

5442248

https://www.phoenixcontact.com/in/products/5442248

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PCB terminal block, nominal current: 13.5 A, rated voltage (III/2): 200 V, nominal cross section: 1.5 mm², number of potentials: 2, number of rows: 1, number of positions per row: 2, product range: BC-X9, pitch: 3.5 mm, connection method: Screw connection with tension sleeve, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: pastel green, Pin layout: Linear pinning, Solder pin [P]: 3.5 mm, number of solder pins per potential: 1, type of packaging: packed in cardboard

### **Commercial Data**

| Item number                          | 5442248       |
|--------------------------------------|---------------|
| Packing unit                         | 100 pc        |
| Minimum order quantity               | 100 pc        |
| Sales Key                            | AAL           |
| Product Key                          | AALFPG        |
| GTIN                                 | 4046356838351 |
| Weight per Piece (including packing) | 1.091 g       |
| Weight per Piece (excluding packing) | 1.09 g        |
| Customs tariff number                | 85369010      |
| Country of origin                    | CN            |



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## **Technical Data**

## Product properties

| Туре                      | PC termination block           |
|---------------------------|--------------------------------|
| Product line              | COMBICON Terminals S           |
| Product type              | Printed circuit board terminal |
| Product family            | BC-X9                          |
| Number of positions       | 2                              |
| Pitch                     | 3.5 mm                         |
| Number of connections     | 2                              |
| Number of rows            | 1                              |
| Number of potentials      | 2                              |
| Pin layout                | Linear pinning                 |
| Solder pins per potential | 1                              |

## Electrical properties

| Nominal current I <sub>N</sub> | 13.5 A |
|--------------------------------|--------|
| Nominal voltage U <sub>N</sub> | 200 V  |
| Degree of pollution            | 3      |
| Rated voltage (III/3)          | 160 V  |
| Rated surge voltage (III/3)    | 2.5 kV |
| Rated voltage (III/2)          | 200 V  |
| Rated surge voltage (III/2)    | 2.5 kV |
| Rated voltage (II/2)           | 400 V  |
| Rated surge voltage (II/2)     | 2.5 kV |

### Connection data

### Connection technology

| Туре                  | PC termination block |
|-----------------------|----------------------|
| Nominal cross section | 1.5 mm <sup>2</sup>  |

#### Conductor connection

| Connection method   | Screw connection with tension sleeve |
|---|--------------------------------------|
| Conductor cross section rigid   | 0.14 mm² 1.5 mm²                     |
| Conductor cross section flexible                                      | 0.14 mm² 1.5 mm²                     |
| Conductor cross section AWG   | 26 16                                |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.25 mm² 0.5 mm²                     |
| Conductor cross section, flexible, with ferrule, with plastic sleeve  | 0.25 mm² 0.5 mm²                     |
| 2 conductors with same cross section, solid                           | 0.14 mm² 0.5 mm²                     |
| 2 conductors with same cross section, flexible                        | 0.14 mm² 0.34 mm²                    |
| Stripping length  | 5 mm                                 |
| Tightening torque   | 0.22 Nm 0.25 Nm                      |



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## Mounting

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

## 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)   | pastel green (6019) |
|---|---------------------|
| 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 () | () |  |

### Notes

| Note on application | For safe conductor connection, always adhere to a defined tightening torque. Particularly in the case of PCB terminal blocks with two or three positions, the individual solder pin for each contact point cannot compensate for this. That is why the terminal blocks must be supported during conductor connection (held with one hand, support on the housing). |
|---------------------|--|
|---------------------|--|

## Dimensions

| Dimensional drawing | ph ph  |
|---------------------|--------|
| Pitch               | 3.5 mm |
| Width [w]           | 7.5 mm |



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| Height [h]            | 12 mm  |
|-----------------------|--------|
| Length [I]            | 7.3 mm |
| Installed height      | 8.5 mm |
| Solder pin length [P] | 3.5 mm |

### Electrical tests

#### Air clearances and creepage distances |

| 7 ological ologogo diotalioso                          |                     |  |
|--|---------------------|--|
| Specification  | IEC 60664-1:2007-04 |  |
| Insulating material group                              | I                   |  |
| Comparative tracking index (IEC 60112)                 | CTI 600             |  |
| Rated insulation voltage (III/3)                       | 160 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)                      | 2 mm                |  |
| Rated insulation voltage (III/2)                       | 200 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)                      | 1.5 mm              |  |
| Rated insulation voltage (II/2)                        | 400 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)                       | 2 mm                |  |
|  |                     |  |

### Environmental and real-life conditions

#### Ambient conditions

| Ambient temperature (operation)         | -40 °C 100 °C (Depending on the current carrying capacity/derating curve) |
|---|---|
| Ambient temperature (storage/transport) | -40 °C 70 °C  |
| Relative humidity (storage/transport)   | 30 % 70 %   |
| Ambient temperature (assembly)          | -5 °C 100 °C  |

## Packaging specifications

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

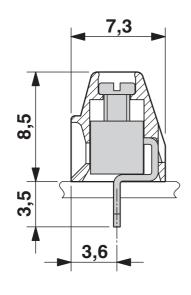


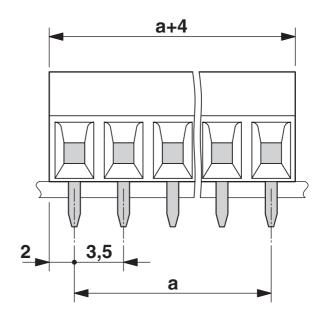
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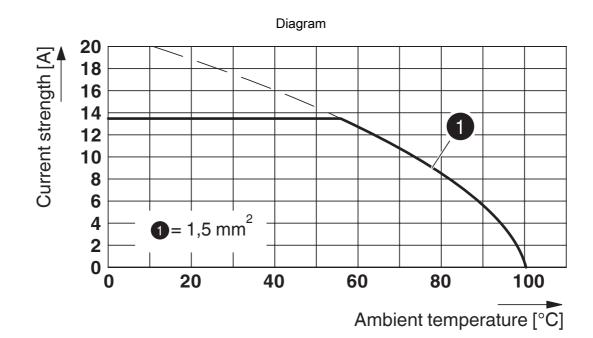
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## Drawings

## Dimensional drawing





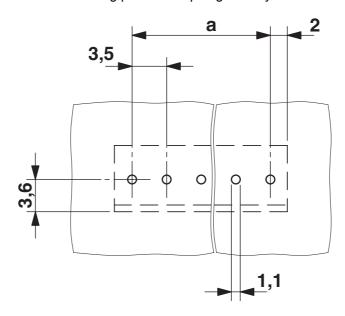




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## Drilling plan/solder pad geometry





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## Approvals



EAC

Approval ID: B.01687

| cULus Recognized Approval ID: E60425-20071007 |                                |                                |                   |                               |
|---|--------------------------------|--------------------------------|-------------------|-------------------------------|
|   | Nominal Voltage U <sub>N</sub> | Nominal Current I <sub>N</sub> | Cross Section AWG | Cross Section mm <sup>2</sup> |
| Use group B                                   |                                |                                |                   |                               |
|   | 300 V                          | 10 A                           | 30 - 16           | -                             |
| Use group D                                   |                                |                                |                   |                               |
|   | 300 V                          | 10 A                           | 30 - 16           | -                             |

| VDE Zeichengenehmigung Approval ID: 40042618 |                       |                                |                   |                               |
|--|-----------------------|--------------------------------|-------------------|-------------------------------|
|  | Nominal Voltage $U_N$ | Nominal Current I <sub>N</sub> | Cross Section AWG | Cross Section mm <sup>2</sup> |
|  | 200 V                 | 13.5 A                         | -                 | 0.14 - 1.5                    |



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## Classifications

UNSPSC 21.0

### **ECLASS**

|        | ECLASS-11.0 | 27460101 |
|--------|-------------|----------|
|        | ECLASS-12.0 | 27460101 |
|        | ECLASS-13.0 | 27460101 |
| ETIM   |             |          |
|        | ETIM 8.0    | EC002643 |
| UNSPSC |             |          |

39121400



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## **Environmental Product Compliance**

| REACh SVHC | Lead 7439-92-1   |  |
|------------|--|--|
|            |  |  |
| China RoHS | Environmentally Friendly Use Period = 50 years   |  |
|            | For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads" |  |



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#### Accessories

### SZS 0,4X2,5 VDE - Screwdriver

1205037

https://www.phoenixcontact.com/in/products/1205037



Screwdriver, slot-headed, VDE insulated, size:  $0.4 \times 2.5 \times 80$  mm, 2-component grip, with non-slip grip

### SK 3,81/2,8:FORTL.ZAHLEN - Marker card

0804109

https://www.phoenixcontact.com/in/products/0804109



Marker card, white, labeled, horizontal: consecutive numbers 1  $\dots$  10, 11  $\dots$  20, etc. up to 91  $\dots$  (99)100, mounting type: adhesive, for terminal block width: 3.81 mm, lettering field size: 3.81 x 2.8 mm



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### B-STIFT - Marker pen

1051993

https://www.phoenixcontact.com/in/products/1051993



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

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