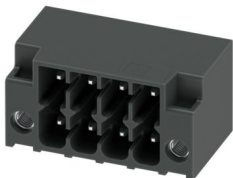


DMC 1,5/ 4-G1F-3,5-LRP20THRR44 - PCB header



1818520
<https://www.phoenixcontact.com/us/products/1818520>

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: Sn, contact connection type: Pin, number of potentials: 8, number of rows: 2, number of positions: 4, number of connections: 8, product range: DMC 1,5/...G1F-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2 mm, number of solder pins per potential: 1, plug-in system: COMBICON DFMC 1,5, Pin connector pattern alignment: Standard, locking: Lock-and-release locking system, mounting method: Lock & release threaded flange, type of packaging: 44 mm wide tape

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

Commercial data

Item number	1818520
Packing unit	180 pc
Minimum order quantity	180 pc
Sales key	AA02
Product key	AABTJA
GTIN	4046356757638
Weight per piece (including packing)	5.422 g
Weight per piece (excluding packing)	5.4 g
Customs tariff number	85366930
Country of origin	DE

DMC 1,5/ 4-G1F-3,5-LRP20THRR44 - PCB header



1818520

<https://www.phoenixcontact.com/us/products/1818520>

Technical data

Product properties

Product type	PCB headers
Product family	DMC 1,5/...-G1F-THR
Product line	COMBICON Connectors S
Type	Headers
Number of positions	4
Pitch	3.5 mm
Number of connections	8
Number of rows	2
Number of potentials	8
Mounting flange	Lock & release threaded flange
Pin layout	Linear pinning
Solder pins per potential	1

Electrical properties

Properties

Nominal current I_N	8 A
Nominal voltage U_N	160 V
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
-------------------	--------

Processing notes

Process	Reflow/wave soldering
Moisture Sensitive Level	MSL 1
Classification temperature T_c	260 °C
Solder cycles in the reflow	3

Material specifications

Material data - contact

DMC 1,5/ 4-G1F-3,5-LRP20THRR44 - PCB header



1818520

<https://www.phoenixcontact.com/us/products/1818520>

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

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]	21 mm
Height [h]	12.8 mm
Length [l]	11.6 mm
Installed height	10.8 mm
Solder pin length [P]	2 mm
Pin dimensions	0.8 x 0.8 mm

PCB design

Pin spacing	2.50 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
---------------	------------------------

DMC 1,5/ 4-G1F-3,5-LRP20THRR44 - PCB header



1818520

<https://www.phoenixcontact.com/us/products/1818520>

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
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.	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
---------------	-----------------------

DMC 1,5/ 4-G1F-3,5-LRP20THRR44 - PCB header



1818520

<https://www.phoenixcontact.com/us/products/1818520>

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)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis

Durability test

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

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

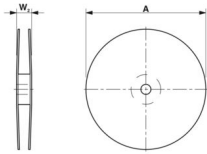
Shocks

Specification	IEC 60068-2-27:2008-02
Pulse shape	Semi-sinusoidal
Acceleration	30g
Shock duration	18 ms
Test directions	X-, Y- and Z-axis (pos. and neg.)

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

Dimensional drawing	
Type of packaging	44 mm wide tape
[W] tape width	44 mm
[W2] coil overall dimension	≤ 50.4 mm
[A] coil diameter	≤ 330 mm
Outer packaging type	Transparent-Bag
ESD level	(D) electrostatically conductive

DMC 1,5/ 4-G1F-3,5-LRP20THRR44 - PCB header



1818520

<https://www.phoenixcontact.com/us/products/1818520>

Specification	DIN EN 61340-5-1 (VDE 0300-5-1): 2008-07
---------------	--

DMC 1,5/ 4-G1F-3,5-LRP20THRR44 - PCB header

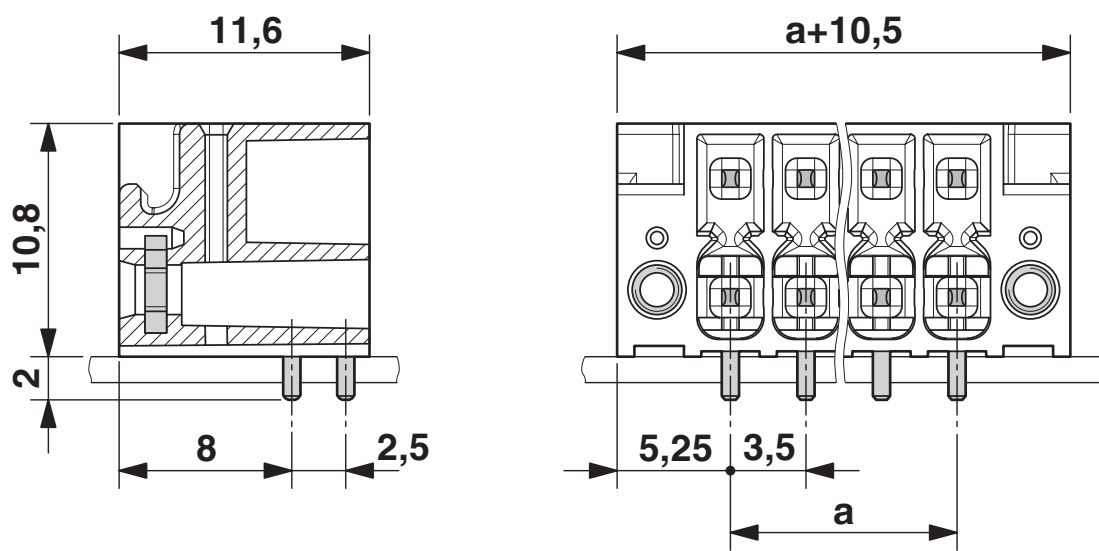


1818520

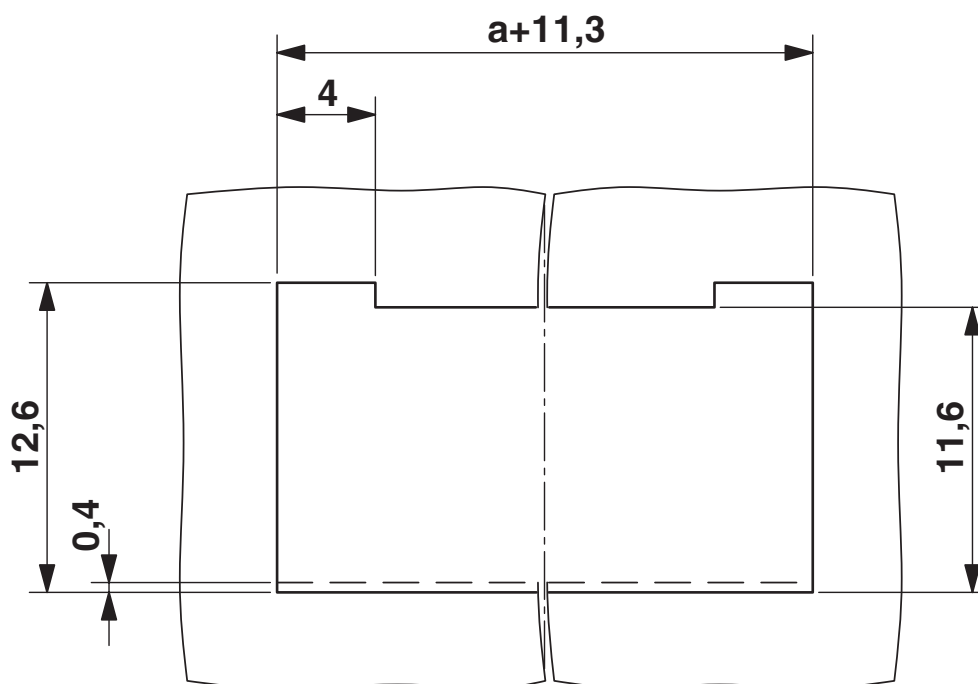
<https://www.phoenixcontact.com/us/products/1818520>

Drawings

Dimensional drawing



Schematic diagram



Panel cutout

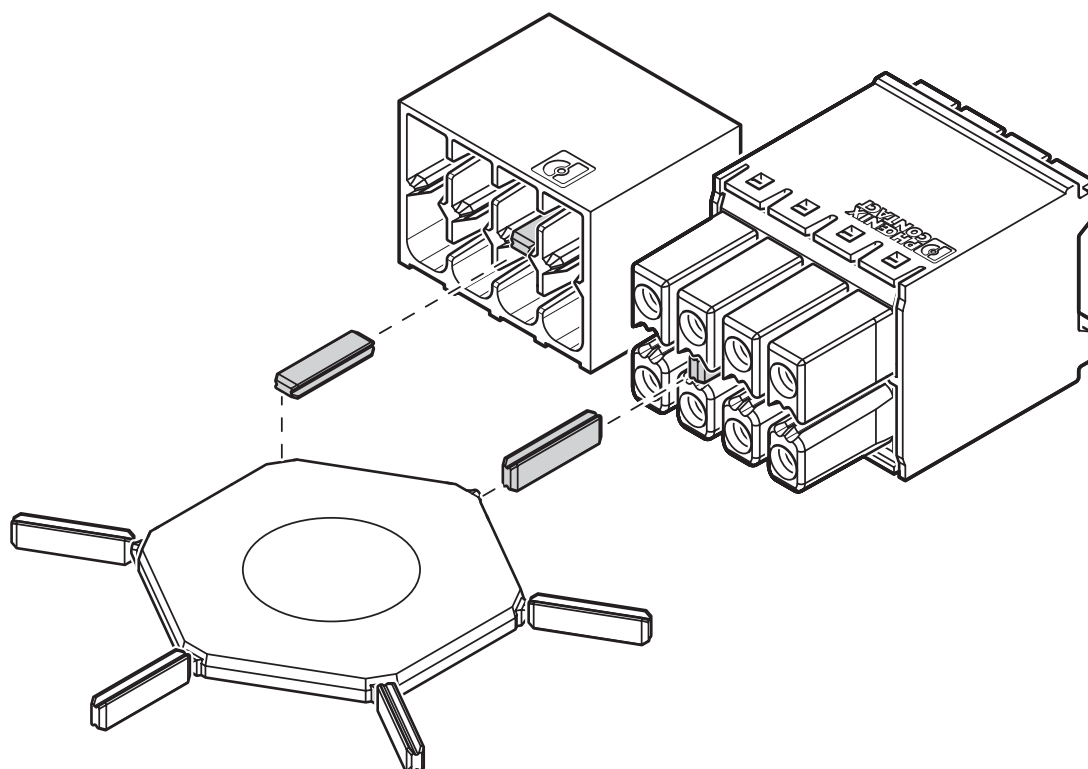
DMC 1,5/ 4-G1F-3,5-LRP20THRR44 - PCB header

1818520

<https://www.phoenixcontact.com/us/products/1818520>



Schematic diagram



Use of the CP-DMC... coding profile

Diagram

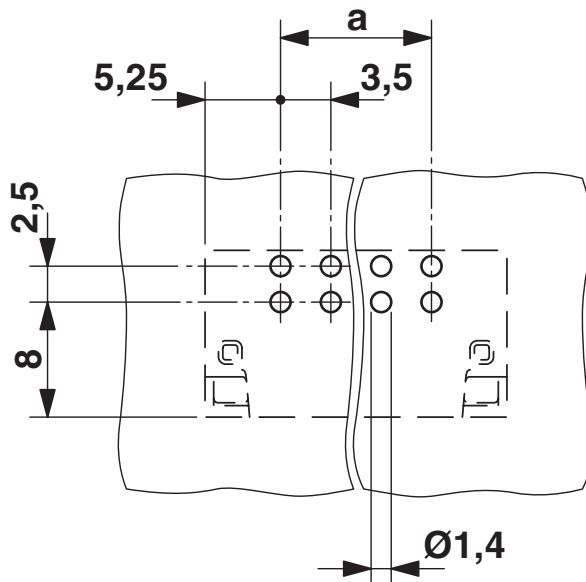


Type: DFMC 1,5/...-STF-3,5 with DMC 1,5/...-G1F-3,5-LR P...THR



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

Drilling plan/solder pad geometry



DMC 1,5/ 4-G1F-3,5-LRP20THRR44 - PCB header



1818520

<https://www.phoenixcontact.com/us/products/1818520>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1818520>

 cULus Recognized Approval ID: E60425-20110128				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B	300 V	8 A	-	-
Use group C	50 V	8 A	-	-
Use group D	300 V	8 A	-	-

 VDE report with production monitoring Approval ID: 40038423				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	160 V	8 A	-	-

DMC 1,5/ 4-G1F-3,5-LRP20THRR44 - PCB header



1818520

<https://www.phoenixcontact.com/us/products/1818520>

Classifications

ECLASS

ECLASS-13.0	27460201
ECLASS-15.0	27460201

ETIM

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

UNSPSC

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

DMC 1,5/ 4-G1F-3,5-LRP20THRR44 - PCB header



1818520
<https://www.phoenixcontact.com/us/products/1818520>

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%

Phoenix Contact 2025 © - 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