

1985276

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Printed circuit board terminal, nominal current: 8 A, rated voltage (III/2): 400 V, nominal cross section: 1.5 mm², number of potentials: 10, number of rows: 1, number of positions per row: 10, product range: PTSA 1,5, pitch: 3.5 mm, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 45 °, color: green, Pin layout: Zigzag pinning W, Solder pin [P]: 3.5 mm, number of solder pins per potential: 1, type of packaging: packed in cardboard. Offset soldering legs, two-rowed

## Your advantages

- · Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- · Angled connection enables multi-row arrangement on the PCB

### Commercial data

| Item number                          | 1985276       |
|--------------------------------------|---------------|
| Packing unit                         | 100 pc        |
| Minimum order quantity               | 100 pc        |
| Sales key                            | AA12          |
| Product key                          | AALBDA        |
| GTIN                                 | 4017918922351 |
| Weight per piece (including packing) | 5.41 g        |
| Weight per piece (excluding packing) | 4.891 g       |
| Customs tariff number                | 85369010      |
| Country of origin                    | CN            |



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## Technical data

## Product properties

| Product type              | Printed circuit board terminal |
|---------------------------|--------------------------------|
| Product family            | PTSA 1,5                       |
| Product line              | COMBICON Terminals S           |
| Туре                      | PC termination block           |
| Number of positions       | 10                             |
| Pitch                     | 3.5 mm                         |
| Number of connections     | 10                             |
| Number of rows            | 1                              |
| Number of potentials      | 10                             |
| Pin layout                | Zigzag pinning W               |
| Solder pins per potential | 1                              |

## Electrical properties

### Properties

| Nominal current I <sub>N</sub> | 8 A   |
|--------------------------------|-------|
| Nominal voltage U <sub>N</sub> | 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 termination block |
|-----------------------|----------------------|
| Nominal cross section | 1.5 mm²              |
|                       |                      |

## Conductor connection

| Conductor connection  |                           |
|---|---------------------------|
| Connection method   | Push-in spring connection |
| Conductor cross-section rigid   | 0.2 mm² 1.5 mm²           |
| Conductor cross-section flexible                                      | 0.2 mm² 1.5 mm²           |
| Conductor cross-section AWG   | 24 16                     |
| Conductor cross-section flexible, with ferrule without plastic sleeve | 0.25 mm² 1 mm²            |
| Conductor cross-section, flexible, with ferrule, with plastic sleeve  | 0.25 mm² 0.5 mm²          |
| Stripping length  | 9 mm                      |

## Mounting



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| Pin layout  | Zigzag pinning W                                       |
|---|--|
|   | 33 p3  |
| terial specifications   |  |
| Material data - contact   |  |
| Note  | WEEE/RoHS-compliant, free of whiskers according to IEC |
| Note  | 60068-2-82/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 soldering area (top layer)                          | Tin (4 - 8 µm Sn)                                      |
| Material data - housing   |  |
| Color (Housing)   | green (6021)   |
| 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   |
| Material data – actuating element                                 |  |
| Color (Actuating element)   | green (6021)   |
|   |  |
| nensions  |  |
| Dimensional drawing   | h  |

| PCB | design |
|-----|--------|

Pitch

Width [w]

Height [h]

Length [I]

Installed height

Pin dimensions

Solder pin length [P]

| PCB design    |        |  |
|---------------|--------|--|
| Pin spacing   | 3.5 mm |  |
| Hole diameter | 1 mm   |  |

3.5 mm

36.5 mm

16.7 mm

12 mm

13.1 mm

3.5 mm

0.4 x 0.75 mm

### Mechanical tests



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| 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 60947-7-4:2013-08  |
|--|--|
| 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 60947-7-4:2013-08  |
| Insulation resistance                        |  |
| Specification                                | IEC 60512-3-1:2002-02  |
| Insulation resistance, neighboring positions | > 5 MΩ   |

## Air clearances and creepage distances |

| Air clearances and creepage distances                  |   |
|--|---|
| Specification  | IEC 60947-1:2007-06 + A1:2010-12 + A2:2014-09 |
| Insulating material group                              | l l   |
| 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  |
| Note on connection cross section                       | With connected conductor 1.5 mm² (solid).     |
| 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  |
| 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

## Vibration test



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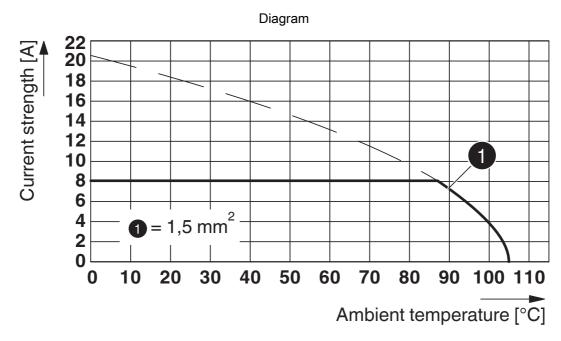
| Specification                           | IEC 60068-2-6:2007-12   |
|---|---|
| Frequency                               | 10 - 150 - 10 Hz  |
| Sweep speed                             | 1 octave/min  |
| Amplitude                               | 0.35 mm (10 Hz 60.1 Hz)   |
| Acceleration                            | 5g (60.1 Hz 150 Hz)   |
| Test duration per axis                  | 2.5 h   |
| Test directions                         | X-, Y- and Z-axis   |
| ow-wire test                            |   |
| Specification                           | IEC 60695-2-10:2000-10  |
| Temperature                             | 850 °C  |
| Time of exposure                        | 5 s   |
| ging                                    |   |
| Specification                           | IEC 60947-7-4:2013-08   |
| abient 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 85 °C   |
|   |   |
| kaging specifications                   |   |
| Type of packaging                       | packed in cardboard   |

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## **Drawings**

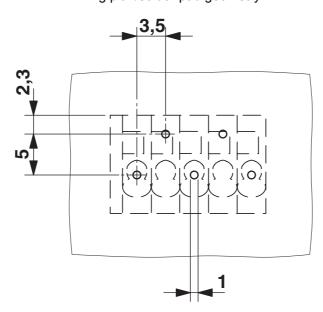


Type: PTSA 1,5/4-3,5-Z

Tested in accordance with DIN EN 60512-5-2:2003-01

Reduction factor = 1 Number of positions: 4

### Drilling plan/solder pad geometry



The figure shows the drilling plan of the 5-pos. version of the article – Zig-zag pinning starts at the right-hand position. Other pinning available on request.



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# **Approvals**

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1985276

| CULus Recognized Approval ID: E60425-20030527 |                       |                                |                   |                               |
|---|-----------------------|--------------------------------|-------------------|-------------------------------|
|   | Nominal voltage $U_N$ | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |
| В   |                       |                                |                   |                               |
|   | 300 V                 | 5 A                            | 24 - 16           | -                             |
| D   |                       |                                |                   |                               |
|   | 300 V                 | 5 A                            | 24 - 16           | -                             |

| <b>₩</b> | VDE report with production monitoring Approval ID: 40018594 |                                |                                |                   |                               |
|----------|---|--------------------------------|--------------------------------|-------------------|-------------------------------|
|          |   | Nominal voltage U <sub>N</sub> | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |
| keine    |   |                                |                                |                   |                               |
|          |   | 250 V                          | 2 A                            | -                 | 0.5 - 0.75                    |

|       | VDE approval of drawings Approval ID: 40057505 |                                |                                |                   |                               |
|-------|--|--------------------------------|--------------------------------|-------------------|-------------------------------|
|       |  | Nominal voltage U <sub>N</sub> | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |
| keine |  |                                |                                |                   |                               |
|       |  | 400 V                          | 8 A                            | -                 | 0.2 - 1.5                     |



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# Classifications

### **ECLASS**

|        | ECLASS-13.0 | 27460101 |  |  |  |
|--------|-------------|----------|--|--|--|
|        | ECLASS-15.0 | 27460101 |  |  |  |
| ΕΊ     | ETIM        |          |  |  |  |
|        | ETIM 9.0    | EC002643 |  |  |  |
| UNSPSC |             |          |  |  |  |
|        | 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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Phoenix Contact USA 586 Fulling Mill Road Middletown, PA 17057, United States (+717) 944-1300 info@phoenixcon.com