

# PTA 1,5/ 3-5,0 RD - PCB terminal block



1019323

<https://www.phoenixcontact.com/us/products/1019323>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



The figure shows a 10-position version of the product

Printed circuit board terminal, nominal current: 17.5 A, rated voltage (III/2): 400 V, nominal cross section: 1.5 mm<sup>2</sup>, number of potentials: 3, number of rows: 1, number of positions per row: 3, product range: PTA 1,5, pitch: 5 mm, connection method: Screw connection with wire protector, screw head form: H1L Slotted Phillips recess, mounting: Wave soldering, conductor/PCB connection direction: 45 °, color: red, Pin layout: Linear front pinning, Solder pin [P]: 3.5 mm, number of solder pins per potential: 1, 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
- Angled connection enables multi-row arrangement on the PCB
- The latching on the side enables various numbers of positions to be combined

## Commercial data

|                                      |   |
|--------------------------------------|---|
| Item number                          | 1019323   |
| Packing unit                         | 250 pc  |
| Minimum order quantity               | 1,000 pc  |
| Note                                 | Made to order (non-returnable)                                      |
| Product key                          | AALFMF  |
| GTIN                                 | 4055626505442   |
| Weight per piece (including packing) | 3.161 g   |
| Weight per piece (excluding packing) | 3.067 g   |
| Country of origin                    | Information on the country of origin is provided with the delivery. |

# PTA 1,5/ 3-5,0 RD - PCB terminal block



1019323

<https://www.phoenixcontact.com/us/products/1019323>

## Technical data

### Product properties

|                           |                                |
|---------------------------|--------------------------------|
| Product type              | Printed circuit board terminal |
| Product family            | PTA 1,5                        |
| Product line              | COMBICON Terminals S           |
| Number of positions       | 3                              |
| Pitch                     | 5 mm                           |
| Number of connections     | 3                              |
| Number of rows            | 1                              |
| Number of potentials      | 3                              |
| Pin layout                | Linear front pinning           |
| Solder pins per potential | 1                              |

### Electrical properties

#### Properties

|                             |        |
|-----------------------------|--------|
| Nominal current $I_N$       | 17.5 A |
| Nominal voltage $U_N$       | 400 V  |
| Rated voltage (III/3)       | 250 V  |
| Rated surge voltage (III/3) | 4 kV   |
| Rated voltage (III/2)       | 400 V  |
| Rated surge voltage (III/2) | 4 kV   |
| Rated voltage (II/2)        | 630 V  |
| Rated surge voltage (II/2)  | 4 kV   |

### Connection data

#### Connection technology

|                       |                      |
|-----------------------|----------------------|
| Type                  | PC termination block |
| Nominal cross section | 1.5 mm <sup>2</sup>  |

#### Conductor connection

|   |   |
|---|---|
| Connection method   | Screw connection with wire protector          |
| Conductor cross-section rigid   | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>  |
| Conductor cross-section flexible  | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>  |
| Conductor cross-section AWG   | 26 ... 14                                     |
| Conductor cross-section, flexible, with ferrule, without plastic sleeve                   | 0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>  |
| Conductor cross-section, flexible, with ferrule, with plastic sleeve                      | 0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>  |
| 2 conductors with same cross section, rigid   | 0.14 mm <sup>2</sup> ... 1 mm <sup>2</sup>    |
| 2 conductors with same cross section, flexible  | 0.14 mm <sup>2</sup> ... 0.75 mm <sup>2</sup> |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve       | 0.25 mm <sup>2</sup> ... 0.34 mm <sup>2</sup> |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.25 mm <sup>2</sup> ... 0.75 mm <sup>2</sup> |

# PTA 1,5/ 3-5,0 RD - PCB terminal block

1019323

<https://www.phoenixcontact.com/us/products/1019323>

|                       |                               |
|-----------------------|-------------------------------|
| Stripping length      | 5 mm                          |
| Drive form screw head | Slotted Phillips recess (H1L) |
| Tightening torque     | 0.35 Nm ... 0.4 Nm            |

## Mounting

|               |                      |
|---------------|----------------------|
| Mounting type | Wave soldering       |
| Pin layout    | Linear front pinning |

## Material specifications

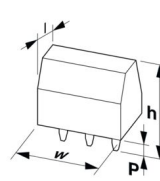
### Material data - contact

|   |  |
|---|--|
| 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 terminal point (top layer)    | Tin (3 $\mu\text{m}$ - 12 $\mu\text{m}$ Sn)                                      |
| Metal surface terminal point (middle layer) | Nickel (1.5 $\mu\text{m}$ - 4 $\mu\text{m}$ Ni)                                  |
| Metal surface soldering area (top layer)    | Tin (3 $\mu\text{m}$ - 12 $\mu\text{m}$ Sn)                                      |
| Metal surface soldering area (middle layer) | Nickel (1.5 $\mu\text{m}$ - 4 $\mu\text{m}$ Ni)                                  |

### Material data - housing

|   |            |
|---|------------|
| Color (Housing)   | red (3001) |
| 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                 | 5 mm   |
| Width [w]             | 15 mm  |
| Height [h]            | 15.4 mm  |
| Length [l]            | 12.8 mm  |
| Installed height      | 11.9 mm  |
| Solder pin length [P] | 3.5 mm   |
| Pin dimensions        | ø 1 mm   |

# PTA 1,5/ 3-5,0 RD - PCB terminal block



1019323

<https://www.phoenixcontact.com/us/products/1019323>

## PCB design

|               |        |
|---------------|--------|
| Pin spacing   | 5 mm   |
| Hole diameter | 1.3 mm |

## Mechanical tests

### Test for conductor damage and slackening

|               |                     |
|---------------|---------------------|
| 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 setpoint/actual value | 0.14 mm <sup>2</sup> / solid / > 10 N    |
|   | 0.14 mm <sup>2</sup> / flexible / > 10 N |
|   | 2.5 mm <sup>2</sup> / solid / > 50 N     |
|   | 2.5 mm <sup>2</sup> / flexible / > 50 N  |

## Electrical tests

### Temperature-rise test

|                                   |  |
|-----------------------------------|--|
| Specification                     | IEC 60947-7-4:2019-01  |
| Requirement temperature-rise test | The sum of ambient temperature and temperature rise of the PCB terminal block shall not exceed the upper limiting temperature. |

### Short-time withstand current

|               |                       |
|---------------|-----------------------|
| Specification | IEC 60947-7-4:2019-01 |
|---------------|-----------------------|

### Insulation resistance

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

### Air clearances and creepage distances |

|  |   |
|--|---|
| Specification  | IEC 60947-1:2007-06 + A1:2010-12 + A2:2014-09         |
| Insulating material group                              | I   |
| Comparative tracking index (IEC 60112)                 | CTI 600   |
| 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)                      | 3.2 mm  |
| Note on connection cross section                       | With connected conductor 2.5 mm <sup>2</sup> (solid). |
| Rated insulation voltage (III/2)                       | 400 V   |
| Rated surge voltage (III/2)                            | 4 kV  |
| minimum clearance value - non-homogenous field (III/2) | 3 mm  |
| minimum creepage distance (III/2)                      | 3 mm  |
| Rated insulation voltage (II/2)                        | 630 V   |
| Rated surge voltage (II/2)                             | 4 kV  |

1019323

<https://www.phoenixcontact.com/us/products/1019323>

|   |        |
|---|--------|
| minimum clearance value - non-homogenous field (II/2) | 3 mm   |
| minimum creepage distance (II/2)                      | 3.2 mm |

## Environmental and real-life conditions

### 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           | 5g (60.1 Hz ... 150 Hz)     |
| Test duration per axis | 2.5 h                       |
| Test directions        | X-, Y- and Z-axis           |

### Glow-wire test

|                  |                        |
|------------------|------------------------|
| Specification    | IEC 60695-2-10:2013-04 |
| Temperature      | 850 °C                 |
| Time of exposure | 5 s                    |

### Aging

|               |                       |
|---------------|-----------------------|
| Specification | IEC 60947-7-4:2019-01 |
|---------------|-----------------------|

### Ambient conditions

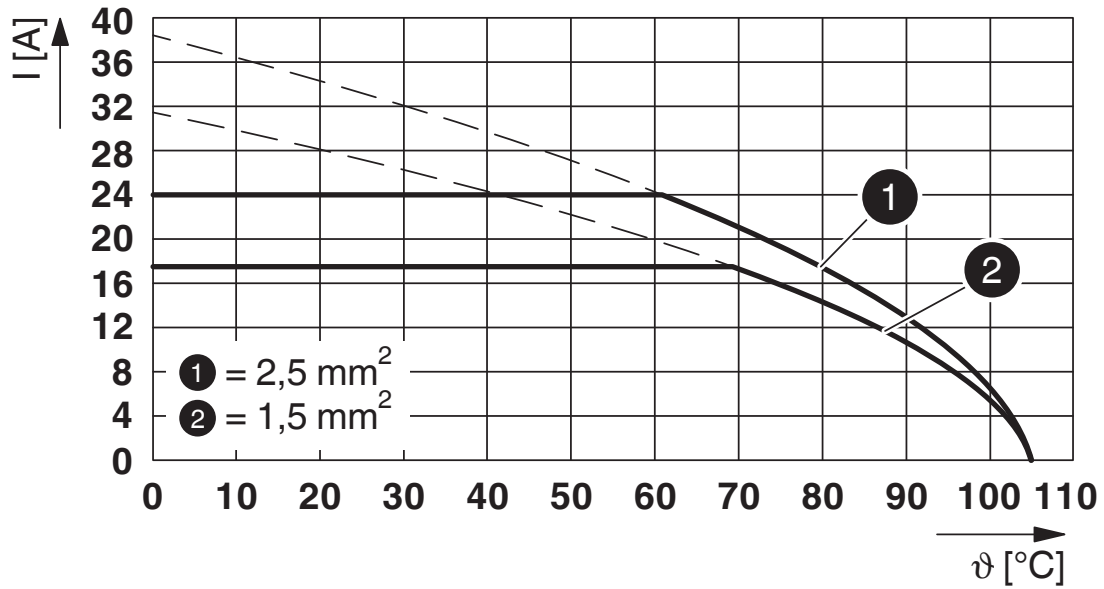
|   |   |
|---|---|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C  |
| Relative humidity (storage/transport)   | 30 % ... 70 %   |
| Ambient temperature (assembly)          | -5 °C ... 100 °C  |
| Ambient temperature (operation)         | -40 °C ... 105 °C (Depending on the current carrying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

## Packaging specifications

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

Drawings

Diagram



Type: PTA 1,5/...-5,0

# PTA 1,5/ 3-5,0 RD - PCB terminal block



1019323

<https://www.phoenixcontact.com/us/products/1019323>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27460101 |
| ECLASS-15.0 | 27460101 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC002643 |
|----------|----------|

# PTA 1,5/ 3-5,0 RD - PCB terminal block



1019323

<https://www.phoenixcontact.com/us/products/1019323>

## 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) |
|-------------------------------------|----------------------|

Phoenix Contact 2026 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)