

Printed-circuit board connector - DMC 0,5/10-G1-2,54 SMD R44 - 1845108

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PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of positions: 10, pitch: 2.54 mm, color: black, contact surface: Gold, mounting: SMD soldering, pin layout: Linear pad geometry, solder pin [P]: 2 mm, Sample values available under SAMPLE DMC...



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

Your advantages

- ✓ Gold-plated contacts ensure transfer quality remains stable over the long term
- ✓ Designed for integration into the SMT soldering process
- ✓ Conductor connection on several levels enables higher contact density
- ✓ Integrated solder anchors reduce the mechanical strain on the soldering spots
- ✓ Small component size for applications where space is at a premium
- ✓ Supplied in tape-on-reel packing according to IEC 60286-3 for automated mounting



Key Commercial Data

Packing unit	300 pc
Minimum order quantity	300 pc
GTIN	
GTIN	4046356964647

Technical data

Item properties

Brief article description	Feed-through header
Plug-in system	MICRO COMBICON - DFMC 0,5
Type of contact	Male connector
Range of articles	DMC 0,5/...G1-SMD
Pitch	2.54 mm
Number of positions	10
Mounting type	SMD soldering

Printed-circuit board connector - DMC 0,5/10-G1-2,54 SMD R44 - 1845108

Technical data

Item properties

Pin layout	Linear pad geometry
Locking	without
Number of levels	2
Number of connections	20
Number of potentials	20

Electrical parameters

Nominal current	6 A
Nom. voltage	160 V
Rated voltage	32 V
Rated voltage (III/2)	160 V
Rated voltage (II/2)	160 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	Completely gold-plated
Metal surface contact area (top layer)	Gold (0.25 Au)
Metal surface contact area (middle layer)	Nickel (2 - 4 µm Ni),
Metal surface soldering area (top layer)	Gold (0.25 Au)
Metal surface soldering area (middle layer)	Nickel (2 - 4 µm Ni)

Material data - housing

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

Dimensions for the product

Length [l]	12.26 mm
Width [w]	25.9 mm
Height [h]	11.39 mm
Pitch	2.54 mm
Height (without solder pin)	9.39 mm
Solder pin [P]	2 mm
Pin spacing	2.54 mm
Pin dimensions	0.64 x 0.64 mm

Printed-circuit board connector - DMC 0,5/10-G1-2,54 SMD R44 - 1845108

Technical data

Dimensions for PCB design

Hole diameter	1.2 mm
Pin spacing	2.54 mm

Packaging information

Type of packaging	44 mm wide tape
Pieces per package	300
Denomination packing units	Pcs.
[W] tape width	44 mm
[A] coil diameter	330 mm
[W2] coil overall dimension	50.4 mm
Outer packaging type	Transparent-Bag
ESD level	(D) electrostatically conductive
Specification	DIN EN 61340-5-1 (VDE 0300-5-1): 2008-07

Processing notes

Process	Reflow soldering
Specification	Following IPC/JEDEC J-STD-020D.1:2008-03
	Following IEC 60068-2-58:2005-02
Moisture Sensitive Level	MSL 1
Classification temperature T _c	260 °C
Solder cycles in the reflow	3

Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 105 °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)	1.3 mm
Minimum creepage distance value (III/2)	1.6 mm
Minimum creepage distance value (II/2)	1.6 mm

Mechanical tests (A)

Test specification	IEC 61984
Insertion strength per pos. approx.	2 N
Withdraw strength per pos. approx.	1 N
Polarization when inserted requirement >20 N	Test passed

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Technical data

Mechanical tests (A)

Contact holder in insert requirements >20 N	Test passed
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Durability tests (B)

Specification	IEC 60512-9-1:2010-03
Contact resistance R ₁	2.8 mΩ
Insertion/withdrawal cycles	100
Contact resistance R ₂	2.9 mΩ
Impulse withstand voltage at sea level	2.95 kV
Power-frequency withstand voltage	1.39 kV
Insulation resistance, neighboring positions	> 4 GΩ

Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	16
Conductor cross section	0.5 mm ²
Test current	6 A
Upper limiting temperature requirements <100 °C	Test passed

Climatic tests (D)

Specification	DIN 50018:2013-05
Cold stress	-40 °C/2 h
Thermal stress	105 °C/168 h
Corrosive stress	1.0 dm ³ SO ₂ on 300 dm ³ /40 °C/3 cycles
Impulse withstand voltage at sea level	2.95 kV
Power-frequency withstand voltage	1.39 kV

Environmental and durability tests (E)

Specification	IEC 61984:2008-10
Result, degree of protection, IP code	Finger safety with IP20 test finger

Vibration test

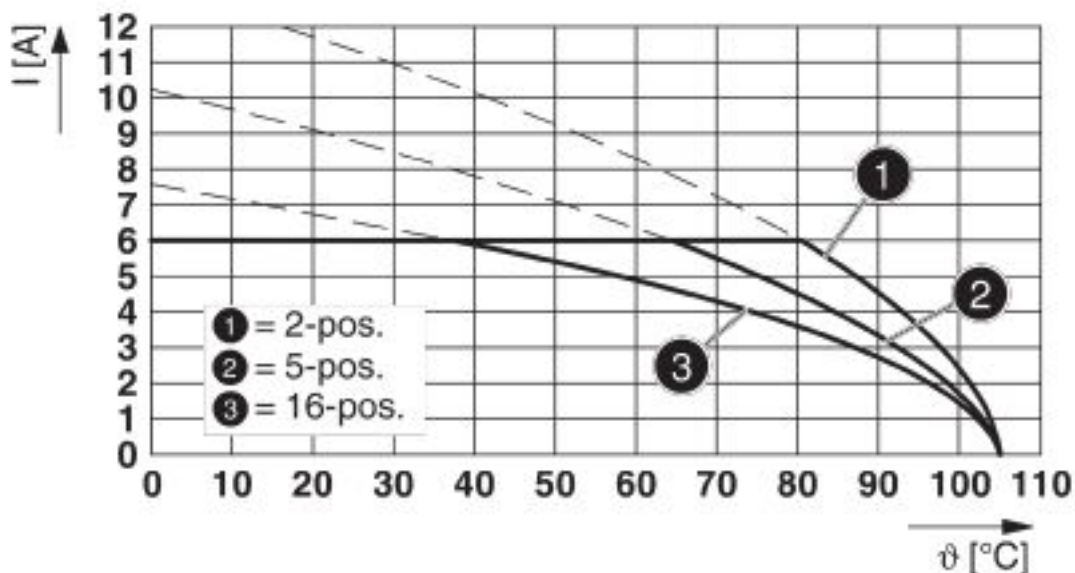
Specification	IEC 60068-2-6:2007-12
Result	Test passed
Frequency	10 - 500 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 - 60.1 Hz)
Acceleration	5g (60.1 - 500 Hz)
Test duration per axis	2 h

Standards and Regulations

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

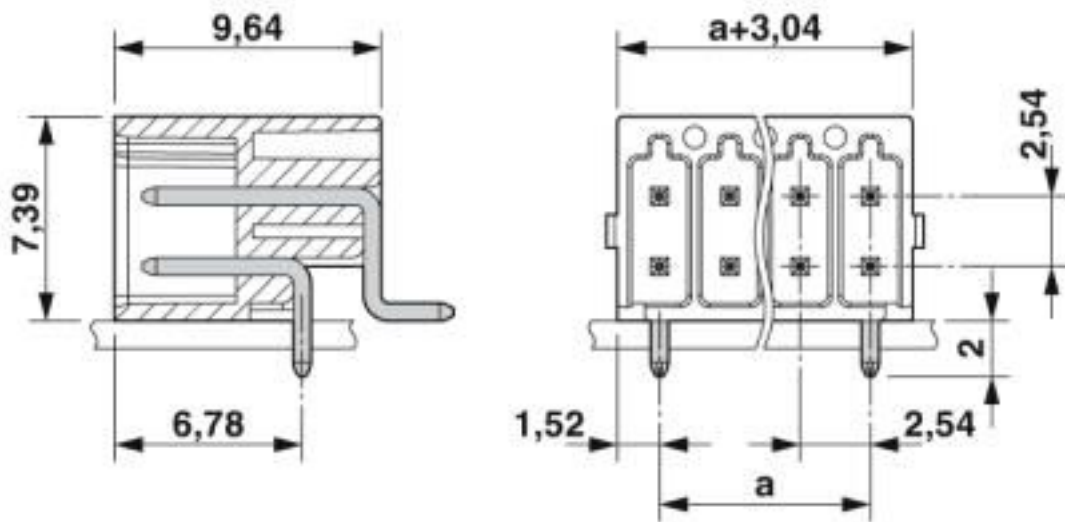
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Diagram



Type: DFMC 0,5/...-ST-2,54 with DMC 0,5/...-G1-2,54 SMD R...

Dimensional drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27440402
eCl@ss 4.0	27260700
eCl@ss 4.1	27260700
eCl@ss 5.0	27260700

Printed-circuit board connector - DMC 0,5/10-G1-2,54 SMD R44 - 1845108

Classifications

eCl@ss

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 4.0	EC002637
ETIM 5.0	EC002637
ETIM 6.0	EC002637
ETIM 7.0	EC002637

UNSPSC

UNSPSC 13.2	39121409
UNSPSC 18.0	39121409
UNSPSC 19.0	39121409
UNSPSC 20.0	39121409
UNSPSC 21.0	39121409

Approvals


Approvals

Approvals

IECEE CB Scheme / VDE Gutachten mit Fertigungsüberwachung / EAC / cULus Recognized

Ex Approvals

Approval details

IECEE CB Scheme		http://www.iecee.org/	DE1-59151-M1
Nominal voltage UN	160 V		
Nominal current IN	6 A		

Printed-circuit board connector - DMC 0,5/10-G1-2,54 SMD R44 - 1845108

Approvals

VDE Gutachten mit Fertigungsüberwachung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40042389
Nominal voltage UN		160 V	
Nominal current IN		6 A	

EAC		B.01687
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cULus Recognized		http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm	E60425-19920306
	B	C	
Nominal voltage UN	150 V	50 V	
Nominal current IN	6 A	6 A	

Accessories

Accessories

Labeled terminal marker

Marker card - SK 2,54/2,8:FORTL.ZAHLEN - 0804853



Marker card, Card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 99, mounting type: adhesive, for terminal block width: 2.54 mm, lettering field size: 2.54 x 2.8 mm

PCB headers

Sample set - SAMPLE DMC 0,5/10-G1-2,54 SMD - 1859877



PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of positions: 10, pitch: 2.54 mm, color: black, contact surface: Gold, mounting: SMD soldering, pin layout: Linear pad geometry, solder pin [P]: 2 mm

Additional products

Printed-circuit board connector - DMC 0,5/10-G1-2,54 SMD R44 - 1845108

Accessories

Printed-circuit board connector - DFMC 0,5/10-ST-2,54 - 1844659



Plug, nominal current: 6 A, rated voltage (III/2): 160 V, number of positions: 10 with 20 contacts, pitch: 2.54 mm, connection method: spring connection, color: black, contact surface: gold

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