

# PCV 4/ 4-G-6,35 P26 THR - PCB header



1271659

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PCB headers, nominal cross section: 4 mm<sup>2</sup>, color: black, nominal current: 24 A, rated voltage (III/2): 800 V, contact surface: Sn, contact connection type: Pin, number of rows: 1, number of positions: 4, product range: PCV 4/..-G-THR, pitch: 6.35 mm, mounting: THR soldering / wave soldering, pin layout: Zigzag pinning W, solder pin [P]: 2.6 mm, number of solder pins per potential: 1, plug-in system: COMBICON PC 4, Pin connector pattern alignment: Standard, locking: without, mounting method: without, type of packaging: packed in cardboard

## Your advantages

- Designed for integration into the SMT soldering process
- Increased touch protection in the pin connector pattern for maximum safety even when not plugged in
- Easy PCB replacement thanks to plug-in modules

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1271659       |
| Packing unit                         | 50 pc         |
| Minimum order quantity               | 50 pc         |
| Sales key                            | AA04          |
| Product key                          | AADTBC        |
| GTIN                                 | 4063151462284 |
| Weight per piece (including packing) | 7.596 g       |
| Weight per piece (excluding packing) | 2.22 g        |
| Customs tariff number                | 85366930      |
| Country of origin                    | CN            |

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## Technical data

### Product properties

|                           |                       |
|---------------------------|-----------------------|
| Product type              | PCB headers           |
| Product family            | PCV 4/..-G-THR        |
| Product line              | COMBICON Connectors L |
| Number of positions       | 4                     |
| Pitch                     | 6.35 mm               |
| Number of rows            | 1                     |
| Pin layout                | Zigzag pinning W      |
| Solder pins per potential | 1                     |

### Electrical properties

#### Properties

|                             |         |
|-----------------------------|---------|
| Nominal current $I_N$       | 24 A    |
| Nominal voltage $U_N$       | 800 V   |
| Contact resistance          | 0.81 mΩ |
| Rated voltage (III/3)       | 630 V   |
| Rated surge voltage (III/3) | 6 kV    |
| Rated voltage (III/2)       | 800 V   |
| Rated surge voltage (III/2) | 6 kV    |
| Rated voltage (II/2)        | 1000 V  |
| Rated surge voltage (II/2)  | 6 kV    |

### Mounting

|               |                                |
|---------------|--------------------------------|
| Mounting type | THR soldering / wave soldering |
| Pin layout    | Zigzag pinning W               |

#### Processing notes

|                                  |                       |
|----------------------------------|-----------------------|
| Process                          | Reflow/wave soldering |
| Moisture Sensitive Level         | MSL 1                 |
| Classification temperature $T_c$ | 260 °C                |
| Solder cycles in the reflow      | 3                     |

### 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 contact area (top layer)    | Tin (3 - 5 μm Sn)                                                                |
| Metal surface contact area (middle layer) | Nickel (1.3 - 3 μm Ni)                                                           |
| Metal surface soldering area (top layer)  | Tin (3 - 5 μm Sn)                                                                |

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|                                             |                        |
|---------------------------------------------|------------------------|
| Metal surface soldering area (middle layer) | Nickel (1.3 - 3 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           |
| 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 | 200 °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                 | 6.35 mm    |
| Width [w]             | 28.35 mm   |
| Height [h]            | 27.6 mm    |
| Length [l]            | 10.2 mm    |
| Installed height      | 25 mm      |
| Solder pin length [P] | 2.6 mm     |
| Pin dimensions        | 1.2 x 1 mm |

## PCB design

|               |        |
|---------------|--------|
| Hole diameter | 1.3 mm |
|---------------|--------|

## Mechanical tests

### Visual inspection

|               |                       |
|---------------|-----------------------|
| Specification | IEC 60512-1-1:2002-02 |
| Result        | Test passed           |

### Dimension check

|               |                       |
|---------------|-----------------------|
| Specification | IEC 60512-1-2:2002-02 |
| Result        | Test passed           |

### Resistance of inscriptions

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

## Polarization and coding

|               |                        |
|---------------|------------------------|
| Specification | IEC 60512-13-5:2006-02 |
| Result        | Test passed            |

## Contact holder in insert

|                                                |                        |
|------------------------------------------------|------------------------|
| Specification                                  | IEC 60512-15-1:2008-05 |
| Contact holder in insert<br>Requirements >20 N | Test passed            |

## Insertion and withdrawal forces

|                                     |             |
|-------------------------------------|-------------|
| Result                              | Test passed |
| No. of cycles                       | 25          |
| Insertion strength per pos. approx. | 8 N         |
| Withdraw strength per pos. approx.  | 6 N         |

## Electrical tests

### Thermal test | Test group C

|                            |                       |
|----------------------------|-----------------------|
| Specification              | IEC 60512-5-1:2002-02 |
| Tested number of positions | 12                    |

### Insulation resistance

|                                              |                       |
|----------------------------------------------|-----------------------|
| Specification                                | IEC 60512-3-1:2002-02 |
| Insulation resistance, neighboring positions | > 5 MΩ                |

### Air clearances and creepage distances |

|                                                        |                     |
|--------------------------------------------------------|---------------------|
| Specification                                          | IEC 60664-1:2020-05 |
| Insulating material group                              | IIIa                |
| Comparative tracking index (IEC 60112)                 | CTI 175             |
| Rated insulation voltage (III/3)                       | 630 V               |
| Rated surge voltage (III/3)                            | 6 kV                |
| minimum clearance value - non-homogenous field (III/3) | 5.5 mm              |
| minimum creepage distance (III/3)                      | 10 mm               |
| Rated insulation voltage (III/2)                       | 800 V               |
| Rated surge voltage (III/2)                            | 6 kV                |
| minimum clearance value - non-homogenous field (III/2) | 5.5 mm              |
| minimum creepage distance (III/2)                      | 8 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)                       | 10 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           | 50 m/s <sup>2</sup> (60.1 Hz ... 150 Hz) |
| Test duration per axis | 2.5 h                                    |
| Test directions        | X-, Y- and Z-axis                        |

## Durability test

|                                              |                       |
|----------------------------------------------|-----------------------|
| Specification                                | IEC 60512-9-1:2010-03 |
| Impulse withstand voltage at sea level       | 9.8 kV                |
| Contact resistance R <sub>1</sub>            | 0.81 mΩ               |
| Contact resistance R <sub>2</sub>            | 0.95 mΩ               |
| Insertion/withdrawal cycles                  | 25                    |
| Insulation resistance, neighboring positions | > 5 MΩ                |

## Climatic test

|                                   |                                                                           |
|-----------------------------------|---------------------------------------------------------------------------|
| Specification                     | EN ISO 22479:2022-06                                                      |
| Corrosive stress                  | 0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/1 cycle |
| Thermal stress                    | 105 °C/168 h                                                              |
| Power-frequency withstand voltage | 4.26 kV                                                                   |

## Ambient conditions

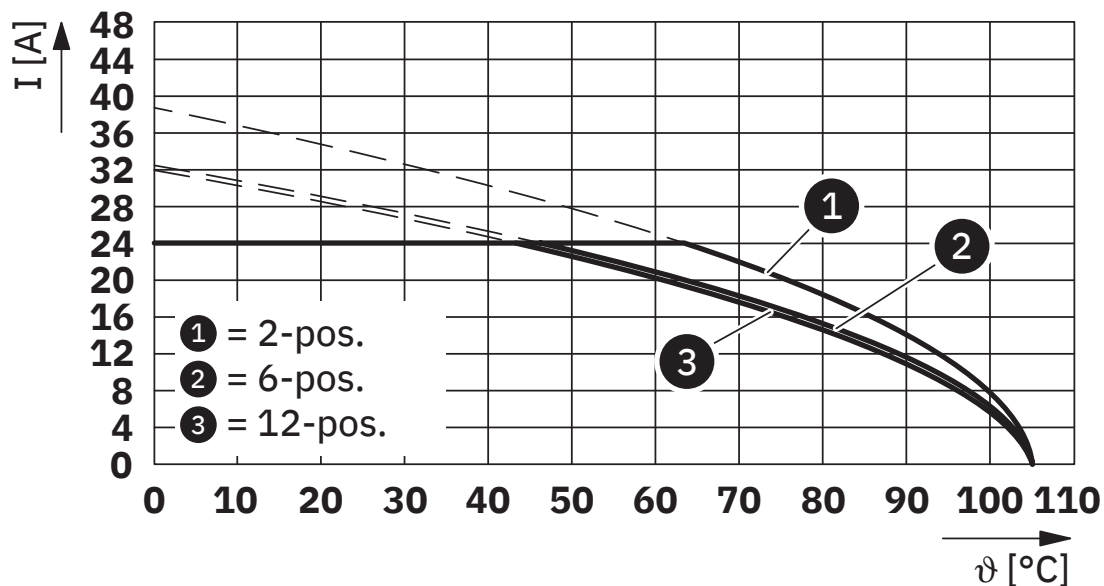
|                                         |                                                     |
|-----------------------------------------|-----------------------------------------------------|
| Ambient temperature (operation)         | -40 °C ... 105 °C (dependent on the derating curve) |
| Ambient 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 |
|-------------------|---------------------|

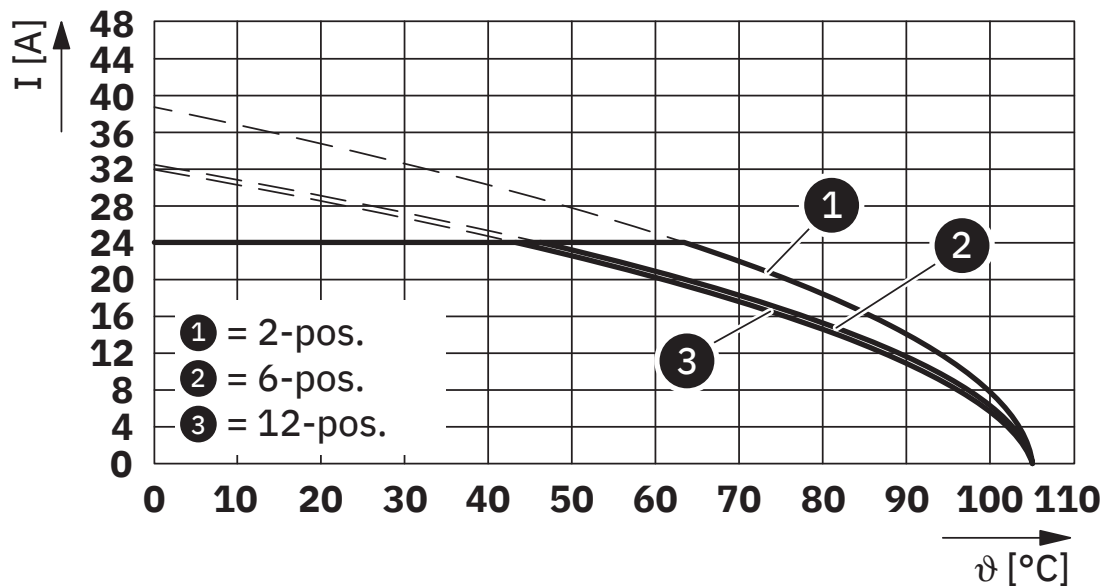
## Drawings

Diagram

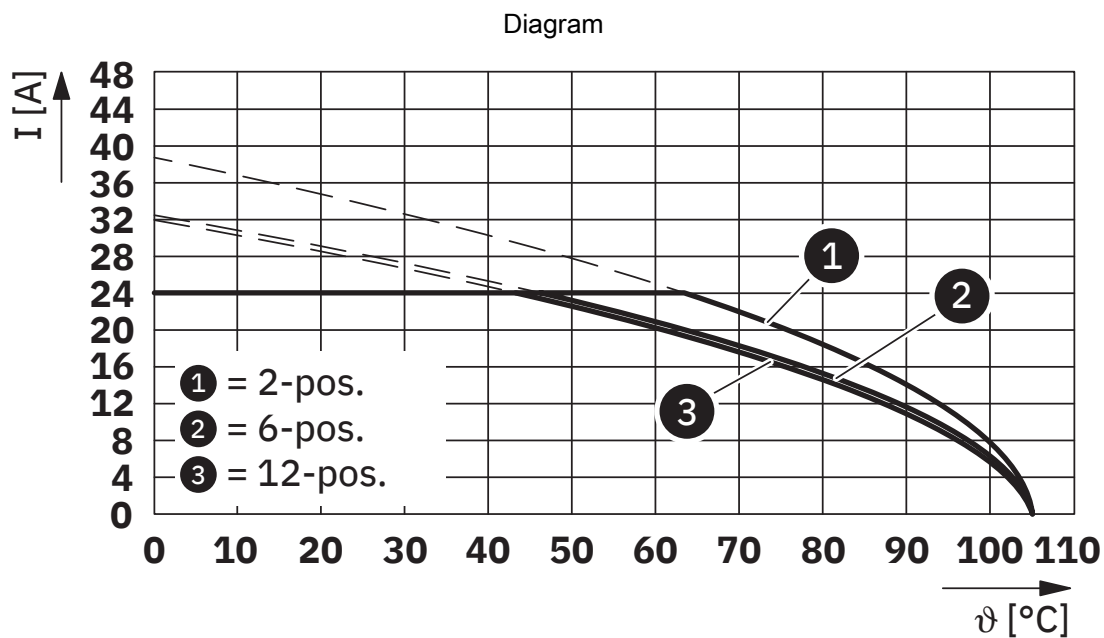


Type: SPC 4/...-ST-6,35 with PCV 4/...-G-6,35 P... THR

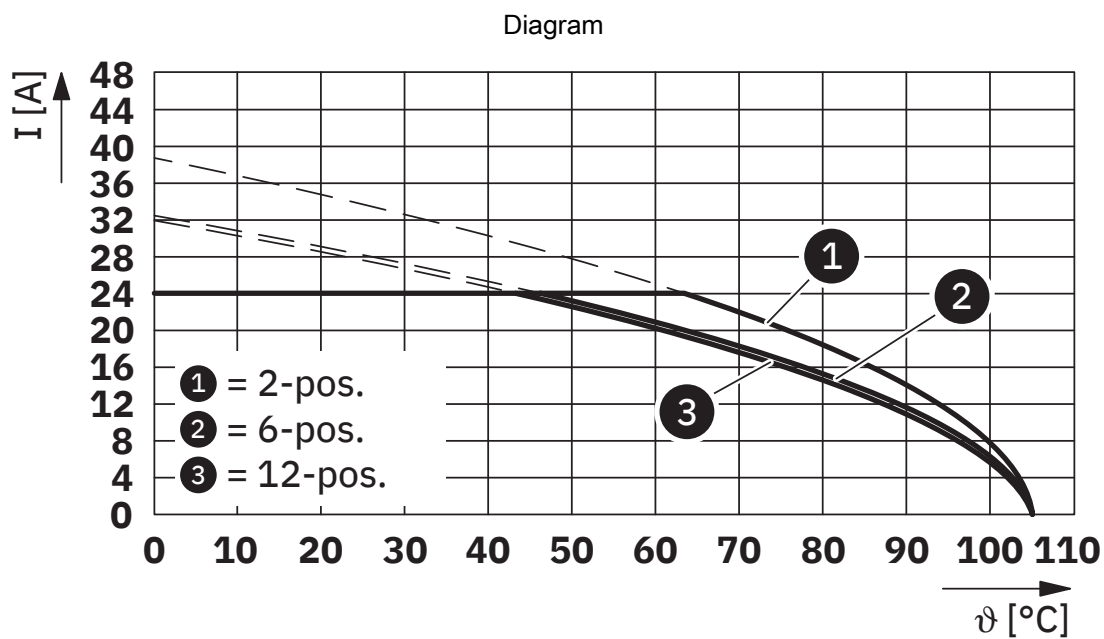
Diagram



Type: SPC 4/...-STL...-6,35 with PCV 4/...-G-6,35 P... THR



Type: SPC 4/...-STTL-6,35 with PCV 4/...-G-6,35 P... THR



Type: SPC 4/...-STL...-SH-6,35 with PCV 4/...-G-6,35 P... THR

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## Approvals

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| UL Recognized                |                                |                                |                   |                               |
|------------------------------|--------------------------------|--------------------------------|-------------------|-------------------------------|
| Approval ID: E60425-20240415 |                                |                                |                   |                               |
|                              | Nominal voltage U <sub>N</sub> | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |
| F                            |                                |                                |                   |                               |
|                              | 600 V                          | 23 A                           | -                 | -                             |

| cULus Recognized             |                                |                                |                   |                               |
|------------------------------|--------------------------------|--------------------------------|-------------------|-------------------------------|
| Approval ID: E60425-20240415 |                                |                                |                   |                               |
|                              | Nominal voltage U <sub>N</sub> | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |
| B                            |                                |                                |                   |                               |
|                              | 300 V                          | 23 A                           | -                 | -                             |
| C                            |                                |                                |                   |                               |
|                              | 300 V                          | 23 A                           | -                 | -                             |
| D                            |                                |                                |                   |                               |
|                              | 600 V                          | 5 A                            | -                 | -                             |



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## Classifications

### ECLASS

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

### ETIM

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

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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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