

# PT 1,5/ 2-PVH-3,5 - PCB connector



1984015

<https://www.phoenixcontact.com/ca/products/1984015>

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PCB connector, nominal cross section: 1.5 mm<sup>2</sup>, color: green, nominal current: 8 A, rated voltage (III/2): 200 V, contact surface: Tin, contact connection type: Socket, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: PT 1,5/-PVH, pitch: 3.5 mm, connection method: Screw connection with wire protector, screw head form: H1L Slotted Phillips recess, conductor/PCB connection direction: 0 °, plug-in system: COMBICON PST 1,0, locking: without, mounting: without, type of packaging: packed in cardboard

## Your advantages

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- High terminal block capacity thanks to rectangular terminal block space
- Allows connection of two conductors
- Horizontal and vertical connection option for optimum conductor routing
- The latching on the side enables various numbers of positions to be combined

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 1984015             |
| Packing unit                         | 250 pc              |
| Minimum order quantity               | 250 pc              |
| Sales key                            | AA02                |
| Product key                          | AABAIC              |
| Catalog page                         | Page 423 (C-1-2013) |
| GTIN                                 | 4017918946012       |
| Weight per piece (including packing) | 1.543 g             |
| Weight per piece (excluding packing) | 1.422 g             |
| Customs tariff number                | 85366990            |
| Country of origin                    | CN                  |

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## Technical data

### Product properties

|                       |                       |
|-----------------------|-----------------------|
| Product type          | PCB connector         |
| Product family        | PT 1,5/...-PVH        |
| Product line          | COMBICON Connectors S |
| Type                  | Plug for pin strip    |
| Number of positions   | 2                     |
| Pitch                 | 3.5 mm                |
| Number of connections | 2                     |
| Number of rows        | 1                     |
| Number of potentials  | 2                     |
| Mounting flange       | without               |

### Electrical properties

|                             |        |
|-----------------------------|--------|
| Nominal current $I_N$       | 8 A    |
| Nominal voltage $U_N$       | 200 V  |
| Degree of pollution         | 3      |
| Contact resistance          | 1.6 mΩ |
| Rated voltage (III/3)       | 160 V  |
| Rated surge voltage (III/3) | 2.5 kV |
| Rated voltage (III/2)       | 200 V  |
| Rated surge voltage (III/2) | 2.5 kV |
| Rated voltage (II/2)        | 400 V  |
| Rated surge voltage (II/2)  | 2.5 kV |

### Connection data

#### Connection technology

|                         |                     |
|-------------------------|---------------------|
| Type                    | Plug for pin strip  |
| Connector system        | COMBICON PST 1,0    |
| Nominal cross section   | 1.5 mm <sup>2</sup> |
| Contact connection type | Socket              |

#### Interlock

|                 |         |
|-----------------|---------|
| Locking type    | without |
| Mounting flange | without |

#### Conductor connection

|                                                                      |                                               |
|----------------------------------------------------------------------|-----------------------------------------------|
| Connection method                                                    | Screw connection with wire protector          |
| Conductor/PCB connection direction                                   | 0 °                                           |
| Conductor cross section rigid                                        | 0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>   |
| Conductor cross section flexible                                     | 0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>   |
| Conductor cross section AWG                                          | 26 ... 16                                     |
| Conductor cross section, flexible, with ferrule, with plastic sleeve | 0.25 mm <sup>2</sup> ... 0.75 mm <sup>2</sup> |

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|                                                |                          |
|------------------------------------------------|--------------------------|
| 2 conductors with same cross section, solid    | 0.2 mm² ... 0.34 mm²     |
| 2 conductors with same cross section, flexible | 0.2 mm² ... 0.5 mm²      |
| Cylindrical gauge a x b / diameter             | 2.4 mm x 1.5 mm / 1.9 mm |
| Stripping length                               | 5 mm                     |
| Tightening torque                              | 0.22 Nm ... 0.25 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                  | hot-dip tin-plated                                                               |
| Metal surface terminal point (top layer) | Tin (4 - 8 µm Sn)                                                                |
| Metal surface contact area (top layer)   | Tin (4 - 8 µm Sn)                                                                |

### Material data - housing

|                                                                   |              |
|-------------------------------------------------------------------|--------------|
| Color (Housing)                                                   | green (6021) |
| Insulating material                                               | PA           |
| Insulating material group                                         | I            |
| CTI according to IEC 60112                                        | 600          |
| 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       |

## Dimensions

|                     |                                                                                      |
|---------------------|--------------------------------------------------------------------------------------|
| Dimensional drawing |  |
| Pitch               | 3.5 mm                                                                               |
| Width [w]           | 7 mm                                                                                 |
| Height [h]          | 11 mm                                                                                |
| Length [l]          | 14.9 mm                                                                              |

## Mounting

|                       |                               |
|-----------------------|-------------------------------|
| Drive form screw head | Slotted Phillips recess (H1L) |
|-----------------------|-------------------------------|

## Mechanical tests

### Test for conductor damage and slackening

|               |                     |
|---------------|---------------------|
| Specification | IEC 60999-1:1999-11 |
|---------------|---------------------|

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|        |             |
|--------|-------------|
| Result | Test passed |
|--------|-------------|

## Pull-out test

|                                                                             |                                         |
|-----------------------------------------------------------------------------|-----------------------------------------|
| Specification                                                               | IEC 60999-1:1999-11                     |
| Conductor cross section/conductor type/tractive force 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                       | 10          |
| Insertion strength per pos. approx. | 4 N         |
| Withdraw strength per pos. approx.  | 4 N         |

## Torque test

|               |                     |
|---------------|---------------------|
| Specification | IEC 60999-1:1999-11 |
|---------------|---------------------|

## Resistance of inscriptions

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

## Polarization and coding

|               |                                    |
|---------------|------------------------------------|
| Specification | IEC 60512-7:1993-08 (Polarization) |
| 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           |

## 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                       |

### Durability test

|                                        |                     |
|----------------------------------------|---------------------|
| Specification                          | IEC 60512-5:1992-08 |
| Impulse withstand voltage at sea level | 2.5 kV              |
| Contact resistance R <sub>1</sub>      | 1.6 mΩ              |

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|                             |                |
|-----------------------------|----------------|
| Contact resistance $R_2$    | 1.7 m $\Omega$ |
| Insertion/withdrawal cycles | 10             |

## 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 | 2 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                                    |

## Electrical tests

### Thermal test | Test group C

|                            |                       |
|----------------------------|-----------------------|
| Specification              | IEC 60512-5-1:2002-02 |
| Tested number of positions | 16                    |

### Insulation resistance

|                                              |                           |
|----------------------------------------------|---------------------------|
| Specification                                | IEC 60512-3-1:2002-02     |
| Insulation resistance, neighboring positions | 10 <sup>12</sup> $\Omega$ |

### Air clearances and creepage distances |

|                                                        |                     |
|--------------------------------------------------------|---------------------|
| Specification                                          | IEC 60664-1:2007-04 |
| Insulating material group                              | I                   |
| Comparative tracking index (IEC 60112)                 | CTI 600             |
| 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 mm                |
| Rated insulation voltage (III/2)                       | 200 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)                      | 1 mm                |
| Rated insulation voltage (II/2)                        | 400 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 mm                |

## Packaging specifications

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

# PT 1,5/ 2-PVH-3,5 - PCB connector

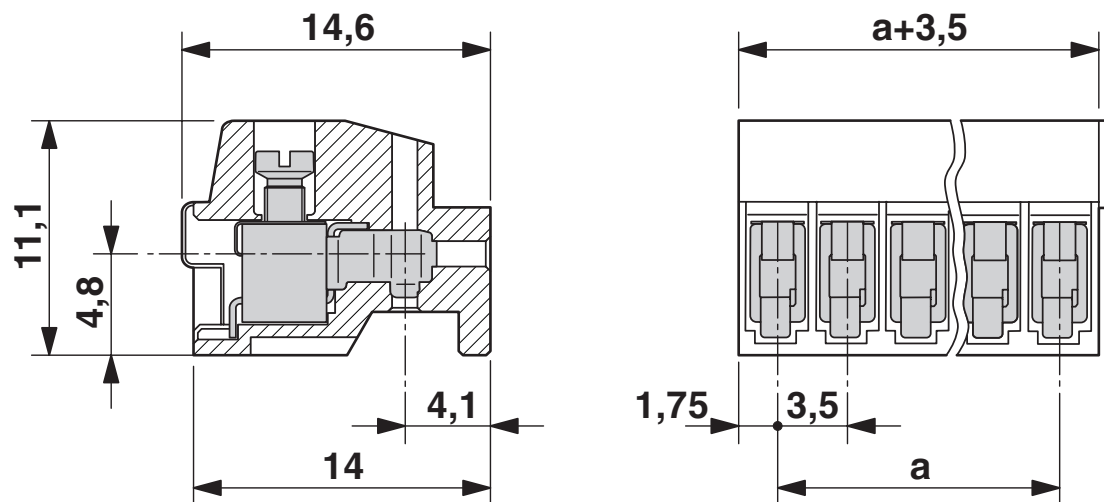
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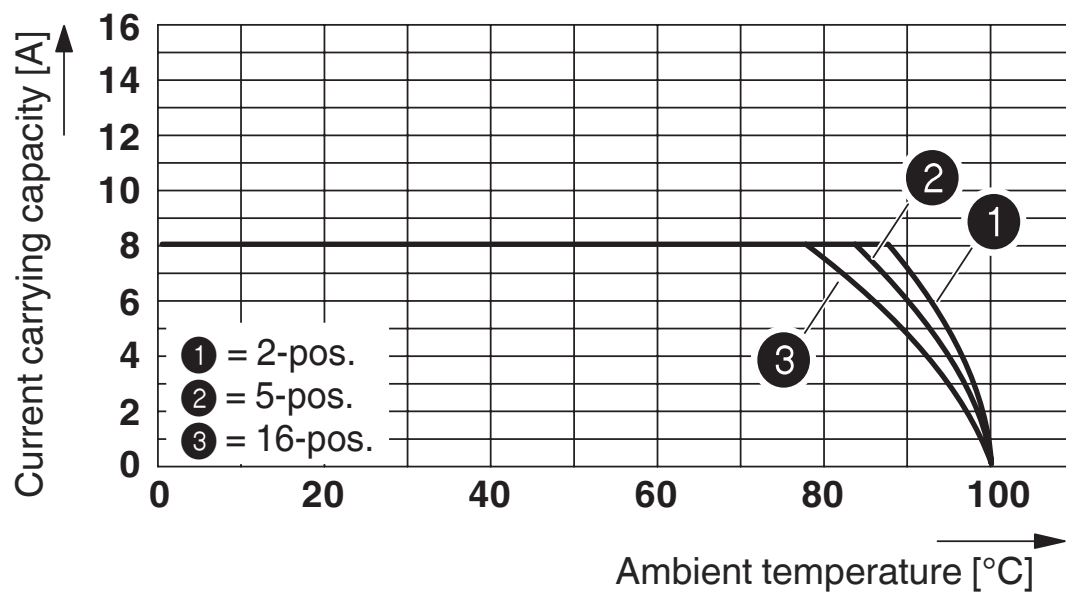


## Drawings

Dimensional drawing



Diagram



Type: PT 1,5/...-PVH-3,5 with PST 1,0/...-3,5

# PT 1,5/ 2-PVH-3,5 - PCB connector



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/ca/products/1984015>

|  <b>cULus Recognized</b><br>Approval ID: E60425-20030211 |                       |                       |                   |                             |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                                           | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| Use group B                                                                                                                               |                       |                       |                   |                             |
|                                                                                                                                           | 300 V                 | 10 A                  | 26 - 16           | -                           |
| Use group D                                                                                                                               |                       |                       |                   |                             |
|                                                                                                                                           | 300 V                 | 10 A                  | 26 - 16           | -                           |

|  <b>VDE Zeichengenehmigung</b><br>Approval ID: 40055514 |                       |                       |                   |                             |
|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                                          | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                                                                          | 320 V                 | 8 A                   | -                 | 0.2 - 1.5                   |

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27460202 |
| ECLASS-12.0 | 27460202 |
| ECLASS-13.0 | 27460202 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC002638 |
|----------|----------|

### UNSPSC

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

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## Environmental product compliance

|                                         |                                                                                                                                                                                                                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EU RoHS                                 |                                                                                                                                                                                                                                   |
| Fulfills EU RoHS substance requirements | Yes                                                                                                                                                                                                                               |
| Exemption                               | 6(c)                                                                                                                                                                                                                              |
| 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.)     | Lead(CAS: 7439-92-1)                                                                                                                                                                                                              |
| SCIP                                    | fd7602ae-4a61-4ce0-baa2-56616d6e8dee                                                                                                                                                                                              |

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