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connection with tension sleeve, color: green, contact surface: Tin



PCB connector, nominal current: 12 A, number of positions: 2, pitch: 5.08 mm, connection method: Screw

The figure shows a 10-position version of the product

#### Your advantages

- Allows connection of two conductors











## **Key Commercial Data**

| Packing unit                         | 100 pc          |
|--------------------------------------|-----------------|
| Minimum order quantity               | 100 pc          |
| GTIN                                 | 4 017918 045180 |
| GTIN                                 | 4017918045180   |
| Weight per Piece (excluding packing) | 4.300 g         |
| Custom tariff number                 | 85366990        |
| Country of origin                    | Germany         |

#### Technical data

#### Item properties

| Proposition and the second sec |                                      |
|--|--------------------------------------|
| Brief article description  | Printed-circuit board connector      |
| Plug-in system   | CLASSIC COMBICON                     |
| Type of contact  | Female connector                     |
| Range of articles  | MVSTBW 2,5/ST                        |
| Pitch  | 5.08 mm                              |
| Number of positions  | 2                                    |
| Connection method  | Screw connection with tension sleeve |
| Drive form screw head  | Slotted (L)                          |



## Technical data

#### Item properties

| Screw thread          | M3      |
|-----------------------|---------|
| Locking               | without |
| Number of levels      | 1       |
| Number of connections | 2       |
| Number of potentials  | 2       |

#### Connection capacity

| Conductor cross section solid  | 0.2 mm² 2.5 mm²  |
|--|------------------|
| Conductor cross section flexible   | 0.2 mm² 2.5 mm²  |
| Conductor cross section AWG / kcmil  | 24 12            |
| Conductor cross section flexible, with ferrule without plastic sleeve                  | 0.25 mm² 2.5 mm² |
| Conductor cross section, flexible, with ferrule, with plastic sleeve                   | 0.25 mm² 2.5 mm² |
| 2 conductors with same cross section, solid  | 0.2 mm² 1 mm²    |
| 2 conductors with same cross section, flexible   | 0.2 mm² 1.5 mm²  |
| 2 conductors with same cross section, stranded, ferrules without plastic sleeve        | 0.25 mm² 1 mm²   |
| 2 conductors with same cross section, stranded, with TWIN ferrules with plastic sleeve | 0.5 mm² 1.5 mm²  |
| Stripping length   | 7 mm             |
| Torque   | 0.5 Nm 0.6 Nm    |

#### Material data - contact

| Note                                     | WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/<br>JEDEC JESD 201 |
|--|--|
| Contact material                         | Cu alloy   |
| Surface characteristics                  | hot-dip tin-plated   |
| Metal surface terminal point (top layer) | Tin (4 - 8 µm Sn)  |
| Metal surface contact area (top layer)   | Tin (4 - 8 µm Sn)  |

## Material data - housing

| 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 [1]                  | 12.5 mm  |
|-----------------------------|----------|
| Width [ w ]                 | 10.16 mm |
| Height [ h ]                | 26 mm    |
| Pitch                       | 5.08 mm  |
| Height (without solder pin) | 26 mm    |



## Technical data

## Dimensions for the product

| Dimension a 5.08 mm |
|---------------------|
|---------------------|

## Packaging information

| Type of packaging          | packed in cardboard |
|----------------------------|---------------------|
| Pieces per package         | 100                 |
| 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) |

#### Termination and connection method

| 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         |

## Mechanical tests according to standard

| Test specification                  | IEC 61984                          |
|-------------------------------------|------------------------------------|
| 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                       | 25                                 |
| Insertion strength per pos. approx. | 8 N                                |
| Withdraw strength per pos. approx.  | 6 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.                 | 33 N                               |

## Air clearances and creepage distances

| Rated insulation voltage (III/3)                | 250 V |
|---|-------|
| Rated insulation voltage (III/2)                | 320 V |
| Rated insulation 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  |
| Minimum clearance - inhomogeneous field (III/3) | 3 mm  |
| Minimum clearance - inhomogeneous field (III/2) | 3 mm  |



## Technical data

## Air clearances and creepage distances

| Minimum clearance - inhomogeneous field (II/2) | 3 mm   |
|--|--------|
| Minimum creepage distance value (III/3)        | 4 mm   |
| Minimum creepage distance value (III/2)        | 3 mm   |
| Minimum creepage distance value (II/2)         | 3.2 mm |

#### Current carrying capacity / derating curves

| Specification     | IEC 61984 |
|-------------------|-----------|
| The second second |           |

## 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 <sub>1</sub>            | 2.6 mΩ                |
| Insertion/withdrawal cycles                  | 25                    |
| Contact resistance R <sub>2</sub>            | 2.6 mΩ                |
| Impulse withstand voltage at sea level       | 4.8 kV                |
| Power-frequency withstand voltage            | 2.21 kV               |
| Insulation resistance, neighboring positions | > 0.2 TΩ              |

## Climatic tests (D)

| Specification                          | ISO 6988:1985-02                                      |
|--|---|
| Cold stress                            | -40 °C/2 h  |
| Thermal stress                         | 100 °C/168 h  |
| Corrosive stress                       | $0.2~\mathrm{dm^3SO_2}$ 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)

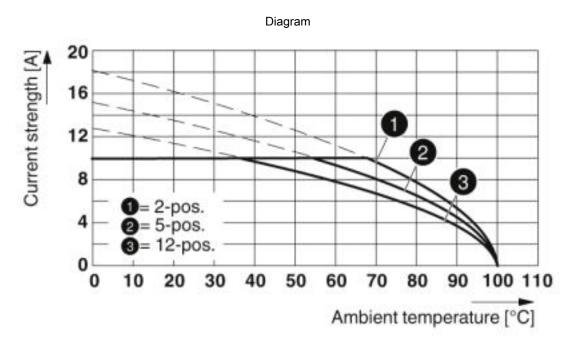
| Specification                         | IEC 61984:2008-10                   |
|---------------------------------------|-------------------------------------|
| Result, degree of protection, IP code | Finger safety with IP20 test finger |

## **Environmental Product Compliance**

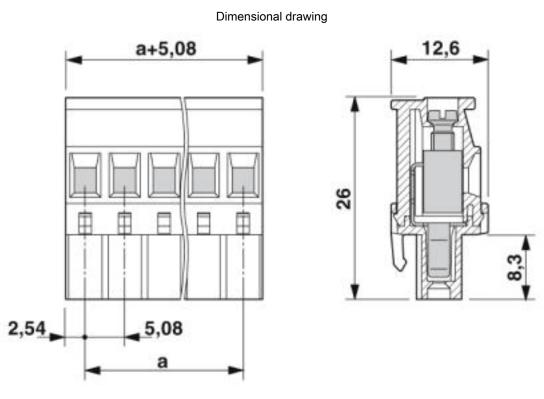
|            | Lead 7439-92-1  |
|------------|---|
| China RoHS | Environmentally Friendly Use Period = 50  |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

## Drawings





Type: MVSTBW 2,5/..-ST-5,08 with MDSTB 2,5/..-G-5,08



## Classifications

eCl@ss

| eCl@ss 4.0 | 27260700 |
|------------|----------|



## Classifications

## eCl@ss

| 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 3.0 | EC001121 |
|----------|----------|
| ETIM 4.0 | EC002638 |
| ETIM 5.0 | EC002638 |
| ETIM 6.0 | EC002638 |
| ETIM 7.0 | EC002638 |

#### **UNSPSC**

| UNSPSC 6.01   | 30211810 |
|---------------|----------|
| UNSPSC 7.0901 | 39121409 |
| UNSPSC 11     | 39121409 |
| UNSPSC 12.01  | 39121409 |
| UNSPSC 13.2   | 39121409 |

## Approvals

#### Approvals

Approvals

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

Ex Approvals

## Approval details

| CSA                | <b>(P</b> | http://www.csagroup.org/services-industries/product-listing/ LR13631-258595 |       |
|--------------------|-----------|---|-------|
|                    |           | В   | D     |
| Nominal voltage UN |           | 300 V   | 300 V |
| Nominal current IN |           | 10 A  | 10 A  |
| mm²/AWG/kcmil      |           | 28-12   | 28-12 |



## Approvals

| IECEE CB Scheme    | CB<br>scheme | http://www.iecee.org/ | DE1-60988-B1B2 |
|--------------------|--------------|-----------------------|----------------|
|                    |              |                       |                |
| Nominal voltage UN |              | 250 V                 |                |
| Nominal current IN |              | 12 A                  |                |
| mm²/AWG/kcmil      |              | 0.2-2.5               |                |

| VDE Gutachten mit<br>Fertigungsüberwachung | VDE | http://www2.vde.com/de/Institut/Online-Service/ VDE-gepruefteProdukte/Seiten/Online-Suche.aspx 400 |         | 40004701 |
|--|-----|--|---------|----------|
|  |     |  |         |          |
| Nominal voltage UN                         |     |  | 250 V   |          |
| Nominal current IN                         |     |  | 12 A    |          |
| mm²/AWG/kcmil                              |     |  | 0.2-2.5 |          |

| EAC | EAC | B.0174 | 42 |
|-----|-----|--------|----|
|-----|-----|--------|----|

| cULus Recognized   | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E60425-19931011 |       |
|--------------------|---|-------|
|                    | В   | D     |
| Nominal voltage UN | 300 V   | 300 V |
| Nominal current IN | 15 A  | 10 A  |
| mm²/AWG/kcmil      | 30-12   | 30-12 |

#### Accessories

Accessories

Coding element

Coding profile - CP-MSTB - 1734634

\*

Coding profile, is inserted into the slot on the plug or inverted header, red insulating material

Labeled terminal marker



#### Accessories

Marker card - SK 5,08/3,8:FORTL.ZAHLEN - 0804293



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: 5.08 mm, lettering field size: 5.08 x 3.8 mm

#### Marker pen

Marker pen - B-STIFT - 1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

#### Screwdriver tools

Screwdriver - SZS 0,6X3,5 - 1205053



Actuation tool, for ST terminal blocks, insulated, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

#### Terminal marking

Marker card - SK 5,08/3,8:UNBEDRUCKT - 0805412



Marker card, Card, white, unlabeled, can be labeled with: Marker pen, mounting type: adhesive, for terminal block width: 5.08 mm, lettering field size: 5.08 x 3.8 mm

### Additional products

Feed-through header - MSTBW 2,5/ 2-G-5,08 - 1735882



PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5.08 mm, color: green, contact surface: Tin, mounting: Wave soldering



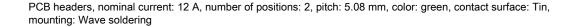
#### Accessories

Printed-circuit board connector - MSTBVA 2,5/ 2-G-5,08 - 1755736



PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5.08 mm, color: green, contact surface: Tin, mounting: Wave soldering

Printed-circuit board connector - MSTBA 2,5/ 2-G-5,08 - 1757242



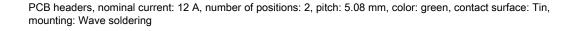


Feed-through header - MSTBV 2,5/ 2-G-5,08 - 1758018



PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5.08 mm, color: green, contact surface: Tin, mounting: Wave soldering

Feed-through header - MSTB 2,5/ 2-G-5,08 - 1759017





Feed-through header - MDSTB 2,5/ 2-G-5,08 - 1762062



PCB headers, nominal current: 10 A, number of positions: 2, pitch: 5.08 mm, color: green, contact surface: Tin, mounting: Wave soldering, Can be aligned! Mounting flange: Order no. 1736771, 1736768. In combination with MVSTB or FKCV plugs, both an MVSTBW (or FKCVW) and an MVSTBR plug (or FKCVR) must be used. Combination with TMSTBP plugs is not possible!



#### Accessories

Printed-circuit board connector - MDSTBV 2,5/ 2-G-5,08 - 1763074



PCB headers, nominal current: 10 A, number of positions: 2, pitch: 5.08 mm, color: green, contact surface: Tin, mounting: Wave soldering, Can be aligned! Mounting flange: Order No. 1836477, 1836480. 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!

Feed-through header - SMSTBA 2,5/ 2-G-5,08 - 1767371



PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5.08 mm, color: green, contact surface: Tin, mounting: Wave soldering

Printed-circuit board connector - SMSTB 2,5/ 2-G-5,08 - 1769463



PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5.08 mm, color: green, contact surface: Tin, mounting: Wave soldering

Feed-through header - MSTBA 2,5/ 2-G-5,08-LA - 1770944



PCB headers, number of positions: 2, pitch: 5.08 mm, color: green

Feed-through header - MDSTBW 2,5/ 2-G-5,08 - 1802430



PCB headers, nominal current: 10 A, number of positions: 2, pitch: 5.08 mm, color: green, contact surface: Tin, mounting: Wave soldering, The article can be aligned to create different nos. of positions! 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!



#### Accessories

Feed-through header - MDSTBA 2,5/ 2-G-5,08 - 1842063



PCB headers, nominal current: 10 A, number of positions: 2, pitch: 5.08 mm, color: green, contact surface: Tin, mounting: Wave soldering, The article can be aligned to create different nos. of positions! 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!

Feed-through header - MDSTBVA 2,5/ 2-G-5,08 - 1845332



PCB headers, nominal current: 10 A, number of positions: 2, pitch: 5.08 mm, color: green, contact surface: Tin, mounting: Wave soldering, The article can be aligned to create different nos. of positions! 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!

Feed-through header - EMSTBVA 2,5/ 2-G-5,08 - 1859519



PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5.08 mm, color: green, contact surface: Tin, mounting: Press-in technology

Feed-through header - MDSTBA 2,5/ 2-GL-5,08 - 1877601



PCB headers, nominal current: 10 A, number of positions: 2, pitch: 5.08 mm, color: green, contact surface: Tin, mounting: Wave soldering, The article can be aligned to create different nos. of positions! 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!

Feed-through header - MDSTBA 2,5/ 2-GR-5,08 - 1877614



PCB headers, nominal current: 10 A, number of positions: 2, pitch: 5.08 mm, color: green, contact surface: Tin, mounting: Wave soldering, The article can be aligned to create different nos. of positions! 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!



#### Accessories

Feed-through header - MDSTBVA 2,5/ 2-GL-5,08 - 1877627



PCB headers, nominal current: 10 A, number of positions: 2, pitch: 5.08 mm, color: green, contact surface: Tin, mounting: Wave soldering, The article can be aligned to create different nos. of positions! 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!

Feed-through header - MDSTBVA 2,5/ 2-GR-5,08 - 1877630



PCB headers, nominal current: 10 A, number of positions: 2, pitch: 5.08 mm, color: green, contact surface: Tin, mounting: Wave soldering, The article can be aligned to create different nos. of positions! 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!

Printed-circuit board connector - DFK-MSTBA 2,5/ 2-G-5,08 - 1898839



Feed-through header, nominal current: 12 A, number of positions: 2, pitch: 5.08 mm, color: green, contact surface: Tin, mounting: Wave soldering

Printed-circuit board connector - DFK-MSTBVA 2,5/ 2-G-5,08 - 1899139



Feed-through header, nominal current: 12 A, number of positions: 2, pitch: 5.08 mm, color: green, contact surface: Tin, mounting: Wave soldering

Printed-circuit board connector - MSTBA 2,5/ 2-G-5,08 THT-R32 - 1937237



PCB headers, number of positions: 2, pitch: 5.08 mm, color: black, User information and design recommendations for through hole reflow technology can be found under "Downloads"



#### Accessories

Printed-circuit board connector - MSTBVA 2,5/ 2-G-5,08 THT-R56 - 1940415



PCB headers, number of positions: 2, pitch: 5.08 mm, color: black, User information and design recommendations for through hole reflow technology can be found under "Downloads"

Printed-circuit board connector - CC 2,5/2-G-5,08 P26THR - 1954388

PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5.08 mm, color: black, contact surface: Tin, mounting: THR soldering, User information and design recommendations for through hole reflow technology can be found under "Downloads"

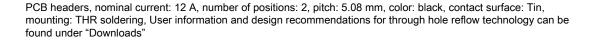


Printed-circuit board connector - CC 2,5/2-G-5,08 P26THRR32 - 1954582



PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5.08 mm, color: black, contact surface: Tin, mounting: THR soldering, User information and design recommendations for through hole reflow technology can be found under "Downloads"

Printed-circuit board connector - CCA 2,5/ 2-G-5,08 P26THR - 1954919





Printed-circuit board connector - CCA 2,5/ 2-G-5,08 P26THRR32 - 1955031

PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5.08 mm, color: black, contact surface: Tin, mounting: THR soldering, User information and design recommendations for through hole reflow technology can be found under "Downloads"





#### Accessories

Printed-circuit board connector - CCV 2,5/ 2-G-5,08 P26THR - 1955387



PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5.08 mm, color: black, contact surface: Tin, mounting: THR soldering, User information and design recommendations for through hole reflow technology can be found under "Downloads"

Printed-circuit board connector - CCV 2,5/ 2-G-5,08 P26THRR32 - 1955523



PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5.08 mm, color: black, contact surface: Tin, mounting: THR soldering, User information and design recommendations for through hole reflow technology can be found under "Downloads"

Printed-circuit board connector - CCVA 2,5/ 2-G-5,08 P26THR - 1955853



PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5.08 mm, color: black, contact surface: Tin, mounting: THR soldering, User information and design recommendations for through hole reflow technology can be found under "Downloads"

Printed-circuit board connector - CCVA 2,5/ 2-G-5,08 P26THRR32 - 1955963



PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5.08 mm, color: black, contact surface: Tin, mounting: THR soldering, User information and design recommendations for through hole reflow technology can be found under "Downloads"

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