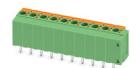


1709470

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Printed circuit board terminal, nominal current: 15 A, rated voltage (III/2): 400 V, nominal cross section: 1.5 mm², number of potentials: 8, number of rows: 1, number of positions per row: 8, product range: FFKDS(A)/V1, pitch: 5.08 mm, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 90 °, color: multicolored, Pin layout: Linear pinning, Solder pin [P]: 3.4 mm, number of solder pins per potential: 2, type of packaging: packed in cardboard. The article can be aligned to create different nos. of positions!

Your advantages

- · Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- · Intuitive operation due to color-coded actuating push button
- · Operation and conductor connection from one direction enable integration into front of device
- Two solder pins reduce the mechanical strain on the soldering spots
- The latching on the side enables various numbers of positions to be combined
- · Vertical connection enables multi-row arrangement on the PCB

Commercial data

| Item number | 1709470 |
|--------------------------------------|--------------------------------|
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Note | Made to order (non-returnable) |
| Sales key | NULL |
| Product key | AALBAK |
| GTIN | 4055626129570 |
| Weight per piece (including packing) | 8.98 g |
| Weight per piece (excluding packing) | 8.073 g |
| Customs tariff number | 85369010 |
| Country of origin | GR |



1709470

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Technical data

Product properties

| Product type | Printed circuit board terminal |
|---------------------------|--------------------------------|
| Product family | FFKDS(A)/V1 |
| Product line | COMBICON Terminals S |
| Number of positions | 8 |
| Pitch | 5.08 mm |
| Number of connections | 8 |
| Number of rows | 1 |
| Number of potentials | 8 |
| Pin layout | Linear pinning |
| Solder pins per potential | 2 |

Electrical properties

Properties

| Nominal current I _N | 15 A |
|--------------------------------|-------|
| Nominal voltage U _N | 400 V |
| Rated voltage (III/3) | 250 V |
| Rated surge voltage (III/3) | 4 kV |
| Rated voltage (III/2) | 400 V |
| Rated surge voltage (III/2) | 4 kV |
| Rated voltage (II/2) | 630 V |
| Rated surge voltage (II/2) | 4 kV |

Connection data

Connection technology

| Туре | PC terminal block can be aligned |
|-----------------------|----------------------------------|
| Nominal cross section | 1.5 mm ² |

Conductor connection

| Connection method | Push-in spring connection |
|---|--|
| Conductor cross-section rigid | 0.2 mm ² 1.5 mm ² |
| Conductor cross-section flexible | 0.2 mm ² 1.5 mm ² |
| Conductor cross-section AWG | 24 16 |
| Conductor cross-section flexible, with ferrule without plastic sleeve | 0.25 mm ² 1.5 mm ² |
| Conductor cross-section, flexible, with ferrule, with plastic sleeve | 0.25 mm² 1.5 mm² |
| Stripping length | 10 mm |

Mounting

| Mounting type | Wave soldering |
|---------------|----------------|
| Pin layout | Linear pinning |



1709470

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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 | Tin-plated |
| Metal surface terminal point (top layer) | Tin (5 - 7 μm Sn) |
| Metal surface terminal point (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

| Color (Housing) | multicolored () |
|---|-----------------|
| 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 |

Material data - actuating element

| Color (Actuating element) | orange (2003) |
|---|---------------|
| Insulating material | PA |
| Insulating material group | 1 |
| 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

| Dimensional drawing | ph ph |
|---------------------|----------|
| Pitch | 5.08 mm |
| Width [w] | 43.14 mm |
| Height [h] | 17 mm |



1709470

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| Length [I] | 12.7 mm |
|-----------------------|------------|
| Installed height | 13.6 mm |
| Solder pin length [P] | 3.4 mm |
| Pin dimensions | 0.5 x 1 mm |
| PCB design | |
| Hole diameter | 1.3 mm |

Mechanical tests

Test for conductor damage and slackening

| Specification | IEC 60999-1:1999-11 |
|---|-----------------------------|
| Result | Test passed |
| Pull-out test | |
| Specification | IEC 60999-1:1999-11 |
| Conductor cross-section/conductor type/tractive force setpoint/actual value | 0.2 mm² / solid / > 10 N |
| | 0.2 mm² / flexible / > 10 N |
| | 1.5 mm² / solid / > 40 N |
| | 1.5 mm² / flexible / > 40 N |

Electrical tests

Temperature-rise test

| Specification | IEC 60947-7-4:2019-01 |
|--|--|
| Requirement temperature-rise test | The sum of ambient temperature and temperature rise of the PCB terminal block shall not exceed the upper limiting temperature. |
| Short-time withstand current | |
| Specification | IEC 60947-7-4:2019-01 |
| Insulation resistance | |
| Specification | IEC 60512-3-1:2002-02 |
| Insulation resistance, neighboring positions | > 5 MΩ |

Air clearances and creepage distances I

| Air clearances and creepage distances | |
|--|---|
| Specification | IEC 60947-1:2007-06 + A1:2010-12 + A2:2014-09 |
| Insulating material group | I |
| Comparative tracking index (IEC 60112) | CTI 600 |
| Rated insulation voltage (III/3) | 250 V |
| Rated surge voltage (III/3) | 4 kV |
| minimum clearance value - non-homogenous field (III/3) | 3 mm |
| minimum creepage distance (III/3) | 3.2 mm |
| Rated insulation voltage (III/2) | 400 V |
| Rated surge voltage (III/2) | 4 kV |
| minimum clearance value - non-homogenous field (III/2) | 3 mm |
| minimum creepage distance (III/2) | 3 mm |



1709470

https://www.phoenixcontact.com/us/products/1709470

| Rated insulation voltage (II/2) | 630 V |
|---|--------|
| Rated surge voltage (II/2) | 4 kV |
| minimum clearance value - non-homogenous field (II/2) | 3 mm |
| minimum creepage distance (II/2) | 3.2 mm |

Environmental and real-life conditions

| Vi | n | ra | tı | \sim | 1 | tΔ | CI |
|----|---|----|----|--------|----------|----|----|
| | | | | | | | |

| Specification | IEC 60068-2-6:2007-12 |
|------------------------|-------------------------|
| Frequency | 10 - 150 - 10 Hz |
| Sweep speed | 1 octave/min |
| Amplitude | 0.35 mm (10 Hz 60.1 Hz) |
| Acceleration | 5g (60.1 Hz 150 Hz) |
| Test duration per axis | 2.5 h |
| Test directions | X-, Y- and Z-axis |

Glow-wire test

| Specification | IEC 60695-2-10:2013-04 |
|------------------|------------------------|
| Temperature | 850 °C |
| Time of exposure | 5 s |

Aging

| Specification | IEC 60947-7-4:2019-01 |
|---|---|
| Ambient conditions | |
| Ambient temperature (operation) | -40 °C 105 °C (Depending on the current carrying capacity/derating curve) |
| Ambient temperature (storage/transport) | -40 °C 70 °C |
| Relative humidity (storage/transport) | 30 % 70 % |

-5 °C ... 100 °C

Packaging specifications

Ambient temperature (assembly)

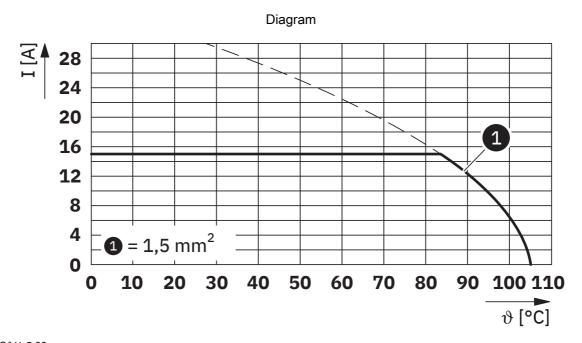
| | Type of packaging | packed in cardboard | |
|--|-------------------|---------------------|--|
|--|-------------------|---------------------|--|



1709470

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Drawings



Type: FFKDS/V1-5,08



1709470

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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1709470

| c 911 us | CULus Recognized Approval ID: E60425-19870330 | | | | |
|-----------------|---|-----------------------|--------------------------------|-------------------|-------------------------------|
| | | Nominal voltage U_N | Nominal current I _N | Cross section AWG | Cross section mm ² |
| В | | | | | |
| | | 300 V | 10 A | 22 - 16 | - |
| D | | | | | |
| | | 300 V | 10 A | 22 - 16 | - |



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Classifications

ECLASS

| | ECLASS-13.0 | 27460101 |
|----|-------------|----------|
| | ECLASS-15.0 | 27460101 |
| ΕT | ¬IM | |
| | ETIM 9.0 | EC002643 |
| U | NSPSC | |
| | UNSPSC 21.0 | 39121400 |



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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% |

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