

MCDNV 1,5/ 5-G1-3,5 RNP26THR - PCB header



1952487

<https://www.phoenixcontact.com/us/products/1952487>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



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: Pin, number of potentials: 10, number of rows: 2, number of positions: 5, number of connections: 10, product range: MCDNV 1,5/...-G1-RN-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 MC 1,5, Pin connector pattern alignment: Standard, locking: Snap-in locking, mounting: Engagement nose, type of packaging: packed in cardboard, Article with engagement nose. The pin length is 2.6 mm. User information and design recommendations on Through Hole Reflow Technology can be found at: "Downloads"

Your advantages

- Designed for integration into the SMT soldering process
- Intuitive locking mechanism prevents accidental disconnection
- Vertical connection enables multi-row arrangement on the PCB

Commercial data

Item number	1952487
Packing unit	55 pc
Minimum order quantity	55 pc
Sales key	AA02
Product key	AABTGC
Catalog page	Page 221 (C-1-2013)
GTIN	4017918919832
Weight per piece (including packing)	4.44 g
Weight per piece (excluding packing)	3.264 g
Customs tariff number	85366930
Country of origin	DE

1952487

<https://www.phoenixcontact.com/us/products/1952487>

Technical data

Product properties

Product type	PCB headers
Product family	MCDNV 1,5/..-G1-RN-THR
Product line	COMBICON Connectors S
Type	Component suitable for through hole reflow
Number of positions	5
Pitch	3.5 mm
Number of connections	10
Number of rows	2
Number of potentials	10
Mounting flange	Engagement nose
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	1.8 m Ω
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

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)

Material data - housing

MCDNV 1,5/ 5-G1-3,5 RNP26THR - PCB header



1952487

<https://www.phoenixcontact.com/us/products/1952487>

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

Notes

Details for soldering processes	Processing using reflow processes in compliance with IEC 60068-2-58 or DIN EN 61760-1 (latest version) Moisture Sensitive Level (MSL) = 1 according to IPC/JEDEC J-STD-020-C
---------------------------------	---

Dimensions

Dimensional drawing	
Pitch	3.5 mm
Width [w]	21.2 mm
Height [h]	15.9 mm
Length [l]	15.2 mm
Installed height	13.3 mm
Solder pin length [P]	2.6 mm
Pin dimensions	0.8 x 0.8 mm

PCB design

Pin spacing	8.30 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

MCDNV 1,5/ 5-G1-3,5 RNP26THR - PCB header



1952487

<https://www.phoenixcontact.com/us/products/1952487>

Contact holder in insert

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

Insertion and withdrawal forces

Result	Test passed
No. of cycles	25
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	6 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)
Acceleration	5g (60.1 Hz ... 150 Hz)

MCDNV 1,5/ 5-G1-3,5 RNP26THR - PCB header



1952487

<https://www.phoenixcontact.com/us/products/1952487>

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	1.8 m Ω
Contact resistance R_2	2 m Ω
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 5 M Ω

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

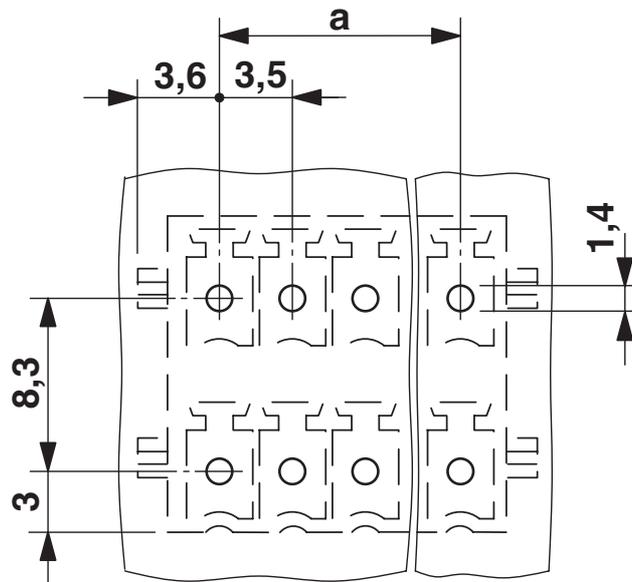
Ambient temperature (operation)	-40 °C ... 100 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

Packaging specifications

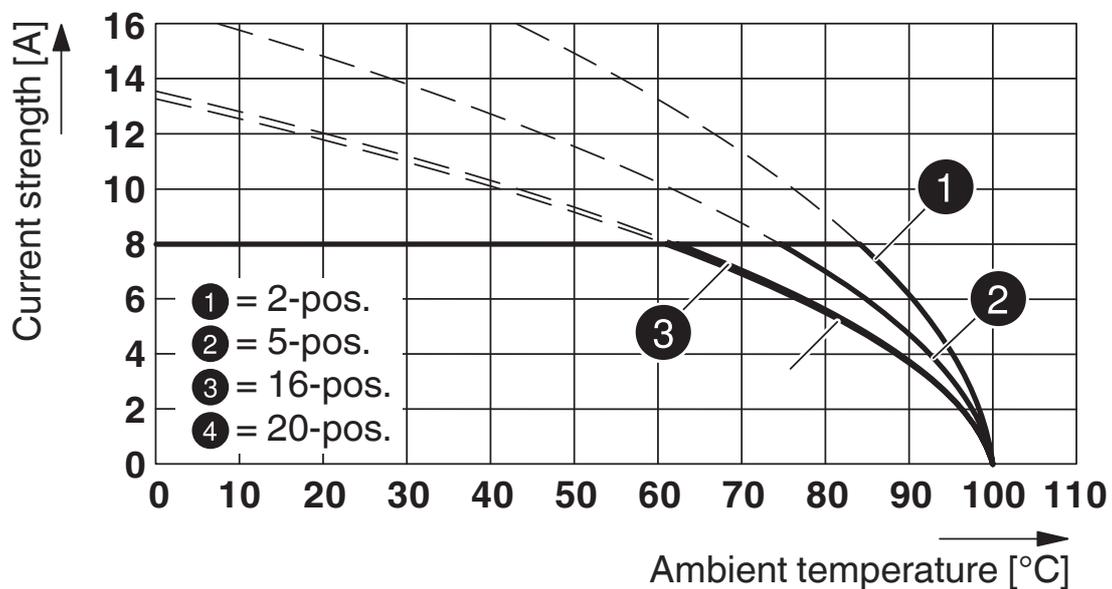
Type of packaging	packed in cardboard
-------------------	---------------------

Drawings

Drilling plan/solder pad geometry



Diagram



Type: FMC 1,5/...-ST-3,5-RF with MCDNV 1,5/...-G1-3,5 RNP...THR

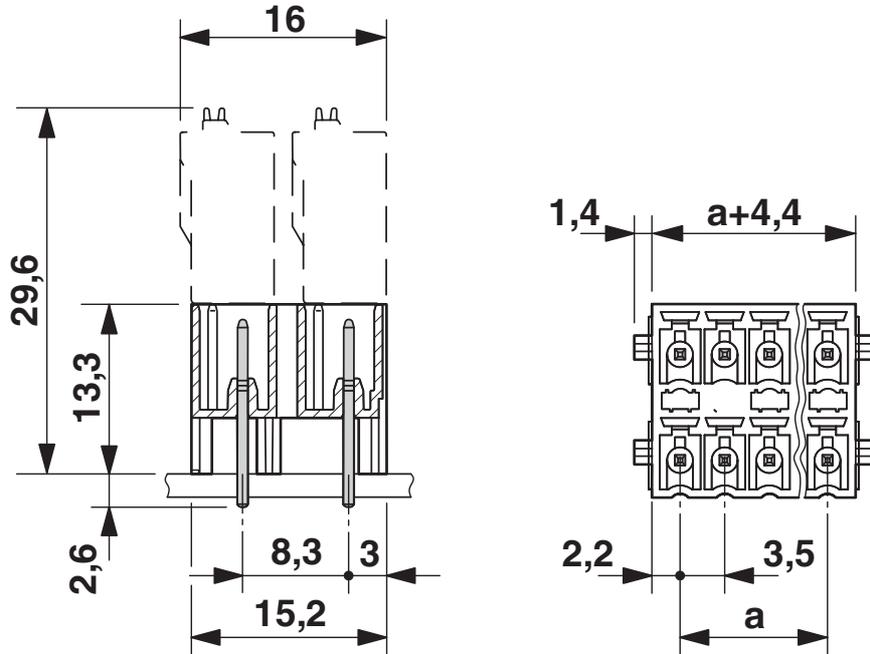
MCDNV 1,5/ 5-G1-3,5 RNP26THR - PCB header



1952487

<https://www.phoenixcontact.com/us/products/1952487>

Dimensional drawing



MCDNV 1,5/ 5-G1-3,5 RNP26THR - PCB header



1952487

<https://www.phoenixcontact.com/us/products/1952487>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1952487>

 cULus Recognized Approval ID: E60425-20110128				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B	150 V	8 A	-	-
Use group D	150 V	8 A	-	-

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

MCDNV 1,5/ 5-G1-3,5 RNP26THR - PCB header



1952487

<https://www.phoenixcontact.com/us/products/1952487>

Classifications

ECLASS

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

ETIM

ETIM 9.0	EC002637
----------	----------

UNSPSC

UNSPSC 21.0	39121400
-------------	----------

MCDNV 1,5/ 5-G1-3,5 RNP26THR - PCB header



1952487

<https://www.phoenixcontact.com/us/products/1952487>

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%
-------------------------------------	----------------------------

MCDNV 1,5/ 5-G1-3,5 RNP26THR - PCB header



1952487

<https://www.phoenixcontact.com/us/products/1952487>

Accessories

CP-MSTB - Coding profile

1734634

<https://www.phoenixcontact.com/us/products/1734634>

Coding profile, is inserted into the slot on the plug or inverted header, red insulating material



FMC 1,5/ 5-ST-3,5-RF GY7035 - PCB connectors

1051213

<https://www.phoenixcontact.com/us/products/1051213>

PCB connector, nominal cross section: 1.5 mm², color: light grey, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Socket, number of rows: 1, number of positions: 5, product range: FMC 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



MCDNV 1,5/ 5-G1-3,5 RNP26THR - PCB header

1952487

<https://www.phoenixcontact.com/us/products/1952487>

FMC 1,5/ 5-ST-3,5-RF BKLCGY35 - PCB connectors

1190246

<https://www.phoenixcontact.com/us/products/1190246>



PCB connector, 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 rows: 1, number of positions: 5, product range: FMC 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

FMC 1,5/ 5-ST-3,5-RF BK - PCB connectors

1372419

<https://www.phoenixcontact.com/us/products/1372419>



PCB connector, 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 rows: 1, number of positions: 5, product range: FMC 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

MCDNV 1,5/ 5-G1-3,5 RNP26THR - PCB header



1952487

<https://www.phoenixcontact.com/us/products/1952487>

FMC 1,5/ 5-ST-3,5-RF GY - PCB connectors

1372420

<https://www.phoenixcontact.com/us/products/1372420>



PCB connector, nominal cross section: 1.5 mm², color: gray, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Socket, number of rows: 1, number of positions: 5, product range: FMC 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

FMC 1,5/ 5-ST-3,5-RF - PCB connectors

1952050

<https://www.phoenixcontact.com/us/products/1952050>



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: Socket, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: FMC 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

Phoenix Contact 2024 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com