

DMC 0,5/ 4-G1-2,54 SMD R44 - PCB header



1845043

<https://www.phoenixcontact.com/us/products/1845043>

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: 0.5 mm², color: black, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Au, contact connection type: Pin, number of potentials: 8, number of rows: 2, number of positions: 4, number of connections: 8, product range: DMC 0,5/...-G1-SMD, pitch: 2.54 mm, mounting: SMD soldering, pin layout: Linear pad geometry, number of solder pins per potential: 1, plug-in system: COMBICON DFMC 0,5, Pin connector pattern alignment: Standard, locking: without, mounting method: without, type of packaging: 44 mm wide tape

Your advantages

- Gold-plated contacts ensure transfer quality remains stable over the long term
- Designed for integration into the SMT process
- Conductor connection on several levels enables higher contact density

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 1845043 |
| Packing unit | 300 pc |
| Minimum order quantity | 300 pc |
| Note | Made to order (non-returnable) |
| Sales key | AA01 |
| Product key | AAAUDA |
| GTIN | 4046356964562 |
| Weight per piece (including packing) | 2.69 g |
| Weight per piece (excluding packing) | 2.69 g |
| Customs tariff number | 85366930 |
| Country of origin | PL |

DMC 0,5/ 4-G1-2,54 SMD R44 - PCB header



1845043

<https://www.phoenixcontact.com/us/products/1845043>

Technical data

Product properties

| | |
|---------------------------|------------------------|
| Product type | PCB headers |
| Product family | DMC 0,5/...-G1-SMD |
| Product line | COMBICON Connectors XS |
| Number of positions | 4 |
| Pitch | 2.54 mm |
| Number of connections | 8 |
| Number of rows | 2 |
| Number of potentials | 8 |
| Mounting type | without |
| Pin layout | Linear pad geometry |
| Solder pins per potential | 1 |

Electrical properties

Properties

| | |
|-----------------------------|----------------|
| Nominal current I_N | 6 A |
| Nominal voltage U_N | 160 V |
| Contact resistance | 2.8 m Ω |
| Rated voltage (III/3) | 32 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) | 160 V |
| Rated surge voltage (II/2) | 2.5 kV |

Mounting

| | |
|---------------|---------------------|
| Mounting type | SMD soldering |
| Pin layout | Linear pad geometry |

Processing notes

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

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 | Completely gold-plated |

DMC 0,5/ 4-G1-2,54 SMD R44 - PCB header

1845043

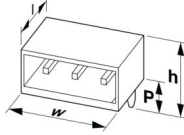
<https://www.phoenixcontact.com/us/products/1845043>

| | |
|---|-------------------------|
| Metal surface contact area (top layer) | Gold (min. 0.25 µm Au) |
| Metal surface contact area (middle layer) | Nickel (2 µm - 4 µm Ni) |
| Metal surface soldering area (top layer) | Gold (0.25 µm Au) |
| Metal surface soldering area (middle layer) | Nickel (2 µm - 4 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 | 2.54 mm |
| Width [w] | 14.74 mm |
| Height [h] | 7.39 mm |
| Length [l] | 12.26 mm |
| Pin dimensions | 0.64 x 0.64 mm |

PCB design

| | |
|--------------|------------------------------|
| Pad geometry | 1.2 x 2.1 mm 1.2 x 3.8 mm |
| Pin spacing | 2.54 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 |

DMC 0,5/ 4-G1-2,54 SMD R44 - PCB header



1845043

<https://www.phoenixcontact.com/us/products/1845043>

Contact holder in insert

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

Insertion and withdrawal forces

| | |
|-------------------------------------|------------------------|
| Specification | IEC 60512-13-2:2006-02 |
| Result | Test passed |
| No. of cycles | 100 |
| Insertion strength per pos. approx. | 2 N |
| Withdraw strength per pos. approx. | 1 N |

Electrical tests

Thermal test | Test group C

| | |
|----------------------------|-----------------------|
| Specification | IEC 60512-5-1:2002-02 |
| Tested number of positions | 16 |

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) | 32 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) | 1.3 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) | 160 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) | 1.6 mm |

Environmental and real-life conditions

Durability test

| | |
|--|-----------------------|
| Specification | IEC 60512-9-1:2010-03 |
| Impulse withstand voltage at sea level | 2.95 kV |
| Contact resistance R ₁ | 2.8 mΩ |
| Contact resistance R ₂ | 2.9 mΩ |

DMC 0,5/ 4-G1-2,54 SMD R44 - PCB header



1845043

<https://www.phoenixcontact.com/us/products/1845043>

| | |
|--|----------------|
| Contact resistance R_2 2nd level | 2.9 m Ω |
| Insertion/withdrawal cycles | 100 |
| Insulation resistance, neighboring positions | > 5 M Ω |

Climatic test

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

Vibration test

| | |
|------------------------|-----------------------------|
| Specification | IEC 60068-2-6:2007-12 |
| Frequency | 10 - 500 - 10 Hz |
| Sweep speed | 1 octave/min |
| Amplitude | 0.35 mm (10 Hz ... 60.1 Hz) |
| Acceleration | 5g (60.1 Hz ... 500 Hz) |
| Test duration per axis | 2 h |
| Test directions | X-, Y- and Z-axis |

Ambient conditions

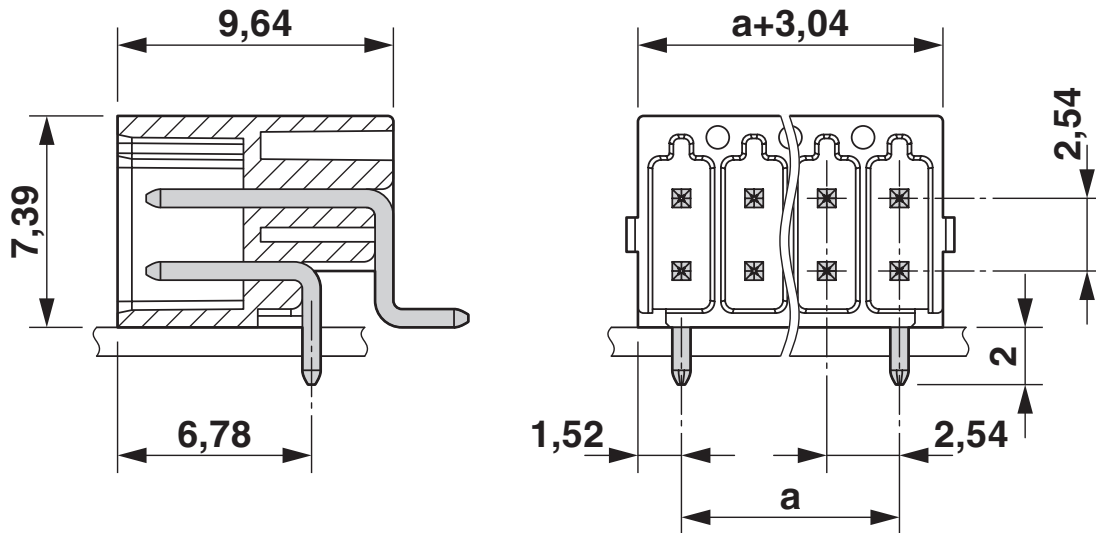
| | |
|---|---|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Relative humidity (storage/transport) | 30 % ... 70 % |
| Ambient temperature (assembly) | -5 °C ... 100 °C |
| Ambient temperature (operation) | -40 °C ... 105 °C (dependent on the derating curve) |

Packaging specifications

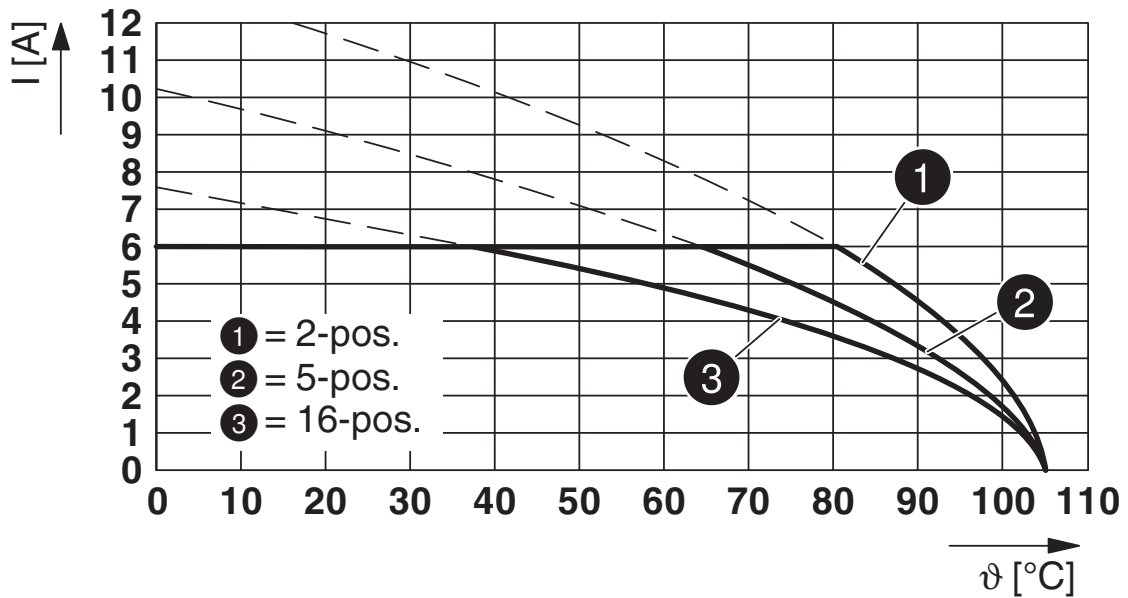
| | |
|-----------------------------|-----------------|
| Dimensional drawing | |
| Type of packaging | 44 mm wide tape |
| [W] tape width | 44 mm |
| [W2] coil overall dimension | ≤ 50.4 mm |
| [A] coil diameter | ≤ 330 mm |
| Outer packaging type | Transparent-Bag |

Drawings

Dimensional drawing



Diagram



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

DMC 0,5/ 4-G1-2,54 SMD R44 - PCB header



1845043

<https://www.phoenixcontact.com/us/products/1845043>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1845043>

|  cULus Recognized Approval ID: E60425-19920306 | | | | |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| B | 150 V | 6 A | - | - |
| C | 50 V | 6 A | - | - |

|  VDE report with production monitoring Approval ID: 40042389 | | | | |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | 160 V | 6 A | - | - |

DMC 0,5/ 4-G1-2,54 SMD R44 - PCB header



1845043

<https://www.phoenixcontact.com/us/products/1845043>

Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27460201 |
| ECLASS-15.0 | 27460201 |

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC002637 |
|-----------|----------|

UNSPSC

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

DMC 0,5/ 4-G1-2,54 SMD R44 - PCB header



1845043

<https://www.phoenixcontact.com/us/products/1845043>

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% |
|-------------------------------------|----------------------------|

EF3.1 Climate Change

| | |
|---------|---------------|
| CO2e kg | 0.262 kg CO2e |
|---------|---------------|

Phoenix Contact 2026 © - 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