

# CCV 2,5/ 8-GF-5,08P26AUTHRR88 - PCB header



1712296

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PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Au, contact connection type: Pin, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: CCV 2,5/..-GF, pitch: 5.08 mm, mounting: THR soldering / wave soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: Screw locking mechanism, mounting method: Threaded flange, type of packaging: 88 mm wide tape

## Your advantages

- Gold-plated contacts ensure transfer quality remains stable over the long term
- Designed for integration into the SMT soldering process
- Vertical connection enables multi-row arrangement on the PCB
- Screwable flange for superior mechanical stability
- Maximum flexibility when it comes to device design – one header for connectors with different connection technologies

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1712296       |
| Packing unit                         | 140 pc        |
| Minimum order quantity               | 140 pc        |
| Sales key                            | AA03          |
| Product key                          | AACTBH        |
| GTIN                                 | 4046356085311 |
| Weight per piece (including packing) | 9.07 g        |
| Weight per piece (excluding packing) | 8.67 g        |
| Customs tariff number                | 85366930      |
| Country of origin                    | DE            |

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## Technical data

### Product properties

|                           |                                            |
|---------------------------|--------------------------------------------|
| Product type              | PCB headers                                |
| Product family            | CCV 2,5/...-GF                             |
| Product line              | COMBICON Connectors M                      |
| Type                      | Component suitable for through hole reflow |
| Number of positions       | 8                                          |
| Pitch                     | 5.08 mm                                    |
| Number of connections     | 8                                          |
| Number of rows            | 1                                          |
| Number of potentials      | 8                                          |
| Mounting type             | Threaded flange                            |
| Pin layout                | Linear pinning                             |
| Solder pins per potential | 1                                          |

### Electrical properties

#### Properties

|                             |       |
|-----------------------------|-------|
| Nominal current $I_N$       | 12 A  |
| Nominal voltage $U_N$       | 320 V |
| 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)        | 400 V |
| Rated surge voltage (II/2)  | 4 kV  |

### Mounting

|               |                                |
|---------------|--------------------------------|
| Mounting type | THR soldering / wave soldering |
| Pin layout    | Linear pinning                 |

#### Flange

|                   |        |
|-------------------|--------|
| Tightening torque | 0.3 Nm |
|-------------------|--------|

### 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                   | partially gold-plated                                                            |
| Metal surface contact area (top layer)    | Gold (0.8 - 1.4 $\mu\text{m}$ Au)                                                |
| Metal surface contact area (middle layer) | Nickel (2 - 4 $\mu\text{m}$ Ni)                                                  |
| Metal surface soldering area (top layer)  | Tin (5 - 7 $\mu\text{m}$ Sn)                                                     |

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|                                             |                      |
|---------------------------------------------|----------------------|
| Metal surface soldering area (middle layer) | Nickel (2 - 4 µm Ni) |
|---------------------------------------------|----------------------|

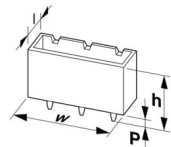
## Material data - housing

|                                        |              |
|----------------------------------------|--------------|
| Color (Housing)                        | black (9005) |
| Insulating material                    | LCP          |
| Insulating material group              | IIIa         |
| CTI according to IEC 60112             | 175          |
| Flammability rating according to UL 94 | V0           |

## Notes

|                                 |                                                                                                                                                                                 |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Details for soldering processes | Processing using reflow processes in compliance with IEC 60068-2-58 or DIN EN 61760-1 (latest version)<br>Moisture Sensitive Level (MSL) = 1 according to IPC/JEDEC J-STD-020-C |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Dimensions

|                       |                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------|
| Dimensional drawing   |  |
| Pitch                 | 5.08 mm                                                                             |
| Width [w]             | 50.75 mm                                                                            |
| Height [h]            | 14.6 mm                                                                             |
| Length [l]            | 8.57 mm                                                                             |
| Installed height      | 12 mm                                                                               |
| Solder pin length [P] | 2.6 mm                                                                              |
| Pin dimensions        | 1 x 1 mm                                                                            |

## PCB design

|               |        |
|---------------|--------|
| Hole diameter | 1.6 mm |
|---------------|--------|

## Electrical tests

### Air clearances and creepage distances |

|                                                        |                     |
|--------------------------------------------------------|---------------------|
| Specification                                          | IEC 60664-1:2007-04 |
| Insulating material group                              | IIIa                |
| Comparative tracking index (IEC 60112)                 | CTI 175             |
| 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)                      | 4 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)                      | 3.2 mm              |

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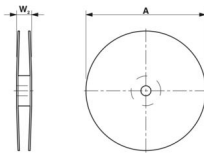
|                                                       |       |
|-------------------------------------------------------|-------|
| Rated insulation voltage (II/2)                       | 400 V |
| Rated surge voltage (II/2)                            | 4 kV  |
| minimum clearance value - non-homogenous field (II/2) | 3 mm  |
| minimum creepage distance (II/2)                      | 4 mm  |

## Environmental and real-life conditions

### 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

|                             |                                                                                     |
|-----------------------------|-------------------------------------------------------------------------------------|
| Dimensional drawing         |  |
| Type of packaging           | 88 mm wide tape                                                                     |
| [W] tape width              | 88 mm                                                                               |
| [W2] coil overall dimension | ≤ 94.4 mm                                                                           |
| [A] coil diameter           | ≤ 330 mm                                                                            |
| Outer packaging type        | Transparent-Bag                                                                     |

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## Approvals

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|  <b>cULus Recognized</b><br>Approval ID: E60425-19931011 |                       |                       |                   |                             |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                                           | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| B                                                                                                                                         |                       |                       |                   |                             |
| Standard                                                                                                                                  | 300 V                 | 16 A                  | -                 | -                           |
| D                                                                                                                                         |                       |                       |                   |                             |
| Standard                                                                                                                                  | 300 V                 | 10 A                  | -                 | -                           |
| Alternative 1                                                                                                                             | 150 V                 | 15 A                  | -                 | -                           |

|  <b>VDE approval of drawings</b><br>Approval ID: 40050079 |                       |                       |                   |                             |
|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                                            | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| keine                                                                                                                                      |                       |                       |                   |                             |
|                                                                                                                                            | 320 V                 | 16 A                  | -                 | -                           |

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27460201 |
| ECLASS-15.0 | 27460201 |

### ETIM

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

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39121400 |
|-------------|----------|

## Environmental product compliance

## EU RoHS

|                                         |                    |
|-----------------------------------------|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|-----------------------------------------|--------------------|

## China RoHS

|                                        |                                                                                                                                                                                                                                   |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environment friendly use period (EFUP) | EFUP-50                                                                                                                                                                                                                           |
|                                        | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

## EU REACH SVHC

|                                     |                            |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|