	2
Number of levels	2
Number of connections	4
Number of potentials	4
Mounting type	THR soldering
Connection direction of the connector to the PCB	0 °
Pin layout	Linear pinning
Solder pins per potential	1
Type	Headers

**1874014 DMC 1,5/ 2-G1F-3,5-LR P26THR****6 Mounting****6.1 Flange mounting**

Type of locking	Snap-in locking
Mounting flange	Lock & release threaded flange

**7 Material properties****7.1 Material of metal parts**

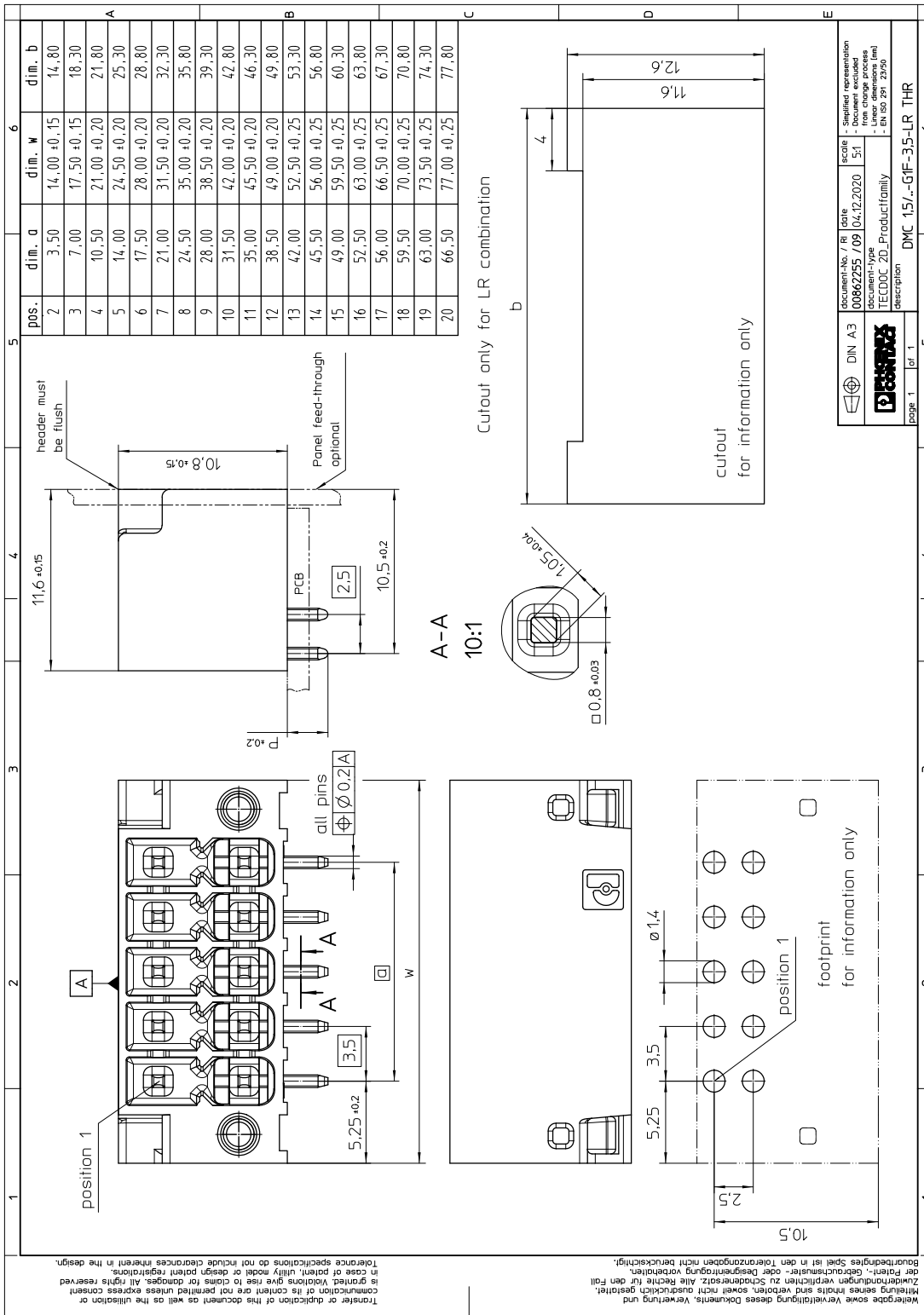
Note	WEEE/RoHS-compliant, whisker-free acc. to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Surface contact area	Nickel (1 - 3 µm Ni) , Tin (3 - 5 µm Sn)
Soldering area surface	Nickel (1 - 3 µm Ni) , Tin (3 - 5 µm Sn)
Surface characteristics	Tin-plated
<b>Insulating material data</b>	<b>Housing</b>
Color	black (9005)
Insulating material	LCP
Insulating material group	IIIa
CTI according to IEC 60112	175
Flammability rating according to UL 94	V0

**1874014 DMC 1,5/ 2-G1F-3,5-LR P26THR****8 Dimensions****8.1 Dimensions for the product**

Length	11.6 mm
Width	14 mm
Height (without solder pin)	10.8 mm
Total height	13.4 mm
Solder pin [P]	2.6 mm

1874014 DMC 1,5/ 2-G1F-3,5-LR P26THR

9 Series drawing



**1874014 DMC 1,5/ 2-G1F-3,5-LR P26THR****10 Application****11 Packaging information**

Type of packaging	packed in cardboard
Pieces per package	50

**11.1 Processing notes**

Process	Reflow/wave soldering
Specification	Following IPC/JEDEC J-STD-020D.1:2008-03
Specification	Following IEC 60068-2-54:2006-04
Specification	Following IEC 60068-2-58:2005-02
Moisture Sensitive Level	MSL 1
Classification temperature $T_c$	max. 260 °C
Solder cycles in the reflow	3
swash circumference	see dimensional drawing

**11.2 Temperature limit values**

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)

**1874014 DMC 1,5/ 2-G1F-3,5-LR P26THR****12 Mechanical tests****12.1 Visual examination**

Specification	IEC 61984:2008-10
Visual examination	Test passed
Specification	IEC 60512-1-1:2002-02

**12.2 Dimensional test**

Dimensional test	Test passed
Specification	IEC 60512-1-2:2002-02

**12.3 Resistance of marking**

Resistance of marking	Test passed
Specification	IEC 60068-2-70:1995-12

**12.4 Polarization and coding**

Polarization and coding	Test passed
Specification	IEC 60512-13-5:2006-02
Test force	20 N

**12.5 Contact retention in insert**

Contact holder in insert Requirements >20 N	Test passed
Specification	IEC 60512-15-1:2008-05

**1874014 DMC 1,5/ 2-G1F-3,5-LR P26THR****13 Insertion and withdrawal forces**

Insertion and withdrawal force	
Specification	Test passed
No. of cycles	25
Insertion strength per pos. approx.	3 N
Withdraw strength per pos. approx.	2 N

**1874014 DMC 1,5/ 2-G1F-3,5-LR P26THR****14 Electrical tests**

Rated current / conductor cross section	8 A / 1.5 mm <sup>2</sup>
Rated insulation voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV
Contact resistance	2 mΩ
Degree of pollution	2

**14.1 Air and creepage distances**

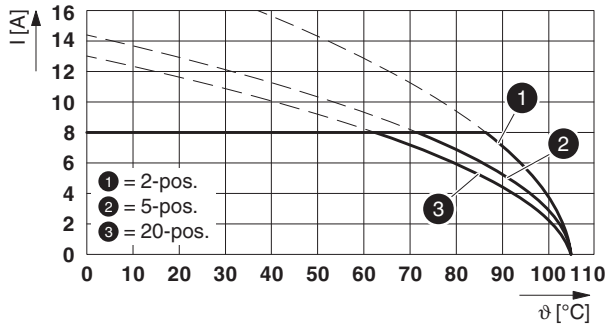
Component	PCB header		
Specification	IEC 60664-1:2007-04		
Mains type	unearthed mains		
Insulating material group	IIIa		
Comparative tracking index (IEC 60112:2003-01)	CTI 175		
Rated insulation voltage	160 V	160 V	250 V
Rated surge voltage	2.5 kV	2.5 kV	2.5 kV
Degree of pollution	3	2	2
Overvoltage category	III	III	II
Minimum clearance case A (inhomogeneous field)	1.5 mm	1.5 mm	1.5 mm
Minimum value of the creepage path requirement in acc. with table	2.5 mm	1.6 mm	2.5 mm

1874014 DMC 1,5/ 2-G1F-3,5-LR P26THR

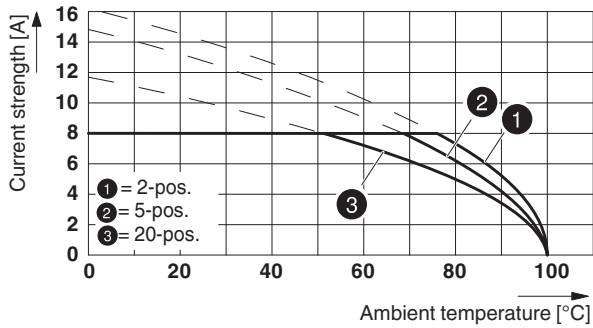
15 Current carrying capacity/derating curves

Specification	IEC 61984:2008-10
Note	Representation based on IEC 60512-5-2:2002-02
Note	For number of positions, see diagram
Reduction factor	0.8
Conductor cross section	1.5 mm <sup>2</sup>

Type: DFMC 1,5/...-ST-3,5-LR with DMC 1,5/...-G1F-3,5-LR P...THR







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



**1874014 DMC 1,5/ 2-G1F-3,5-LR P26THR****16 Environmental and durability tests****16.1 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	50 m/s <sup>2</sup> (60.1 - 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis
Note	

**1874014 DMC 1,5/ 2-G1F-3,5-LR P26THR****17 Approvals / Certificates**

IECEE CB Scheme 	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm <sup>2</sup> ]
	160 V	8 A	-	-
EAC 				
VDE Gutachten mit Fertigungsüberwachung 	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm <sup>2</sup> ]
	160 V	8 A	-	-
cULus Recognized 	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm <sup>2</sup> ]
<b>Usegroup B</b>				
	150 V	8 A	-	-
<b>Usegroup C</b>				
	50 V	8 A	-	-
<b>Usegroup D</b>				
	300 V	8 A	-	-
VDE Gutachten mit Fertigungsüberwachung 	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm <sup>2</sup> ]
	160 V	8 A	-	-

**1874014 DMC 1,5/ 2-G1F-3,5-LR P26THR****18 Commercial Data**

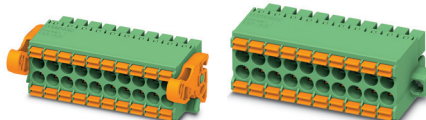
Order No.	1874014
Type	DMC 1,5/ 2-G1F-3,5-LR P26THR
Pieces per package	50
Net weight	2.324 g
GTIN	4055626259291
	Information that applies locally, see link on page 1
	Information that applies locally, see link on page 1

**19 corresponding plugs**

Order No.	Type
1790292	DFMC 1,5/ 2-STF-3,5
1790483	DFMC 1,5/ 2-ST-3,5-LR

## 1874014 DMC 1,5/ 2-G1F-3,5-LR P26THR

## 20 Combination tests

**DMC 1,5/..-G1F-THR****DFMC 1,5/..-ST-LR****DFMC 1,5/..-STF**

IEC 61984

IEC 61984

IEC 61984

**Mechanical tests (A)**

Insertion/withdrawal force per position

approx. 3 N / 2 N

approx. 3 N / 2 N

Polarization when inserted  
Requirement >20 N

Test passed

Test passed

Contact holder in insert  
Requirements >20 N

Test passed

Test passed

**Durability tests (B)**Contact resistance R<sub>1</sub> 1st level

2 mΩ

2.1 mΩ

Contact resistance R<sub>1</sub> 2nd level

Insertion/withdrawal cycles

25

25

Contact resistance R<sub>2</sub>

2.3 mΩ

2.4 mΩ

Rated impulse voltage at sea level  
Voltage waveform ≥ (1.2/50 μs)

2.95 kV

2.95 kV

Power-frequency withstand voltage  
Voltage waveform ≥ (50/60 Hz)

1.39 kV

1.39 kV

**Thermal tests (C)**

Tested number of positions

20

20

Tested conductor cross section

1.5 mm<sup>2</sup>1.5 mm<sup>2</sup>

Test current

8 A

8 A DC

Upper limiting temperature  
Requirements < 100°C

Test passed

Test passed

**Climatic tests (D)**

Test sequence 1: low temperature storage

-40 °C/2 h

-40 °C/2 h

Test sequence 2: heat storage

105 °C/168 h

100 °C/168 h

Test sequence 3: noxious gas storage  
(ISO 6988)0.2 dm<sup>3</sup> SO<sub>2</sub> on 300 dm<sup>3</sup>/  
40 °C/1 cycle0.2 dm<sup>3</sup> SO<sub>2</sub> on 300 dm<sup>3</sup>/  
40 °C/1 cycleRated impulse voltage at sea level  
Voltage waveform ≥ (1.2/50 μs)

2.95 kV

2.95 kV

Power-frequency withstand voltage  
Voltage waveform ≥ (50/60 Hz)

1.39 kV

1.39 kV

**Environmental and endurance tests (E)**

Specification

IEC 61984:2008-10

IEC 61984:2008-10

Degree of protection

Finger safety with IP20  
test fingerFinger safety with IP20  
test finger