

Feed-through header - MDSTB 2,5/14-G1 - 1762813

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PCB headers, nominal current: 10 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 14, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm, In combination with MVSTB or FKCV plug components, both an MVSTBW (or FKCVW) and an MVSTBR plug (or FKCVR) must be used. Combination with TMSTBP plug components is not possible!


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

Your advantages

- ✓ Maximum flexibility when it comes to device design – one header for connectors with different connection technologies
- ✓ Easy PCB replacement thanks to plug-in modules
- ✓ Well-known mounting principle allows worldwide use
- ✓ Conductor connection on several levels enables higher contact density



Key Commercial Data

| | |
|--------------|---|
| Packing unit | 50 pc |
| GTIN |  4 017918 031398 |
| GTIN | 4017918031398 |

Technical data

Item properties

| | |
|---------------------------|---------------------|
| Brief article description | Feed-through header |
| Plug-in system | CLASSIC COMBICON |
| Type of contact | Male connector |
| Range of articles | MDSTB 2,5/..-G1 |
| Pitch | 5 mm |
| Number of positions | 14 |
| Mounting type | Wave soldering |
| Pin layout | Linear pinning |
| Locking | without |
| Number of levels | 2 |
| Number of connections | 28 |

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Technical data

Item properties

| | |
|----------------------|----|
| Number of potentials | 28 |
|----------------------|----|

Electrical parameters

| | |
|-----------------------------|-------|
| Nominal current | 10 A |
| Nom. voltage | 320 V |
| Rated voltage | 250 V |
| Rated voltage (III/2) | 320 V |
| Rated voltage (II/2) | 630 V |
| Rated surge voltage (III/3) | 4 kV |
| Rated surge voltage (III/2) | 4 kV |
| Rated surge voltage (II/2) | 4 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 | Tin-plated |
| Metal surface contact area (top layer) | Tin (5 - 7 µm Sn) |
| Metal surface contact area (middle layer) | Nickel (2 - 3 µm Ni), |
| Metal surface soldering area (top layer) | Tin (5 - 7 µm Sn) |
| Metal surface soldering area (middle layer) | Nickel (2 - 3 µm Ni) |

Material data - housing

| | |
|---|--------------|
| Housing color | green (6021) |
| Insulating material | PA |
| Insulating material group | I |
| CTI according to IEC 60112 | 600 |
| Flammability rating according to UL 94 | V0 |
| Glow wire flammability index GWFI according to EN 60695-2-12 | 850 |
| Glow wire ignition temperature GWIT according to EN 60695-2-13 | 775 |
| Temperature for the ball pressure test according to EN 60695-10-2 | 125 °C |

Dimensions for the product

| | |
|-----------------------------|----------|
| Length [l] | 22 mm |
| Width [w] | 71.56 mm |
| Height [h] | 32.5 mm |
| Pitch | 5 mm |
| Height (without solder pin) | 29 mm |
| Solder pin [P] | 3.5 mm |
| Pin dimensions | 1 x 1 mm |

Dimensions for PCB design

| | |
|---------------|--------|
| Hole diameter | 1.4 mm |
|---------------|--------|

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Technical data

Packaging information

| | |
|----------------------------|---------------------|
| Type of packaging | packed in cardboard |
| Pieces per package | 50 |
| Denomination packing units | Pcs. |

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) | 3 mm |
| Minimum clearance - inhomogeneous field (III/2) | 3 mm |
| Minimum clearance - inhomogeneous field (II/2) | 3 mm |
| Minimum creepage distance value (III/3) | 3.2 mm |
| Minimum creepage distance value (III/2) | 3 mm |
| Minimum creepage distance value (II/2) | 3.2 mm |

Mechanical tests (A)

| | |
|--|-------------|
| Test specification | IEC 61984 |
| Insertion strength per pos. approx. | 8 N |
| Withdraw strength per pos. approx. | 6 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 | 2.2 mΩ |
| Insertion/withdrawal cycles | 25 |
| Contact resistance R ₂ | 2.3 mΩ |
| Impulse withstand voltage at sea level | 4.8 kV |
| Power-frequency withstand voltage | 2.21 kV |
| Insulation resistance, neighboring positions | > 0.2 TΩ |

Thermal tests (C)

| | |
|---|-----------------------|
| Specification | IEC 60512-5-1:2002-02 |
| Number of positions | 20 |
| Conductor cross section | 2.5 mm ² |
| Test current | 10 A |
| Upper limiting temperature requirements <100 °C | Test passed |

Climatic tests (D)

| | |
|---------------|------------------|
| Specification | ISO 6988:1985-02 |
|---------------|------------------|

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Technical data

Climatic tests (D)

| | |
|--|---|
| Cold stress | -40 °C/2 h |
| Thermal stress | 100 °C/168 h |
| Corrosive stress | 0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle |
| Impulse withstand voltage at sea level | 4.8 kV |
| Power-frequency withstand voltage | 2.21 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 - 150 - 10 Hz |
| Sweep speed | 1 octave/min |
| Amplitude | 0.35 mm (10 - 60.1 Hz) |
| Acceleration | 5 g (60.1 - 150 Hz) |
| Test duration per axis | 2.5 h |

Standards and Regulations

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

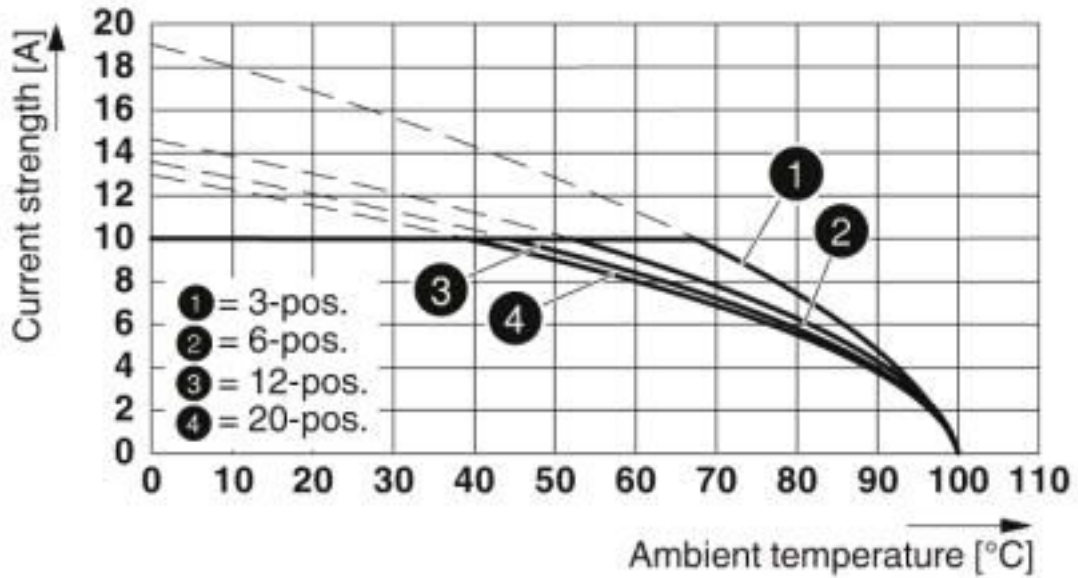
Environmental Product Compliance

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

Drawings

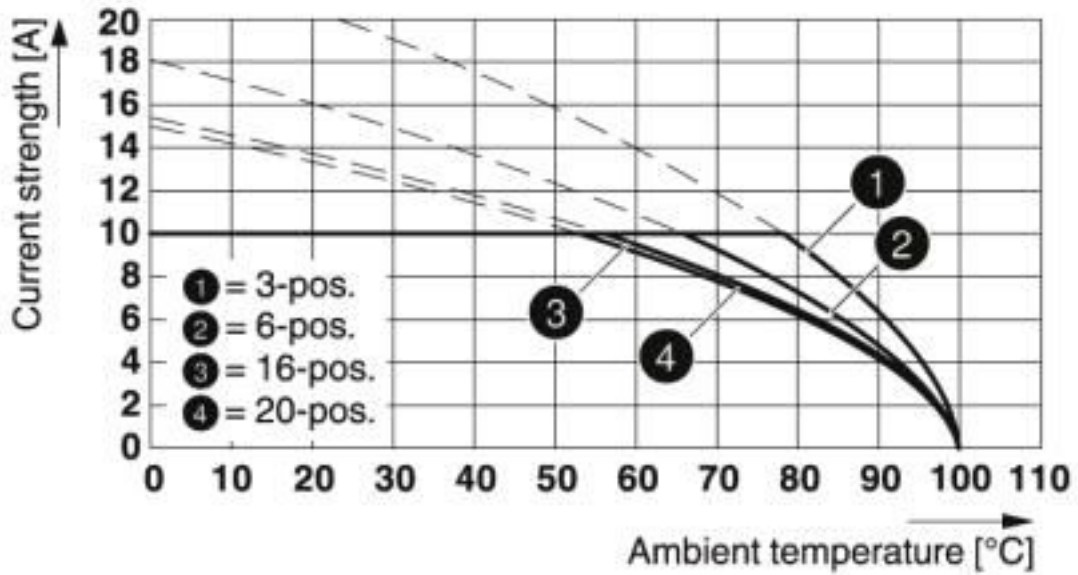
Feed-through header - MDSTB 2,5/14-G1 - 1762813

Diagram



Type: MVSTB(R/W) 2,5/...-ST with MDSTB 2,5/...-G1

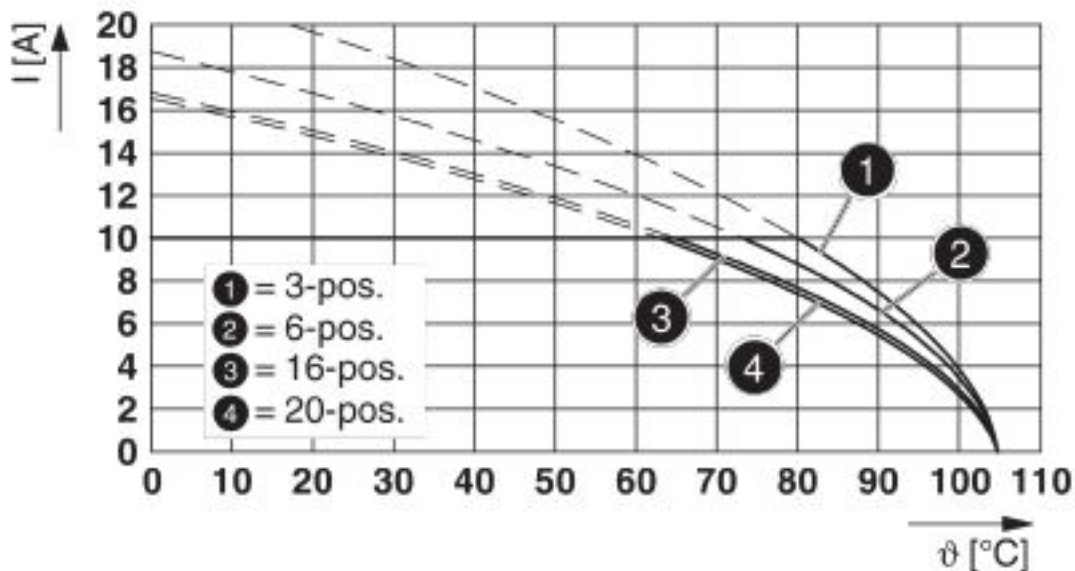
Diagram



Type: FRONT-MSTB 2,5/...-ST with MDSTB 2,5/...-G1

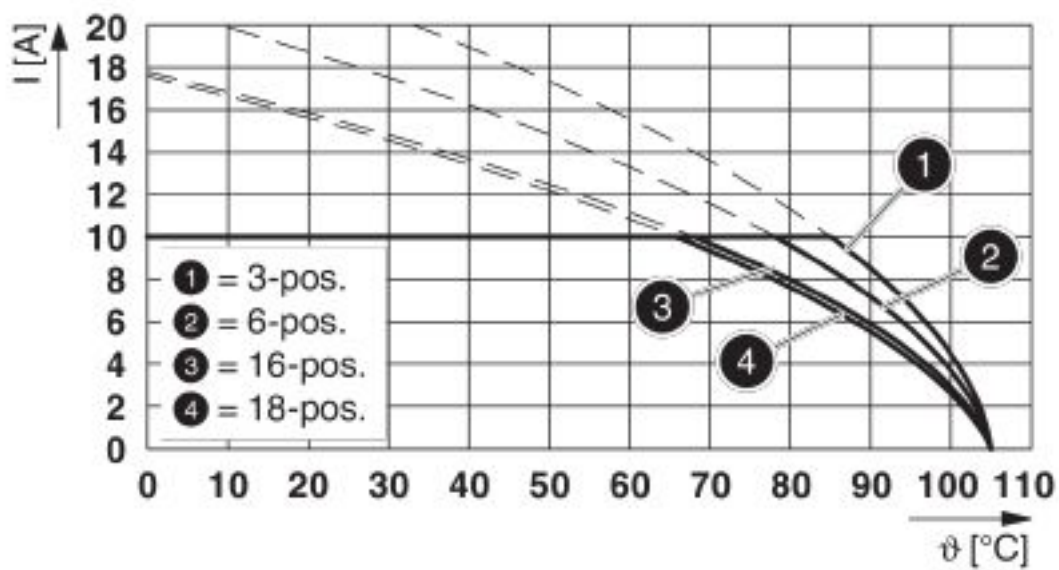
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Diagram



Type: FKCT 2,5/...-ST with MDSTB 2,5/...-G1

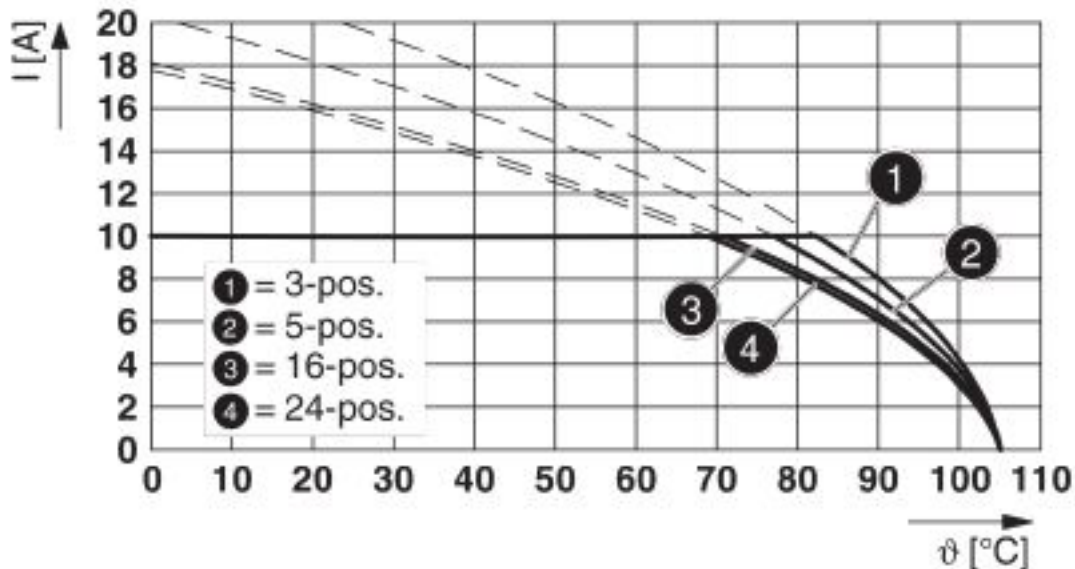
Diagram



Type: FKCN 2,5/...-ST with MDSTB 2,5/...-G1

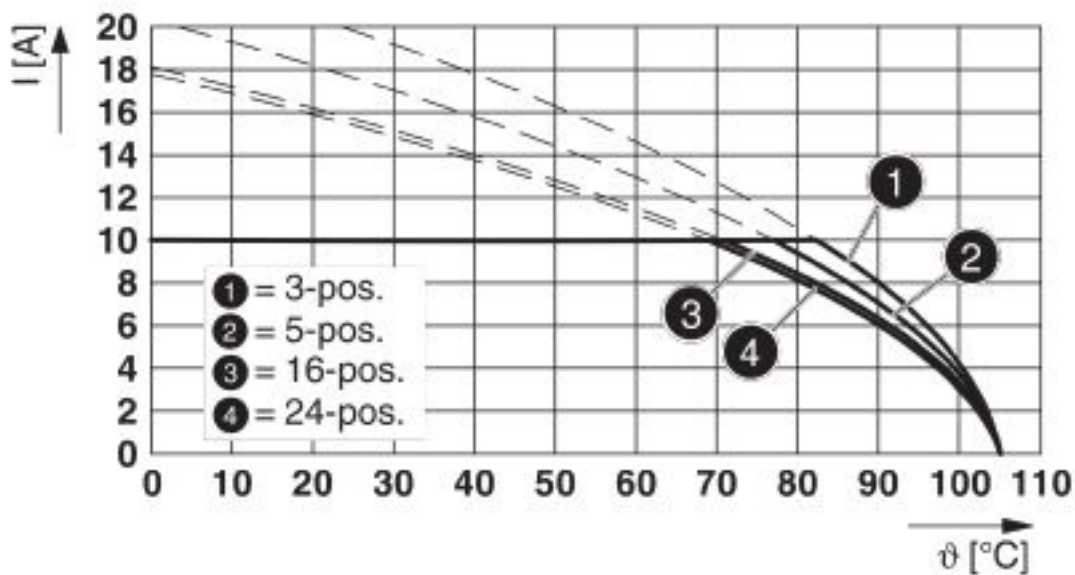
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Diagram



Type: FKCVR 2,5/...-ST with MDSTB 2,5/...-G1

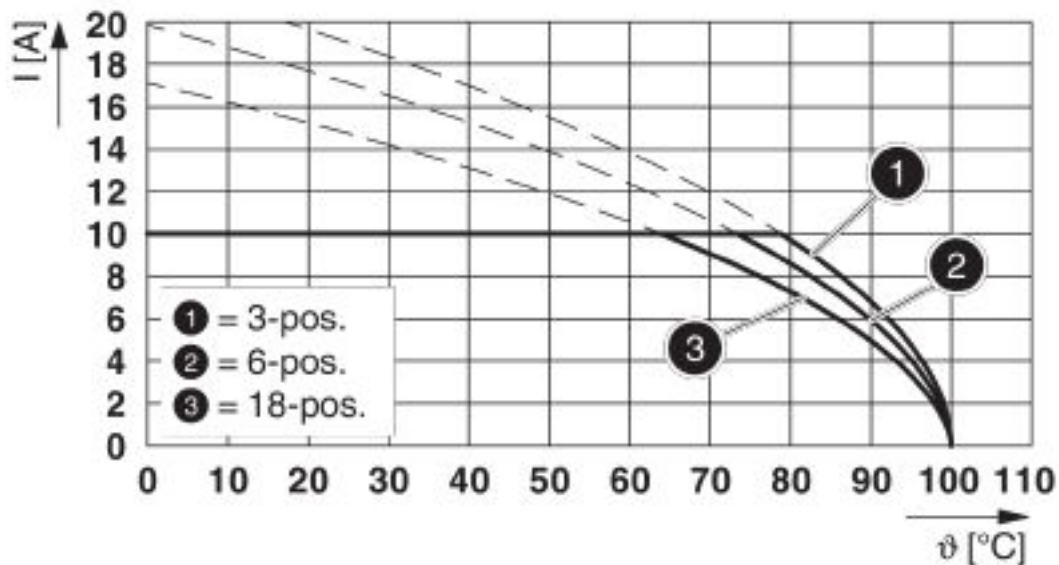
Diagram



Type: FKCVR 2,5/...-ST with MDSTB 2,5/...-G1

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Diagram



Type: FKCS 2,5/...-ST with MDSTB 2,5/...-G1

Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27440402 |
| 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 8.0 | 27440402 |
| eCl@ss 9.0 | 27440402 |

ETIM

| | |
|----------|----------|
| ETIM 3.0 | EC001121 |
| ETIM 4.0 | EC002637 |
| ETIM 5.0 | EC002637 |
| ETIM 6.0 | EC002637 |
| ETIM 7.0 | EC002637 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 30211810 |
| UNSPSC 7.0901 | 39121409 |
| UNSPSC 11 | 39121409 |
| UNSPSC 12.01 | 39121409 |

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Classifications

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 / EAC / cULus Recognized / VDE Zeichengenehmigung

Ex Approvals

Approval details

| | | | |
|--------------------|--|---|----------------|
| IECEE CB Scheme | | http://www.iecee.org/ | DE1-60988-B1B2 |
| Nominal voltage UN | | 250 V | |
| Nominal current IN | | 10 A | |

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

| | | | |
|--------------------|-------|---|-----------------|
| cULus Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | E60425-19931011 |
| | B | D | |
| Nominal voltage UN | 300 V | 300 V | |
| Nominal current IN | 15 A | 10 A | |

| | | | |
|------------------------|--|---|----------|
| VDE Zeichengenehmigung | | http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx | 40050648 |
| Nominal voltage UN | | 250 V | |

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Approvals

| | |
|--------------------|------|
| Nominal current IN | 10 A |
|--------------------|------|

Accessories

Accessories

Coding element

Coding section - CR-MSTB - 1734401



Coding section, inserted into the recess in the header or the inverted plug, red insulating material

Filler plug

Accessories - MSTB-BL - 1755477



Keying cap, for forming sections, plugs onto header pin, green insulating material

Labeled terminal marker

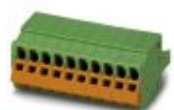
Marker card - SK 5/3,8:FORTL.ZAHLEN - 0804183



Marker card, Card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... (99)100, mounting type: adhesive, for terminal block width: 5 mm, lettering field size: 5 x 3.8 mm

Additional products

Plug - QC 1,5/14-ST - 1718083



PCB connector, nominal current: 12 A, rated voltage (III/2): 630 V, nominal cross section: 1.5 mm², number of positions: 14, pitch: 5 mm, connection method: Displacement connection, color: green, contact surface: Tin

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Accessories

Printed-circuit board connector - MSTB 2,5/14-ST - 1754685



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 14, pitch: 5 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin

Printed-circuit board connector - MSTB 2,5/14-STZ - 1759376



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 14, pitch: 5 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin

Printed-circuit board connector - MSTBP 2,5/14-ST - 1765894



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 14, pitch: 5 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin

Printed-circuit board connector - SMSTB 2,5/14-ST - 1768875



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 14, pitch: 5 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin

Printed-circuit board connector - FRONT-MSTB 2,5/14-ST - 1779534



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 14, pitch: 5 mm, connection method: Front screw connection, color: green, contact surface: Tin

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Accessories

Printed-circuit board connector - MVSTBR 2,5/14-ST - 1792139



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 14, pitch: 5 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin

Printed-circuit board connector - MVSTBW 2,5/14-ST - 1792647



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 14, pitch: 5 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin

Printed-circuit board connector - FKCVR 2,5/14-ST - 1909838



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 14, pitch: 5 mm, connection method: Push-in spring connection, color: green, contact surface: Tin

Printed-circuit board connector - FKCVW 2,5/14-ST - 1910157



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 14, pitch: 5 mm, connection method: Push-in spring connection, color: green, contact surface: Tin

Printed-circuit board connector - FKC 2,5/14-ST - 1910474



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 14, pitch: 5 mm, connection method: Push-in spring connection, color: green, contact surface: Tin

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Accessories

Printed-circuit board connector - FKCS 2,5/14-ST - 1974850

PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 14, pitch: 5 mm, connection method: Push-in spring connection, color: green, contact surface: Tin



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