

Sample set - SAMPLE DMC 0,5/12-G1-2,54 THR - 1859592

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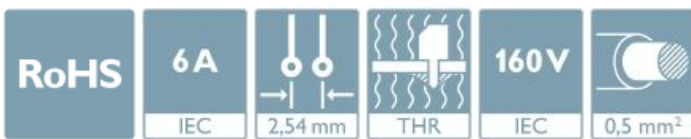


The figure shows a 10-pos. version with 20 contacts


PCB header, nominal cross section: 0.5 mm², color: black, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Gold, type of contact: Male connector, Number of potentials: 24, Number of rows: 2, Number of positions per row: 12, number of connections: 24, product range: DMC 0,5/...-G1-THR, pitch: 2.54 mm, mounting: THR soldering, solder pin [P]: 2 mm, plug-in system: MICRO COMBICON - DFMC 0,5, Locking: without, type of packaging: packed in cardboard

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
- 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 | 5 pc |
| Minimum order quantity | 5 pc |
| GTIN |  4 055626 111995 |
| GTIN | 4055626111995 |
| Weight per Piece (excluding packing) | 4.030 g |
| Custom tariff number | 85366990 |
| Country of origin | Poland |
| Sales Key | AAADGB |

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-THR |
| Pitch | 2.54 mm |

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Technical data

Item properties

| | |
|---------------------------------|---------------|
| Number of positions | 12 |
| Mounting type | THR soldering |
| Locking | without |
| Number of levels | 2 |
| Number of connections | 24 |
| Number of potentials | 24 |
| Pin connector pattern alignment | Standard |

Electrical parameters

| | |
|-----------------------------|--------|
| Nominal current | 6 A |
| Nom. voltage | 160 V |
| Rated voltage (III/3) | 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

| | |
|----------------|--|
| Caption | Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center |
| Length [l] | 9.64 mm |
| Width [w] | 30.98 mm |
| Height [h] | 7.39 mm |
| Pitch | 2.54 mm |
| Solder pin [P] | 2 mm |
| Pin spacing | 2.54 mm |

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Technical data

Dimensions for the product

| | |
|----------------|----------------|
| Pin dimensions | 0.64 x 0.64 mm |
|----------------|----------------|

Dimensions for PCB design

| | |
|---------------|---------|
| Hole diameter | 1.2 mm |
| Pin spacing | 2.54 mm |

Packaging information

| | |
|----------------------------|---------------------|
| Type of packaging | packed in cardboard |
| Pieces per package | 5 |
| Denomination packing units | Pcs. |

Processing notes

| | |
|---|--|
| Process | Reflow/wave soldering |
| Specification | Following IPC/JEDEC J-STD-020D.1:2008-03 |
| | Following IEC 61760-1:2006-04 |
| | 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 ... 100 °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 |
| Contact holder in insert requirements >20 N | Test passed |

Durability tests (B)

| | |
|-----------------------------------|-----------------------|
| Specification | IEC 60512-9-1:2010-03 |
| Contact resistance R ₁ | 2.7 mΩ |

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Technical data

Durability tests (B)

| | |
|---|---------|
| Insertion/withdrawal cycles | 100 |
| Contact resistance R ₂ | 2.9 mΩ |
| Contact resistance R ₂ 2nd level | 3.1 mΩ |
| Impulse withstand voltage at sea level | 2.95 kV |

Thermal tests (C)

| | |
|---|-----------------------|
| Specification | IEC 60512-5-1:2002-02 |
| Number of positions | 16 |
| Upper limiting temperature requirements <100 °C | Test passed |

Climatic tests (D)

| | |
|--|--|
| Specification | DIN 50018:2013-05 |
| Cold stress | -40 °C/2 h |
| Thermal stress | 100 °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 |
| 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 |

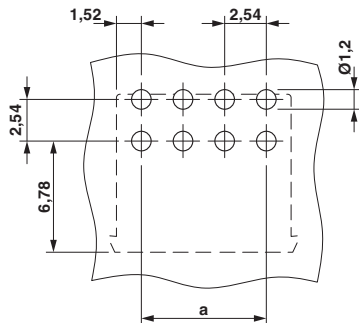
Environmental Product Compliance

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

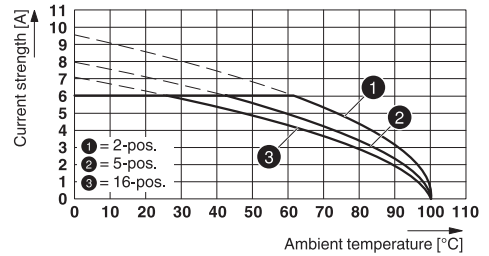
Drawings

Sample set - SAMPLE DMC 0,5/12-G1-2,54 THR - 1859592

Drilling diagram

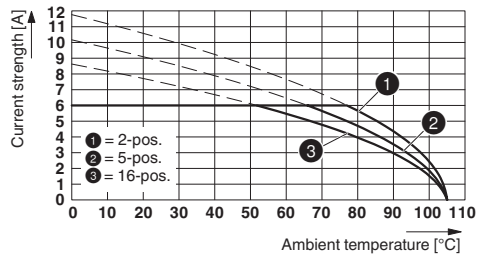


Diagram



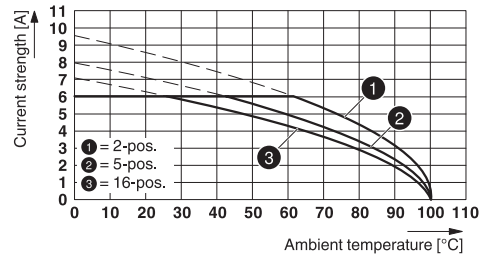
Type: DFMC 0,5/...-ST-2,54 with DMC 0,5/...-G1-2,54 P...THR R...

Diagram



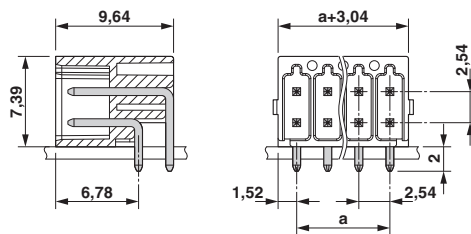
Type: DMCC 0,5/...-ST-2,54 with DMC 0,5/...-G1-2,54 P...THR R...

Diagram



Type: DFMC 0,5/...-ST-2,54-RF with DMC 1,5/...-G1-2,54 P...THR R...

Dimensional drawing



Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27440402 |
| eCl@ss 11.0 | 27460201 |
| eCl@ss 4.0 | 27260700 |
| eCl@ss 4.1 | 27260700 |
| eCl@ss 5.0 | 27260700 |
| eCl@ss 5.1 | 27260700 |
| eCl@ss 6.0 | 27260700 |
| eCl@ss 7.0 | 27440402 |
| eCl@ss 9.0 | 27440402 |

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Classifications

ETIM

| | |
|----------|----------|
| 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

EAC

Ex Approvals

Approval details

| | | |
|-----|--|---------|
| EAC | | B.01742 |
|-----|--|---------|

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

Additional products

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Accessories

Printed-circuit board connector - DFMC 0,5/12-ST-2,54 - 1844675



Plug, nominal current: 6 A, rated voltage (III/2): 160 V, number of positions: 12 with 24 contacts, pitch: 2.54 mm, connection method: spring connection, color: black, contact surface: gold