

# ZEC 1,5/ 7-LPV-7,5 C2 - PCB connector



1898428

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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): 630 V, contact surface: Sn, contact connection type: Socket, number of potentials: 7, number of rows: 1, number of positions: 7, number of connections: 7, product range: ZEC 1,5/.-LPV, pitch: 7.5 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 method: 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                          | 1898428                        |
| Packing unit                         | 50 pc                          |
| Minimum order quantity               | 50 pc                          |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | AACEBA                         |
| Product key                          | AACEBA                         |
| Catalog page                         | Page 367 (C-1-2013)            |
| GTIN                                 | 4017918167134                  |
| Weight per piece (including packing) | 7.7 g                          |
| Weight per piece (excluding packing) | 7.358 g                        |
| Customs tariff number                | 85366930                       |
| Country of origin                    | BG                             |

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## Technical data

### Product properties

|                           |                       |
|---------------------------|-----------------------|
| Product type              | PCB connector         |
| Product family            | ZEC 1,5/...-LPV       |
| Product line              | COMBICON Connectors S |
| Type                      | PCB connector         |
| Number of positions       | 7                     |
| Pitch                     | 7.5 mm                |
| Number of connections     | 7                     |
| Number of rows            | 1                     |
| Number of potentials      | 7                     |
| Mounting flange           | without               |
| Solder pins per potential | 2                     |

### Electrical properties

#### Properties

|                             |                |
|-----------------------------|----------------|
| Nominal current $I_N$       | 10 A           |
| Nominal voltage $U_N$       | 630 V          |
| Contact resistance          | 1.2 m $\Omega$ |
| Rated voltage (III/3)       | 400 V          |
| Rated surge voltage (III/3) | 6 kV           |
| Rated voltage (III/2)       | 630 V          |
| Rated surge voltage (III/2) | 6 kV           |
| Rated voltage (II/2)        | 1000 V         |
| Rated surge voltage (II/2)  | 6 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          |

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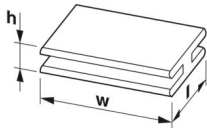
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|                                                                   |        |
|-------------------------------------------------------------------|--------|
| Flammability rating according to UL 94                            | V0     |
| Glow wire 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 |

## 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               | 7.5 mm                                                                             |
| Width [w]           | 53.9 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 |

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|                                                        |                     |
|--------------------------------------------------------|---------------------|
| Specification                                          | IEC 60664-1:2007-04 |
| Insulating material group                              | I                   |
| Comparative tracking index (IEC 60112)                 | CTI 600             |
| Rated insulation voltage (III/3)                       | 400 V               |
| Rated surge voltage (III/3)                            | 6 kV                |
| minimum clearance value - non-homogenous field (III/3) | 5.5 mm              |
| minimum creepage distance (III/3)                      | 5.5 mm              |
| Rated insulation voltage (III/2)                       | 630 V               |
| Rated surge voltage (III/2)                            | 6 kV                |
| minimum clearance value - non-homogenous field (III/2) | 5.5 mm              |
| minimum creepage distance (III/2)                      | 5.5 mm              |
| Rated insulation voltage (II/2)                        | 1000 V              |
| Rated surge voltage (II/2)                             | 6 kV                |
| minimum clearance value - non-homogenous field (II/2)  | 5.5 mm              |
| minimum creepage distance (II/2)                       | 5.5 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                       |
| Test directions        | X-, Y- and Z-axis           |

### Durability test

|                             |                     |
|-----------------------------|---------------------|
| Specification               | IEC 60512-5:1992-08 |
| Contact resistance $R_1$    | 1.2 mΩ              |
| Contact resistance $R_2$    | 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 | 3.31 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

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

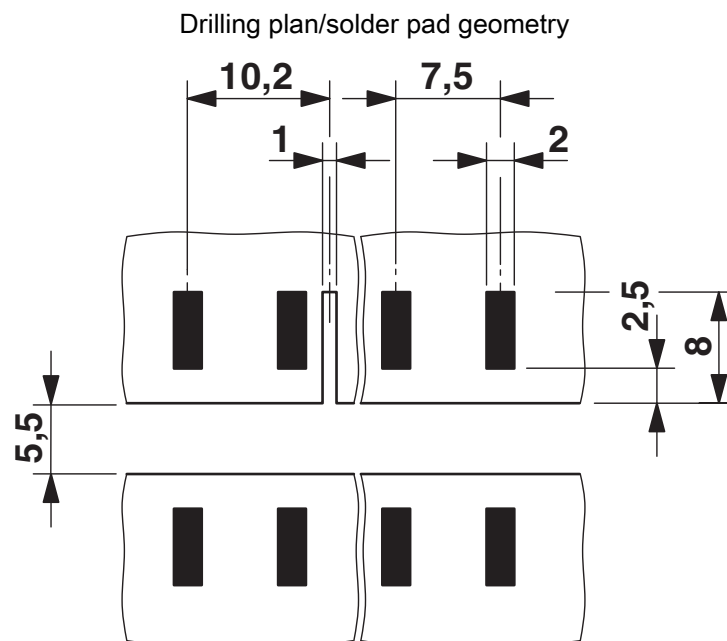
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## Drawings



Size of the PCB:  $1.6 \pm 0.2$  mm

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/1898428>

| cULus Recognized<br>Approval ID: E60425-19941111 |                       |                       |                   |                             |
|--------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                  | 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                  | -                 | -                           |

| VDE report with production monitoring<br>Approval ID: 40020343 |                       |                       |                   |                             |
|----------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                | 400 V                 | 10 A                  | -                 | -                           |

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| 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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