

# PCV 4/ 2-G-6,35 P26 THR - PCB header



1271657

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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: 2, 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                          | 1271657                        |
| Packing unit                         | 50 pc                          |
| Minimum order quantity               | 50 pc                          |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | AA04                           |
| Product key                          | AADTBC                         |
| GTIN                                 | 4063151461997                  |
| Weight per piece (including packing) | 4.162 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       | 2                     |
| 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 m $\Omega$ |
| 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 $\mu$ m - 5 $\mu$ m Sn)   |
| Metal surface contact area (middle layer) | Nickel (1.3 $\mu$ m - 3 $\mu$ m Ni)  |
| Metal surface soldering area (top layer)  | Tin (3 $\mu$ m - 5 $\mu$ m Sn)   |

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|   |                           |
|---|---------------------------|
| Metal surface soldering area (middle layer) | Nickel (1.3 µm - 3 µm Ni) |
|---|---------------------------|

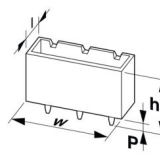
## Material data - housing

|   |              |
|---|--------------|
| 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]             | 15.65 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

|                                     |                        |
|-------------------------------------|------------------------|
| Specification                       | IEC 60512-13-2:2006-02 |
| 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

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## 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   |

## Vibration test

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

## Ambient conditions

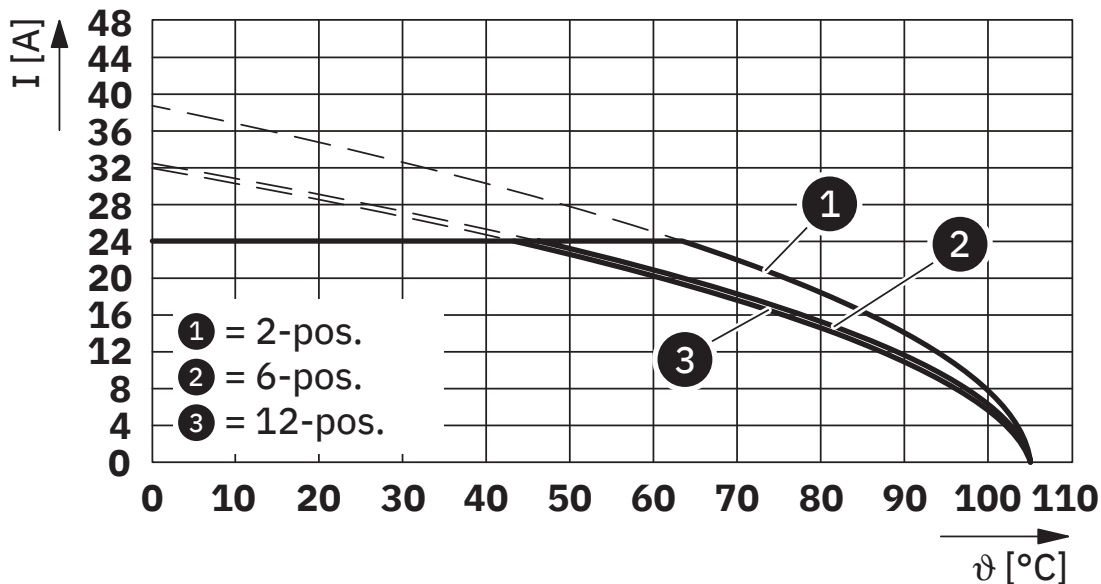
|   |   |
|---|---|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C                                    |
| Relative humidity (storage/transport)   | 30 % ... 70 %                                       |
| Ambient temperature (assembly)          | -5 °C ... 100 °C                                    |
| Ambient temperature (operation)         | -40 °C ... 105 °C (dependent on the derating curve) |

## Packaging specifications

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

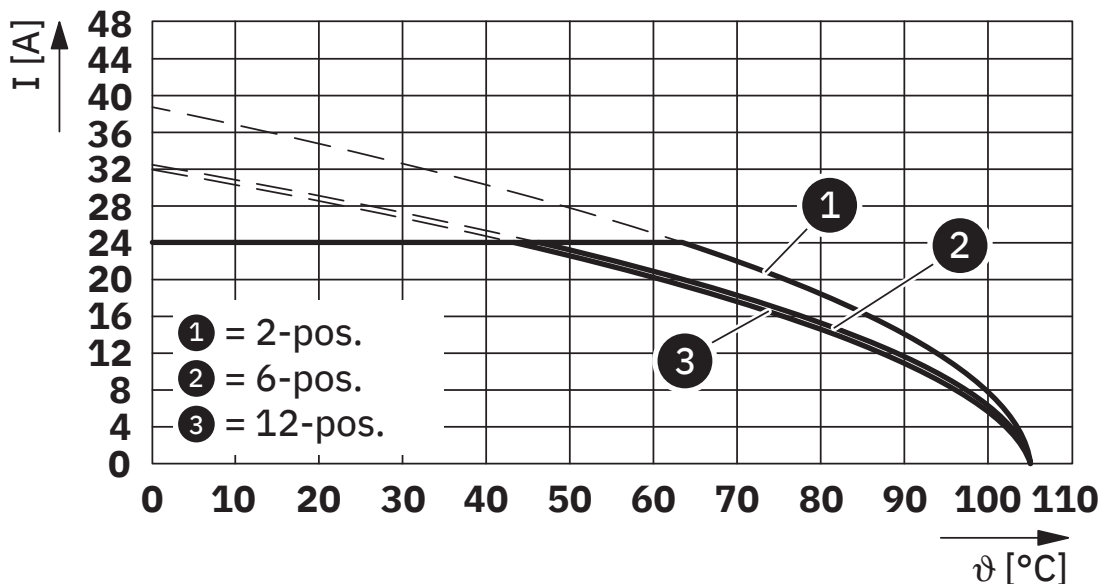
Drawings

Diagram



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

Diagram

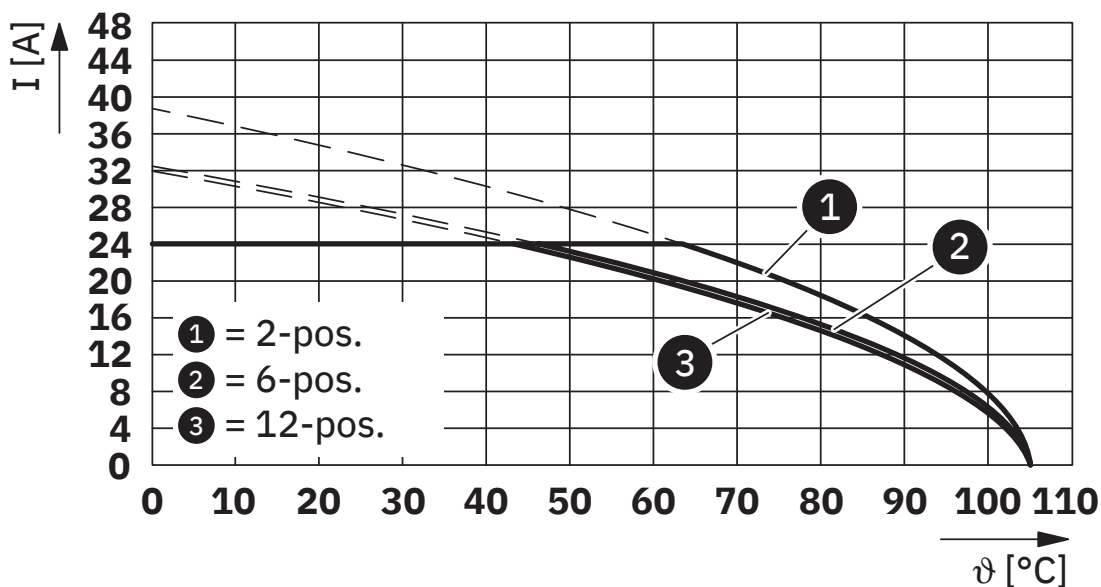


Type: SPC 4/...-STL...-6,35 with PCV 4/...-G-6,35 P... THR

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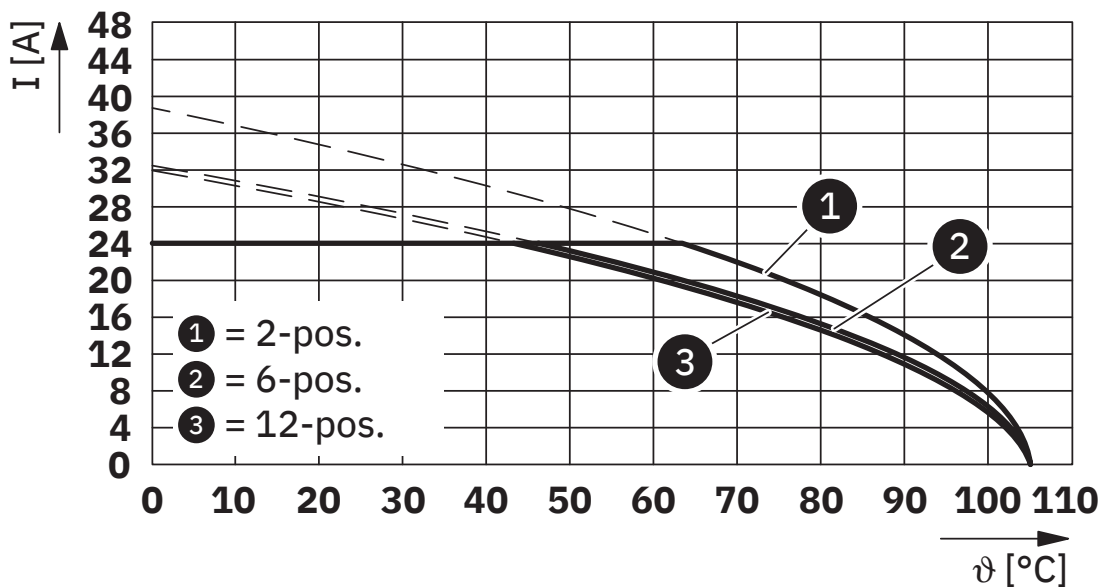
<https://www.phoenixcontact.com/us/products/1271657>

Diagram



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

Diagram



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

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1271657>

|  <b>UL Recognized</b><br>Approval ID: E60425-20240415 |                       |                       |                   |                      |
|--|-----------------------|-----------------------|-------------------|----------------------|
|  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
| F  | 600 V                 | 23 A                  | -                 | -                    |

|  <b>cULus Recognized</b><br>Approval ID: E60425-20240415 |                       |                       |                   |                      |
|---|-----------------------|-----------------------|-------------------|----------------------|
|   | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
| B   | 300 V                 | 23 A                  | -                 | -                    |
| C   | 300 V                 | 23 A                  | -                 | -                    |
| D   | 600 V                 | 5 A                   | -                 | -                    |

|  <b>VDE Zeichengenehmigung</b><br>Approval ID: 40061144 |                       |                       |                   |                      |
|--|-----------------------|-----------------------|-------------------|----------------------|
|  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
| keine  | 1000 V                | 24 A                  | -                 | -                    |

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## Classifications

### ECLASS

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

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | 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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