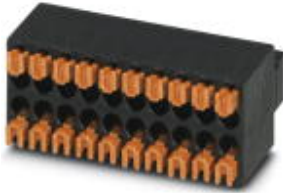


Printed-circuit board connector - DFMC 0,5/ 5-ST-2,54 - 1844604

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Plug, nominal current: 6 A, rated voltage (III/2): 160 V, number of positions: 5 with 10 contacts, pitch: 2.54 mm, connection method: spring connection, color: black, contact surface: gold



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

Your advantages

- ✓ Gold-plated contacts ensure transfer quality remains stable over the long term
- ✓ Time saving push-in connection, tools not required
- ✓ Defined contact force ensures that contact remains stable over the long term
- ✓ Intuitive use through colour coded actuation lever
- ✓ Optimized for tight installation situations: operation and conductor connection from one direction



Key Commercial Data

| | |
|--------------------------------------|---|
| Packing unit | 1 pc |
| Minimum order quantity | 100 pc |
| GTIN |  4 046356 964272 |
| GTIN | 4046356964272 |
| Weight per Piece (excluding packing) | 2.600 g |
| Custom tariff number | 85366990 |
| Country of origin | Poland |

Technical data

Item properties

| | |
|---------------------------|---------------------------|
| Brief article description | PCB connector |
| Plug-in system | MICRO COMBICON - DFMC 0,5 |
| Type of contact | Female connector |

Printed-circuit board connector - DFMC 0,5/ 5-ST-2,54 - 1844604

Technical data

Item properties

| | |
|-----------------------|---------------------------|
| Range of articles | DFMC 0,5/...-ST |
| Pitch | 2.54 mm |
| Number of positions | 5 |
| Connection method | Push-in spring connection |
| Locking | without |
| Number of levels | 2 |
| Number of connections | 10 |
| Number of potentials | 10 |

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 |

Connection capacity

| | |
|---|---|
| Connection method | Push-in spring connection |
| Conductor cross section solid | 0.14 mm ² ... 0.5 mm ² |
| Conductor cross section flexible | 0.14 mm ² ... 0.5 mm ² |
| Conductor cross section AWG / kcmil | 26 ... 20 |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.25 mm ² ... 0.34 mm ² |
| Conductor cross section, flexible, with ferrule, with plastic sleeve | 0.14 mm ² ... 0.25 mm ² |
| Cylindrical gauge a x b / diameter | - / 1.2 mm |
| Stripping length | 7 mm |

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 | Selective coating |
| Metal surface terminal point (top layer) | Tin (5 - 7 µm Sn) |
| Metal surface terminal point (middle layer) | Nickel (1 - 3 µm Ni) |
| Metal surface contact area (top layer) | Gold (0.25 Au) |
| Metal surface contact area (middle layer) | Nickel (2 - 3 µm Ni), |

Material data - housing

Printed-circuit board connector - DFMC 0,5/ 5-ST-2,54 - 1844604

Technical data

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 |

Material data – actuating element

| | |
|--|-----|
| Insulating material | LCP |
| CTI according to IEC 60112 | 175 |
| Flammability rating according to UL 94 | V0 |

Dimensions for the product

| | |
|-----------------------------|----------|
| Length [l] | 15.85 mm |
| Width [w] | 13.2 mm |
| Height [h] | 10.5 mm |
| Pitch | 2.54 mm |
| Height (without solder pin) | 10.5 mm |

Packaging information

| | |
|----------------------------|---------------------|
| Type of packaging | packed in cardboard |
| Pieces per package | 100 |
| Denomination packing units | Pcs. |
| Outer packaging type | Carton |

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) |

Termination and connection method

| | |
|--|---|
| Conductor connection test | The stripped-off ends of the largest conductor can be completely inserted in the opening of the terminal point without using excessive force. |
| Test result | Test passed |
| Test – repeated connection and release | IEC 60999-1:1999-11 |
| | Test passed |
| Test for conductor damage and slackening | IEC 60999-1:1999-11 |
| | Test passed |

Pull-out test

| | |
|---------------|---------------------|
| Pull-out test | IEC 60999-1:1999-11 |
| | Test passed |

Printed-circuit board connector - DFMC 0,5/ 5-ST-2,54 - 1844604

Technical data

Pull-out test

| | |
|--|--|
| Conductor cross section / conductor type / tensile force | 0.14 mm ² / solid / > 10 N |
| | 0.14 mm ² / flexible / > 10 N |
| | 0.5 mm ² / solid / > 20 N |
| | 0.5 mm ² / flexible / > 20 N |

Mechanical tests according to standard

| | |
|-------------------------------------|------------------------------------|
| Visual examination | Test passed IEC 60512-1-1:2002-02 |
| Dimensional test | Test passed IEC 60512-1-2:2002-02 |
| Resistance of marking | Test passed IEC 60068-2-70:1995-12 |
| Result | Test passed |
| Specification | IEC 60512-13-2:2006-02 |
| No. of cycles | 100 |
| Insertion strength per pos. approx. | 2 N |
| Withdraw strength per pos. approx. | 1 N |
| Polarization and coding | Test passed IEC 60512-13-5:2006-02 |
| Result | Test passed |
| Specification | IEC 60512-15-1:2008-05 |
| Test force per pos. | 20 N |

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 |

Electrical tests - Function

| | |
|---------------|---------------------|
| Specification | IEC 60999-1:1999-11 |
|---------------|---------------------|

Temperature cycles

| | |
|--------------------------------------|---------------------|
| Specification | IEC 60999-1:1999-11 |
| Test current (minimum cross section) | 4 A AC |
| Test current (maximum cross section) | 6 A AC |
| Temperature cycles | 192 |

Current carrying capacity / derating curves

Mechanical tests (A)

Printed-circuit board connector - DFMC 0,5/ 5-ST-2,54 - 1844604

Technical data

Mechanical tests (A)

| | |
|--|-------------|
| 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 |
| Insertion/withdrawal cycles | 100 |
| Contact resistance R ₂ 1st level | 2.9 mΩ |
| Contact resistance R ₂ 2nd level | 3.1 mΩ |
| Impulse withstand voltage at sea level | 2.95 kV |
| Power-frequency withstand voltage | 1.39 kV |
| Insulation resistance, neighboring positions | > 2 GΩ |

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 |

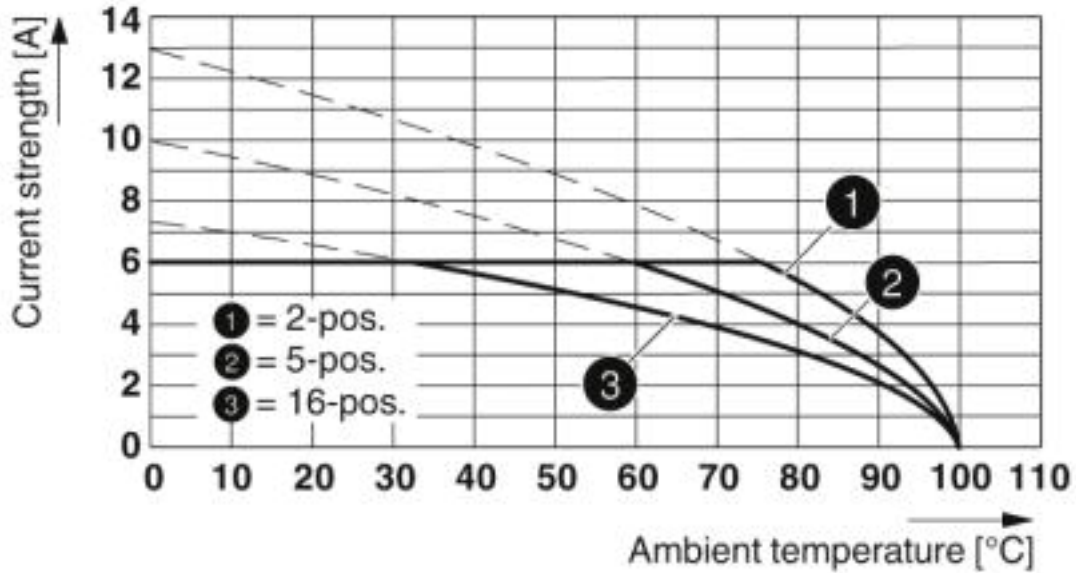
Environmental Product Compliance

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

Drawings

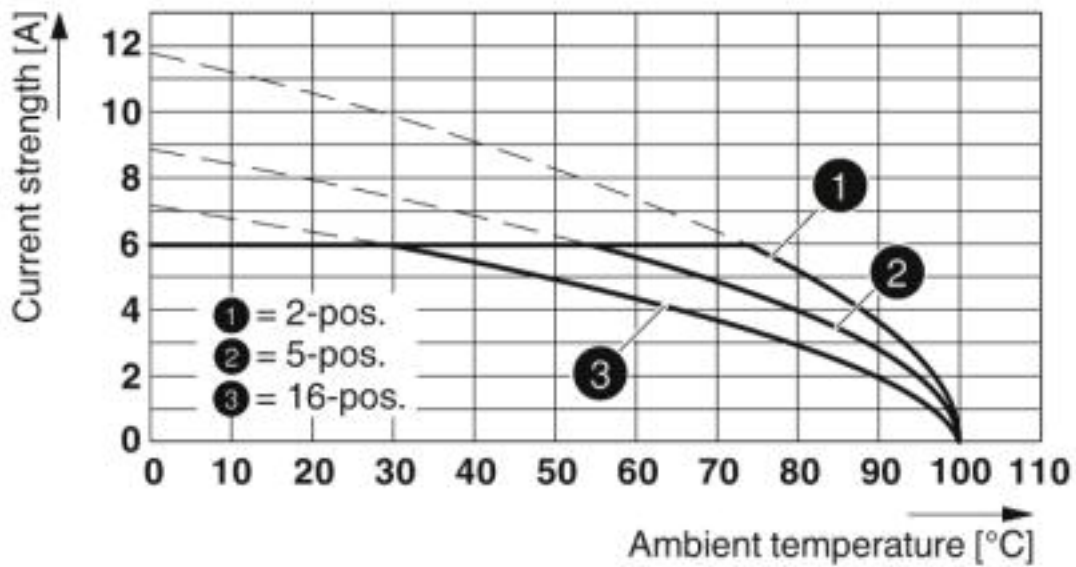
Printed-circuit board connector - DFMC 0,5/ 5-ST-2,54 - 1844604

Diagram



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

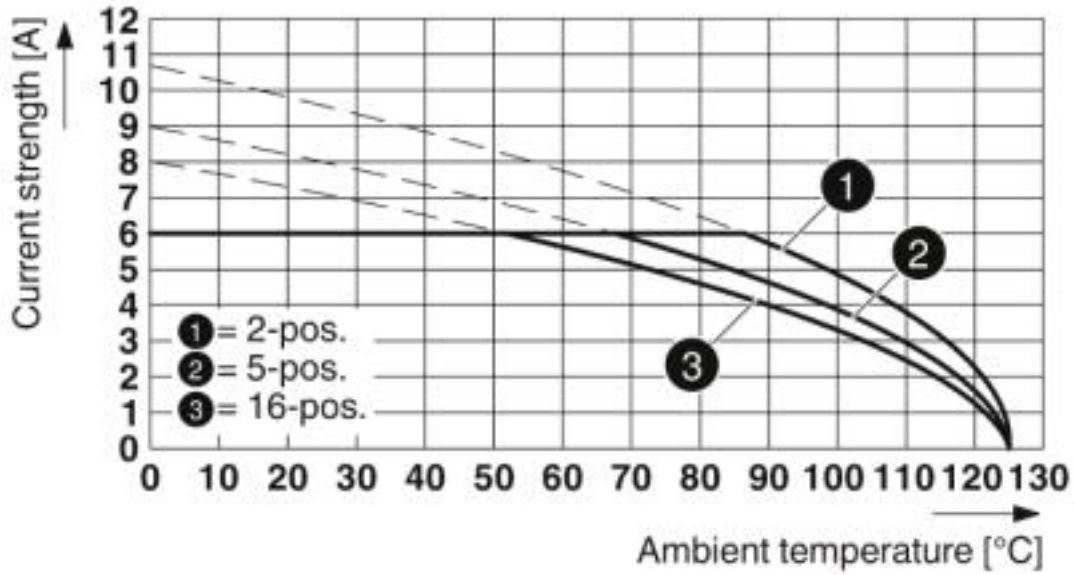
Diagram



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

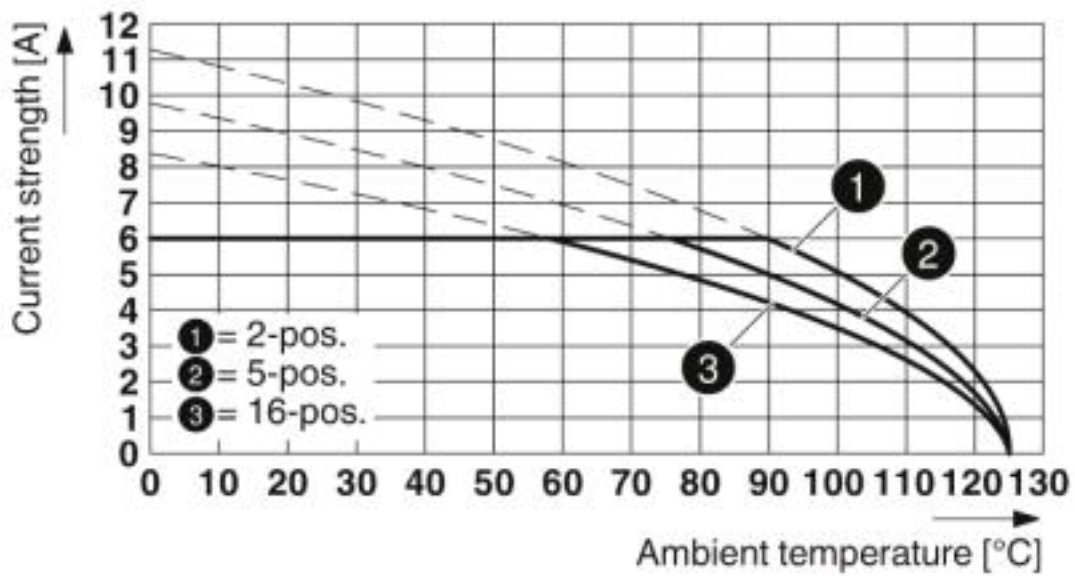
Printed-circuit board connector - DFMC 0,5/ 5-ST-2,54 - 1844604

Diagram



Type: DFMC 0,5/...-ST-2,54 with DMC 0,5/...-G1-2,54 P20THR R...

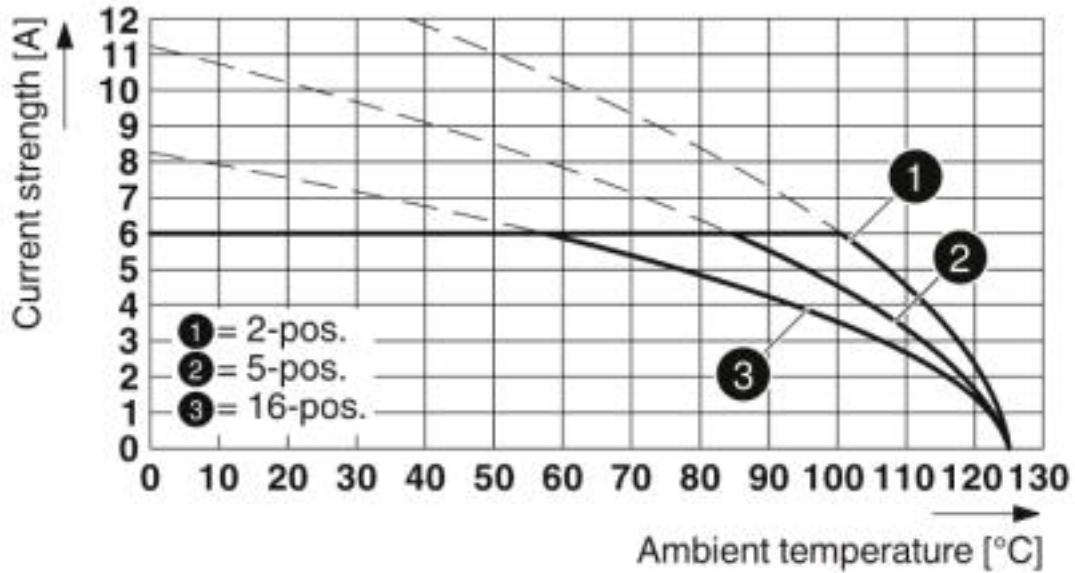
Diagram



Type: DFMC 0,5/...-ST-2,54 with DMCV 0,5/...-G1-2,54 P20THR R...

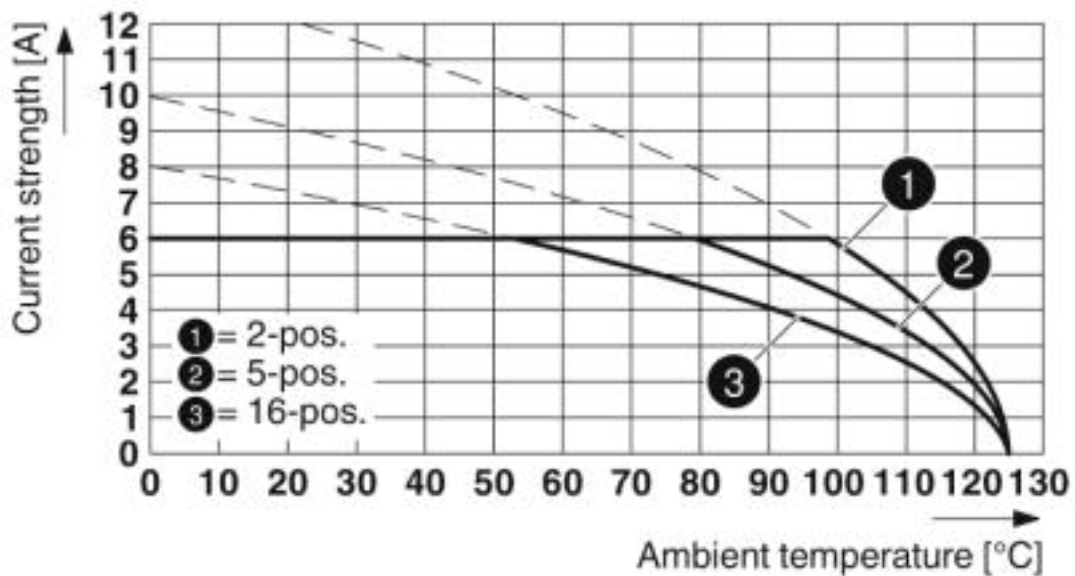
Printed-circuit board connector - DFMC 0,5/ 5-ST-2,54 - 1844604

Diagram



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

Diagram



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

Printed-circuit board connector - DFMC 0,5/ 5-ST-2,54 - 1844604

Classifications

eCl@ss

| | |
|------------|----------|
| 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 | 27440309 |
| eCl@ss 8.0 | 27440309 |
| eCl@ss 9.0 | 27440309 |

ETIM

| | |
|----------|----------|
| ETIM 4.0 | EC002643 |
| ETIM 5.0 | EC002643 |
| ETIM 6.0 | EC002638 |
| ETIM 7.0 | EC002638 |

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

Printed-circuit board connector - DFMC 0,5/ 5-ST-2,54 - 1844604

Approvals

| | | | |
|----------------------------|---------|---|-----------|
| IECEE CB Scheme | | http://www.iecee.org/ | DE1-55740 |
| Nominal voltage UN | 160 V | | |
| Nominal current IN | 6 A | | |
| mm ² /AWG/kcmil | 0.14-.5 | | |

| | | | |
|---|---------|---|----------|
| 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 | | |
| mm ² /AWG/kcmil | 0.14-.5 | | |

| | | | |
|-----|--|--|---------|
| EAC | | | B.01687 |
|-----|--|--|---------|

| | | | |
|----------------------------|------------|---|-----------------|
| cULus Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | E60425-19920306 |
| Nominal voltage UN | B 150 V | C 50 V | |
| Nominal current IN | 6 A | 6 A | |
| mm ² /AWG/kcmil | 26-20 | 26-20 | |

Accessories

Accessories

Cable end sleeve

Ferrule - A 0,25- 7 - 3202478



Ferrule, length: 7 mm, color: silver

Printed-circuit board connector - DFMC 0,5/ 5-ST-2,54 - 1844604

Accessories

Ferrule - A 0,34- 7 - 3009202



Ferrule, length: 7 mm, color: silver

Crimping tool

Crimping pliers - CRIMPFOX 6 - 1212034



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm² ... 6.0 mm², lateral entry, trapezoidal crimp

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

Screwdriver tools

Screwdriver - SZS 0,4X2,0 - 1205202



Micro screwdriver, bladed, size: 0.4 x 2.0 x 60 mm, 2-component grip, with non-slip grip and twist cap

Additional products

Printed-circuit board connector - DFMC 0,5/ 5-ST-2,54 - 1844604

Accessories

Printed-circuit board connector - DMC 0,5/ 5-G1-2,54 P20THR R44 - 1844756



PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of positions: 5, pitch: 2.54 mm, color: black, contact surface: Gold, mounting: THR soldering, solder pin [P]: 2 mm, Sample values available under SAMPLE DMC...

Printed-circuit board connector - DMCV 0,5/ 5-G1-2,54 P20THR R44 - 1844905



PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of positions: 5, pitch: 2.54 mm, color: black, contact surface: Gold, mounting: THR soldering, solder pin [P]: 2 mm, Sample values available under SAMPLE DMC...

Printed-circuit board connector - DMC 0,5/ 5-G1-2,54 SMD R44 - 1845056



PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of positions: 5, 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...

Printed-circuit board connector - DMCV 0,5/ 5-G1-2,54 SMD R44 - 1845205



PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of positions: 5, pitch: 2.54 mm, color: black, contact surface: Gold, mounting: SMD soldering, pin layout: Linear pad geometry, Sample values available under SAMPLE DMC...