

# ZEC 1,5/ 9-LPV-5,0 C2 - PCB connector



1898334

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PCB connector, nominal cross section: 1.5 mm<sup>2</sup>, color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: ZEC 1,5/.-LPV, pitch: 5 mm, mounting: Direct plug-in method, conductor/PCB connection direction: 0 °, number of solder pins per potential: 2, plug-in system: ZEC, locking: without, mounting: without, type of packaging: packed in cardboard

## Your advantages

- Easy component connection
- Inexpensive direct plug-in connection with just one component

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1898334       |
| Packing unit                         | 50 pc         |
| Minimum order quantity               | 50 pc         |
| Sales key                            | AA03          |
| Product key                          | AACEAA        |
| GTIN                                 | 4017918167042 |
| Weight per piece (including packing) | 8 g           |
| Weight per piece (excluding packing) | 6.96 g        |
| Customs tariff number                | 85366930      |
| Country of origin                    | GR            |

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## Technical data

### Product properties

|                           |                       |
|---------------------------|-----------------------|
| Product type              | PCB connector         |
| Product family            | ZEC 1,5/...-LPV       |
| Product line              | COMBICON Connectors M |
| Type                      | PCB connector         |
| Number of positions       | 9                     |
| Pitch                     | 5 mm                  |
| Number of connections     | 9                     |
| Number of rows            | 1                     |
| Number of potentials      | 9                     |
| Mounting flange           | without               |
| Solder pins per potential | 2                     |

### Electrical properties

|                             |                |
|-----------------------------|----------------|
| Nominal current $I_N$       | 10 A           |
| Nominal voltage $U_N$       | 320 V          |
| Degree of pollution         | 3              |
| Contact resistance          | 1.2 m $\Omega$ |
| Rated voltage (III/3)       | 250 V          |
| Rated surge voltage (III/3) | 4 kV           |
| Rated voltage (III/2)       | 320 V          |
| Rated surge voltage (III/2) | 4 kV           |
| Rated voltage (II/2)        | 630 V          |
| Rated surge voltage (II/2)  | 4 kV           |

### Mounting

|               |                       |
|---------------|-----------------------|
| Mounting type | Direct plug-in method |
|---------------|-----------------------|

### 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                | hot-dip tin-plated   |
| Metal surface contact area (top layer) | Tin (4 - 8 $\mu$ m Sn)   |

#### Material data - housing

|  |              |
|--|--------------|
| Color (Housing)                        | green (6021) |
| Insulating material                    | PA           |
| Insulating material group              | I            |
| CTI according to IEC 60112             | 600          |
| Flammability rating according to UL 94 | V0           |

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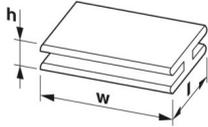
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|   |        |
|---|--------|
| Glow wire flammability index GWFI according to EN 60695-2-12      | 850    |
| Glow wire ignition temperature GWIT according to EN 60695-2-13    | 775    |
| Temperature for the ball pressure test according to EN 60695-10-2 | 125 °C |

## Notes

|                    |  |
|--------------------|--|
| Notes on operation | In accordance with IEC 61984, COMBICON connectors have no switching power (COC). During designated use, they must not be plugged in or disconnected when carrying voltage or under load. |
|--------------------|--|

## Dimensions

|                     |  |
|---------------------|--|
| Dimensional drawing |  |
| Pitch               | 5 mm   |
| Width [w]           | 46.37 mm   |
| Height [h]          | 7 mm   |
| Length [l]          | 22.9 mm  |
| Installed height    | 7 mm   |

## Mechanical tests

### Insertion and withdrawal forces

|                                     |             |
|-------------------------------------|-------------|
| Result                              | Test passed |
| No. of cycles                       | 20          |
| Insertion strength per pos. approx. | 6 N         |
| Withdraw strength per pos. approx.  | 3 N         |

### Resistance of inscriptions

|               |                        |
|---------------|------------------------|
| Specification | IEC 60068-2-70:1995-12 |
| Result        | Test passed            |

### Visual inspection

|               |                     |
|---------------|---------------------|
| Specification | IEC 60512-2:1985-00 |
| Result        | Test passed         |

### Dimension check

|               |                     |
|---------------|---------------------|
| Specification | IEC 60512-2:1985-00 |
| Result        | Test passed         |

## Electrical tests

### Air clearances and creepage distances |

|               |                     |
|---------------|---------------------|
| Specification | IEC 60664-1:2007-04 |
|---------------|---------------------|

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|  |         |
|--|---------|
| 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)                       | 320 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

|                        |                             |
|------------------------|-----------------------------|
| Specification          | IEC 60068-2-6:1995-03       |
| 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                       |

### Durability test

|                                   |                     |
|-----------------------------------|---------------------|
| Specification                     | IEC 60512-5:1992-08 |
| Contact resistance R <sub>1</sub> | 1.2 mΩ              |
| Contact resistance R <sub>2</sub> | 1.5 mΩ              |
| Insertion/withdrawal cycles       | 20                  |

### Climatic test

|                                   |   |
|-----------------------------------|---|
| Specification                     | ISO 6988:1985-02  |
| Corrosive stress                  | 0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/1 cycle |
| Thermal stress                    | 100 °C/168 h  |
| Power-frequency withstand voltage | 2.21 kV   |

### Ambient conditions

|   |   |
|---|---|
| Ambient temperature (operation)         | -40 °C ... 100 °C (dependent on the 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 |
|-------------------|---------------------|

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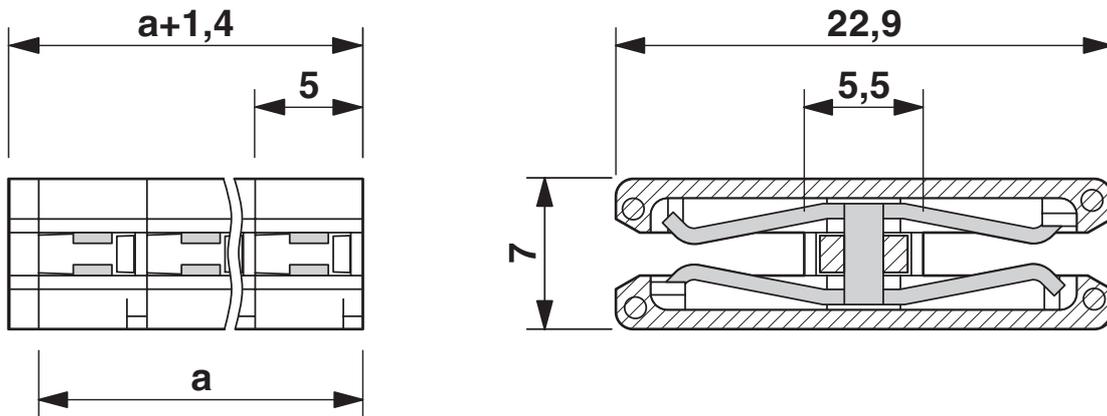


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## Drawings

### Dimensional drawing



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1898334>

|  <b>cULus Recognized</b><br>Approval ID: E60425-19941110 |                       |                       |                   |                             |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
|   | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| Use group B   | 300 V                 | 10 A                  | -                 | -                           |
| Use group D   | 300 V                 | 10 A                  | -                 | -                           |

|  <b>VDE Gutachten mit Fertigungsüberwachung</b><br>Approval ID: 40020343 |                       |                       |                   |                             |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
|   | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|   | 250 V                 | 10 A                  | -                 | -                           |

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27460201 |
| ECLASS-12.0 | 27460201 |
| ECLASS-13.0 | 27460201 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC002637 |
|----------|----------|

### 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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