

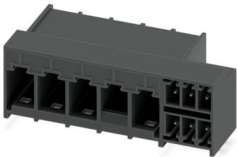
# PCH 6/ 4+6-GL4-7,62 P26THR - PCB header



1192642

<https://www.phoenixcontact.com/pc/products/1192642>

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PCB hybrid header, nominal cross section: 6 mm<sup>2</sup>, color: black, nominal current: 41 A, 8 A, rated voltage (III/2): 630 V, contact surface: Tin, contact connection type: Pin, number of rows: 1, number of positions: 10, product range: PCH 6/..+6-GL-THR, pitch: 7.62 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 6 hybrid, Pin connector pattern alignment: Standard, locking: Snap-in locking, mounting: Self-locking flange, type of packaging: packed in cardboard

## Your advantages

- Designed for integration into the SMT soldering process
- Intuitive locking mechanism prevents accidental disconnection
- 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                          | 1192642                        |
| Packing unit                         | 50 pc                          |
| Minimum order quantity               | 50 pc                          |
| Note                                 | Made to order (non-returnable) |
| Product key                          | AADTDH                         |
| GTIN                                 | 4063151245153                  |
| Weight per piece (including packing) | 16.6 g                         |
| Weight per piece (excluding packing) | 13.327 g                       |
| Customs tariff number                | 85366930                       |
| Country of origin                    | CN                             |

# PCH 6/ 4+6-GL4-7,62 P26THR - PCB header



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## Technical data

### Product properties

|                           |                       |
|---------------------------|-----------------------|
| Product line              | COMBICON Connectors L |
| Product type              | PCB hybrid header     |
| Product family            | PCH 6/..+6-GL-THR     |
| Number of positions       | 10                    |
| Pitch                     | 7.62 mm               |
| Number of rows            | 1                     |
|                           | 2                     |
| Mounting flange           | Self-locking flange   |
| Pin layout                | Linear pinning        |
| Solder pins per potential | 3                     |

### Electrical properties

|                             |        |
|-----------------------------|--------|
| Nominal current $I_N$       | 41 A   |
| Nominal voltage $U_N$       | 630 V  |
| Degree of pollution         | 3      |
| Contact resistance          | 0.7 mΩ |
| Rated voltage (III/3)       | 630 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 | THR soldering  |
| Pin layout    | Linear pinning |

### 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 - 6 μm Sn)                                                                |
| Metal surface contact area (middle layer) | Nickel (1.3 - 3 μm Ni)                                                           |

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|                                             |                        |
|---------------------------------------------|------------------------|
| Metal surface soldering area (top layer)    | Tin (3 - 6 µm Sn)      |
| Metal surface soldering area (middle layer) | Nickel (1.3 - 3 µm Ni) |

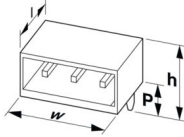
## Material data - housing

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

## 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                 | 7.62 mm                                                                             |
| Width [w]             | 51.06 mm                                                                            |
| Height [h]            | 19 mm                                                                               |
| Length [l]            | 28.2 mm                                                                             |
| Installed height      | 16.4 mm                                                                             |
| Solder pin length [P] | 2.6 mm                                                                              |
| Pin dimensions        | 1 x 1.2 mm                                                                          |

## PCB design

|               |        |
|---------------|--------|
| Hole diameter | 1.7 mm |
|---------------|--------|

## Mechanical tests

### Conductor connection

|               |                     |
|---------------|---------------------|
| Specification | IEC 60999-1:1999-11 |
| Result        | Test passed         |

### Test for conductor damage and slackening

|               |                     |
|---------------|---------------------|
| Specification | IEC 60999-1:1999-11 |
| Result        | Test passed         |

### Test for conductor damage and slackening

|               |                     |
|---------------|---------------------|
| Specification | IEC 60999-1:1999-11 |
| Result        | Test passed         |

### Repeated connection and disconnection

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|               |                     |
|---------------|---------------------|
| Specification | IEC 60999-1:1999-11 |
| Result        | Test passed         |

## Pull-out test

|                                                                                |                                          |
|--------------------------------------------------------------------------------|------------------------------------------|
| Specification                                                                  | IEC 60999-1:1999-11                      |
| Conductor cross section/conductor type/tractive force<br>setpoint/actual value | 0.75 mm <sup>2</sup> / solid / > 30 N    |
|                                                                                | 0.75 mm <sup>2</sup> / flexible / > 30 N |
|                                                                                | 10 mm <sup>2</sup> / solid / > 90 N      |
|                                                                                | 6 mm <sup>2</sup> / flexible / > 80 N    |

## Pull-out test

|                                                                                |                                         |
|--------------------------------------------------------------------------------|-----------------------------------------|
| Specification                                                                  | IEC 60999-1:1999-11                     |
| Conductor cross section/conductor type/tractive force<br>setpoint/actual value | 0.2 mm <sup>2</sup> / solid / > 10 N    |
|                                                                                | 0.2 mm <sup>2</sup> / flexible / > 10 N |
|                                                                                | 1.5 mm <sup>2</sup> / solid / > 40 N    |
|                                                                                | 1.5 mm <sup>2</sup> / flexible / > 40 N |

## Insertion and withdrawal forces

|                                     |             |
|-------------------------------------|-------------|
| Result                              | Test passed |
| No. of cycles                       | 25          |
| Insertion strength per pos. approx. | 5 N         |
| Withdraw strength per pos. approx.  | 3 N         |

## Contact holder in insert

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

## Resistance of inscriptions

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

## Polarization and coding

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

## Visual inspection

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

## Dimension check

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

## Electrical tests

### Thermal test | Test group C

|               |                       |
|---------------|-----------------------|
| Specification | IEC 60512-5-1:2002-02 |
|---------------|-----------------------|

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|                            |   |
|----------------------------|---|
| Tested number of positions | 5 |
|----------------------------|---|

## Insulation resistance

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

## Temperature cycles

|               |                     |
|---------------|---------------------|
| Specification | IEC 60999-1:1999-11 |
| Result        | Test passed         |

## Air clearances and creepage distances | Power

|                                                        |                     |
|--------------------------------------------------------|---------------------|
| Specification                                          | IEC 60664-1:2007-04 |
| 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)                       | 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)                      | 6.3 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               |

## Air clearances and creepage distances | Signal

|                                                        |                     |
|--------------------------------------------------------|---------------------|
| Specification                                          | IEC 60664-1:2007-04 |
| Insulating material group                              | IIIa                |
| Comparative tracking index (IEC 60112)                 | CTI 175             |
| Rated insulation voltage (III/3)                       | 160 V               |
| Rated surge voltage (III/3)                            | 2.5 kV              |
| minimum clearance value - non-homogenous field (III/3) | 1.5 mm              |
| minimum creepage distance (III/3)                      | 2.5 mm              |
| Rated insulation voltage (III/2)                       | 160 V               |
| Rated surge voltage (III/2)                            | 2.5 kV              |
| minimum clearance value - non-homogenous field (III/2) | 1.5 mm              |
| minimum creepage distance (III/2)                      | 2.5 mm              |
| Rated insulation voltage (II/2)                        | 250 V               |
| Rated surge voltage (II/2)                             | 2.5 kV              |
| minimum clearance value - non-homogenous field (II/2)  | 1.5 mm              |
| minimum creepage distance (II/2)                       | 2.5 mm              |

## Environmental and real-life conditions

# PCH 6/ 4+6-GL4-7,62 P26THR - PCB header



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## 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) |
| Sweep speed            | 5g (60.1 Hz ... 150 Hz)     |
| Test duration per axis | 2.5 h                       |

## Durability test

|                                              |                       |
|----------------------------------------------|-----------------------|
| Specification                                | IEC 60512-9-1:2010-03 |
| Impulse withstand voltage at sea level       | 7.3 kV                |
| Contact resistance R <sub>1</sub>            | 0.7 mΩ                |
| Contact resistance R <sub>2</sub>            | 0.6 mΩ                |
| Insertion/withdrawal cycles                  | 25                    |
| Insulation resistance, neighboring positions | > 5 MΩ                |

## 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                                                                   |

## Shocks

|                 |                                   |
|-----------------|-----------------------------------|
| Specification   | IEC 60068-2-27:2008-02            |
| Pulse shape     | Semi-sinusoidal                   |
| Acceleration    | 30g                               |
| Shock duration  | 18 ms                             |
| Test directions | X-, Y- and Z-axis (pos. and neg.) |

## Ambient conditions

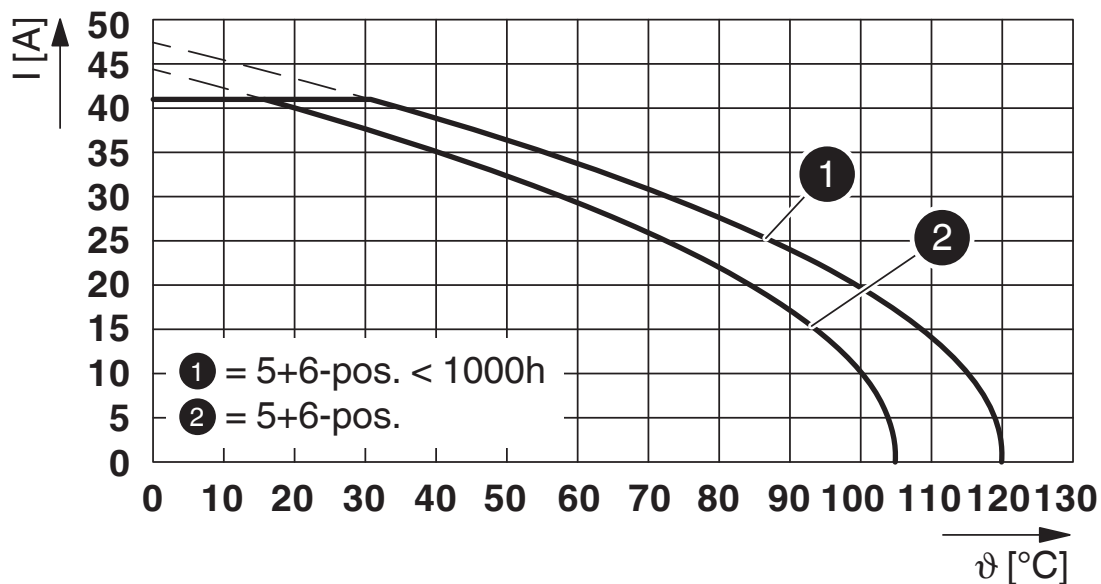
|                                         |                                                     |
|-----------------------------------------|-----------------------------------------------------|
| Ambient temperature (operation)         | -40 °C ... 105 °C (dependent on the derating curve) |
| Ambient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

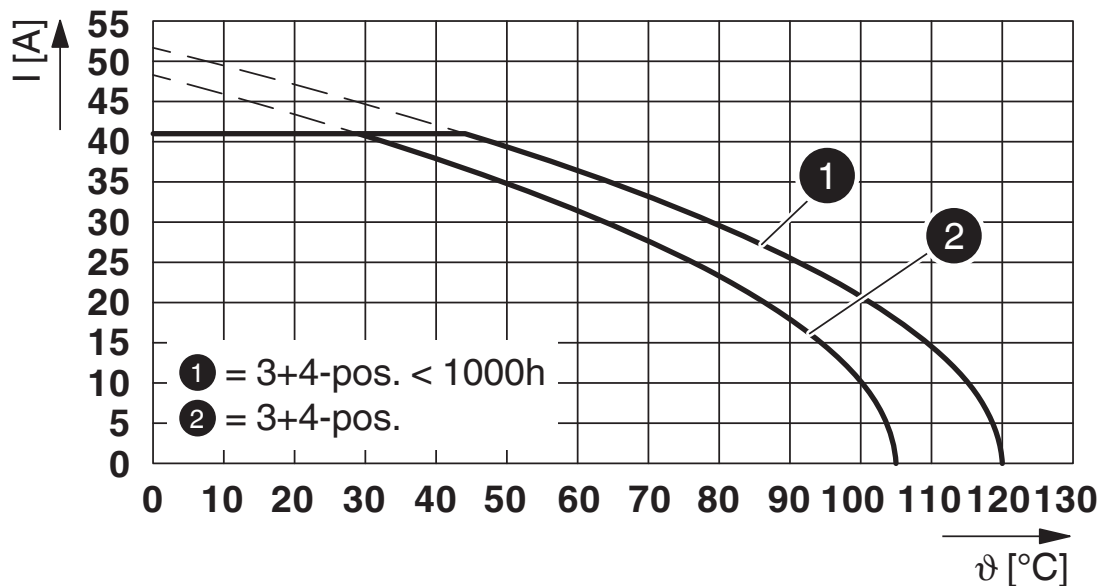
## Drawings

Diagram



Type: LPCH 6/...+...-STL...-7,62 with PCH 6/...+...-GL...-7,62 P...THR

Diagram



Type: LPCH 6/...+...-STL...-7,62 with PCH 6/...+...-GL...-7,62 P...THR

# PCH 6/ 4+6-GL4-7,62 P26THR - PCB header



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/1192642>

|  <b>VDE Zeichengenehmigung</b><br>Approval ID: 40050635 |                       |                       |                   |                             |
|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                                          | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| Power                                                                                                                                    | 630 V                 | 41 A                  | -                 | -                           |
| Signal                                                                                                                                   | 160 V                 | 8 A                   | -                 | -                           |

|  <b>cULus Recognized</b><br>Approval ID: E60425-20010727 |                       |                       |                   |                             |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                                           | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| Use group B                                                                                                                               |                       |                       |                   |                             |
| Power                                                                                                                                     | 300 V                 | 35 A                  | -                 | -                           |
| Signal                                                                                                                                    | 300 V                 | 8 A                   | -                 | -                           |
| Use group C                                                                                                                               |                       |                       |                   |                             |
| Power                                                                                                                                     | 300 V                 | 35 A                  | -                 | -                           |
| Use group F                                                                                                                               |                       |                       |                   |                             |
| Power                                                                                                                                     | 600 V                 | 35 A                  | -                 | -                           |
| Signal                                                                                                                                    | 160 V                 | 8 A                   | -                 | -                           |

# PCH 6/ 4+6-GL4-7,62 P26THR - PCB header



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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27460301 |
| ECLASS-12.0 | 27460301 |
| ECLASS-13.0 | 27460301 |

### ETIM

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

### UNSPSC

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

# PCH 6/ 4+6-GL4-7,62 P26THR - PCB header



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## Environmental product compliance

|            |                                                         |
|------------|---------------------------------------------------------|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

# PCH 6/ 4+6-GL4-7,62 P26THR - PCB header



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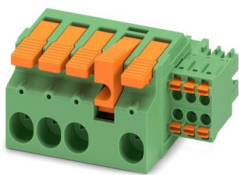
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## Accessories

### LPCH 6/ 4+6-STL4-7,62 - PCB hybrid connector

1716989

<https://www.phoenixcontact.com/pc/products/1716989>



PCB hybrid connector, nominal cross section: 6 mm<sup>2</sup>, color: green, nominal current: 41 A, 8 A, rated voltage (III/2): 1000 V, contact surface: Tin, contact connection type: Socket, number of potentials: 10, number of rows: 1, number of positions: 10, number of connections: 10, product range: LPCH 6/..+6-STL, pitch: 7.62 mm, connection method: Lever Push-in connection, conductor/PCB connection direction: 0 °, plug-in system: COMBICON PC 6 hybrid, locking: Snap-in locking, mounting: Self-locking flange, type of packaging: packed in cardboard

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