

# PTSPLO-6/1-2X2 2,1 R32 - PCB terminal block



1705081

<https://www.phoenixcontact.com/gb/products/1705081>

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PCB terminal block for tin-plated flexible cables, e.g., type PV 1-F, nominal current: 41 A, number of positions: 1, connection method: spring-cage connection, mounting: THT/THR, for user information for through-hole reflow technology, go to: [combicon.com](http://combicon.com)

## Your advantages

- Able to perform without insulating elements: ideal for easy integration into the SMT soldering process
- Tool-free spring principle enables time-saving connection of conductors with ferrules and tinned conductors
- Defined contact force ensures that contact remains stable over the long term

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 1705081                        |
| Packing unit                         | 220 pc                         |
| Minimum order quantity               | 220 pc                         |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | AANCBA                         |
| Product key                          | AANCBA                         |
| Catalog page                         | Page 475 (C-1-2013)            |
| GTIN                                 | 4046356752831                  |
| Weight per piece (including packing) | 3.4 g                          |
| Weight per piece (excluding packing) | 1.849 g                        |
| Customs tariff number                | 85369010                       |
| Country of origin                    | DE                             |

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## Technical data

### Product properties

|                           |                                            |
|---------------------------|--------------------------------------------|
| Product type              | Printed circuit board terminal             |
| Product family            | PTSPL 6/..                                 |
| Product line              | COMBICON Terminals L                       |
| Type                      | Circular conductor connection, single-pos. |
| Number of positions       | 1                                          |
| Pitch                     | 0 mm                                       |
| Number of connections     | 1                                          |
| Number of rows            | 1                                          |
| Number of potentials      | 1                                          |
| Pin layout                | Linear pinning                             |
| Solder pins per potential | 4                                          |

### Electrical properties

#### Properties

|                       |      |
|-----------------------|------|
| Nominal current $I_N$ | 41 A |
|-----------------------|------|

### Connection data

#### Connection technology

|                       |                                            |
|-----------------------|--------------------------------------------|
| Type                  | Circular conductor connection, single-pos. |
| Nominal cross section | 6 mm <sup>2</sup>                          |

#### Conductor connection

|                                                                       |                                                                                                                           |
|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Connection method                                                     | Push-in spring connection                                                                                                 |
| Conductor cross section flexible                                      | 2.5 mm <sup>2</sup> ... 6 mm <sup>2</sup> (Conductors with tin-plated litz wires are to be used, for example type PV1-F.) |
| Conductor cross section flexible, with ferrule without plastic sleeve | 2.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>                                                                                 |
| Stripping length                                                      | 12 mm ... 15 mm                                                                                                           |

### Mounting

|               |                                |
|---------------|--------------------------------|
| Mounting type | THR soldering / wave soldering |
| Pin layout    | Linear 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                  | hot-dip tin-plated                                                               |
| Metal surface terminal point (top layer) | Tin (4 - 8 µm Sn)                                                                |

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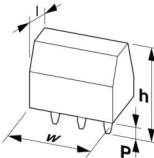
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|                                          |                   |
|------------------------------------------|-------------------|
| Metal surface soldering area (top layer) | Tin (4 - 8 µm Sn) |
|------------------------------------------|-------------------|

## Material data - housing

|                 |                  |
|-----------------|------------------|
| Color (Housing) | copper color (I) |
|-----------------|------------------|

## Dimensions

|                       |                                                                                    |
|-----------------------|------------------------------------------------------------------------------------|
| Dimensional drawing   |  |
| Pitch                 | 0 mm                                                                               |
| Width [w]             | 8.7 mm                                                                             |
| Height [h]            | 12.9 mm                                                                            |
| Length [l]            | 14.95 mm                                                                           |
| Installed height      | 10.8 mm                                                                            |
| Solder pin length [P] | 2.1 mm                                                                             |
| Pin dimensions        | 0.6 x 1 mm                                                                         |

## PCB design

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

### Pull-out test

|                                                                             |                                                                                              |
|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Specification                                                               | IEC 60999-1:1999-11                                                                          |
| Conductor cross section/conductor type/tractive force setpoint/actual value | 2.5 mm <sup>2</sup> / stranded PV1-F / > 50 N<br>6 mm <sup>2</sup> / stranded PV1-F / > 80 N |

## Electrical tests

### Temperature-rise test

|                                   |                                |
|-----------------------------------|--------------------------------|
| Specification                     | 60947-7-4/FDIS © IEC 2012      |
| Requirement temperature-rise test | Increase in temperature ≤ 45 K |

### Temperature cycles

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

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## 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           |

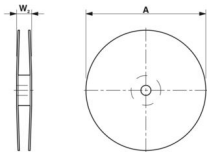
### Shocks

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

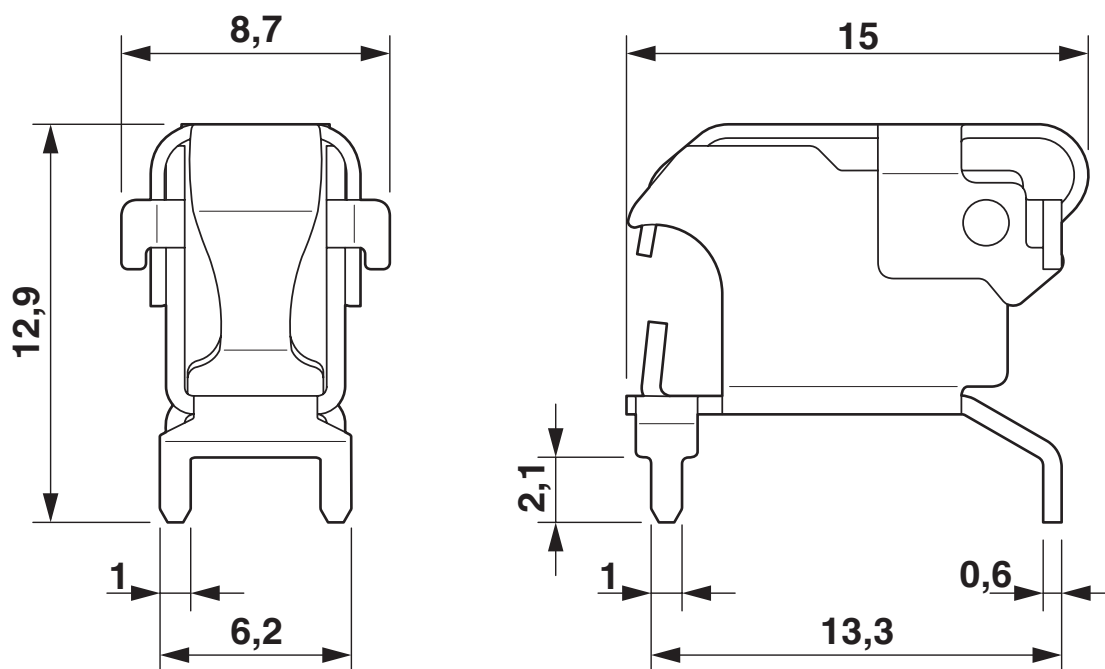
|                                         |                                                                               |
|-----------------------------------------|-------------------------------------------------------------------------------|
| Ambient temperature (operation)         | -40 °C ... 100 °C (Depending on the current carrying capacity/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

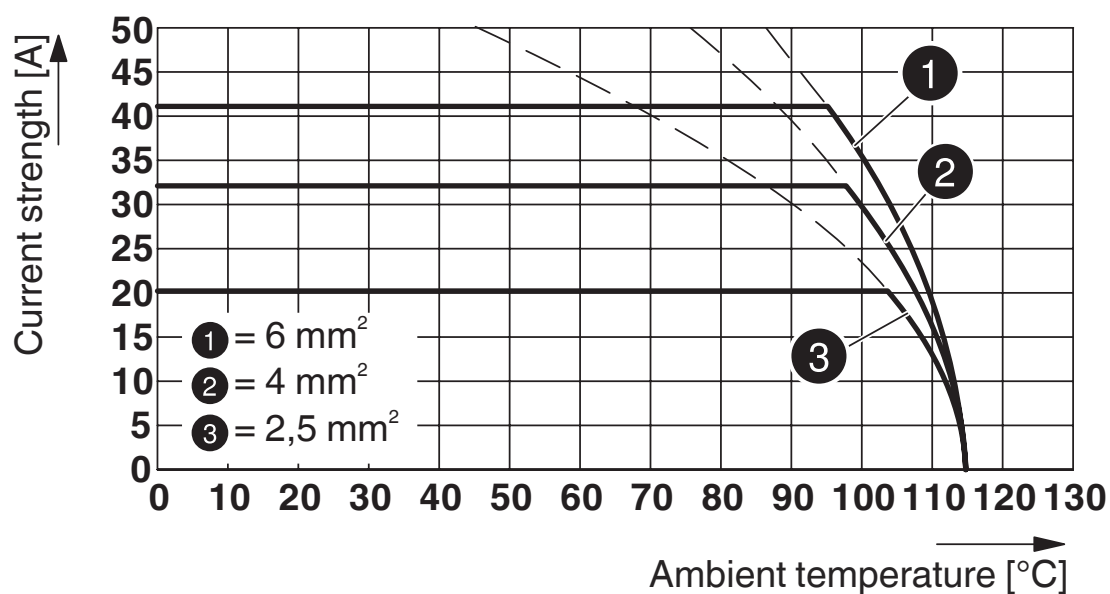
|                             |                                                                                      |
|-----------------------------|--------------------------------------------------------------------------------------|
| Dimensional drawing         |  |
| Type of packaging           | 32 mm wide tape                                                                      |
| [W] tape width              | 32 mm                                                                                |
| [W2] coil overall dimension | ≤ 38.4 mm                                                                            |
| [A] coil diameter           | ≤ 330 mm                                                                             |
| Outer packaging type        | Transparent-Bag                                                                      |
| ESD level                   | (D) electrostatically conductive                                                     |
| Specification               | DIN EN 61340-5-1 (VDE 0300-5-1): 2008-07                                             |

## Drawings

Dimensional drawing



Diagram



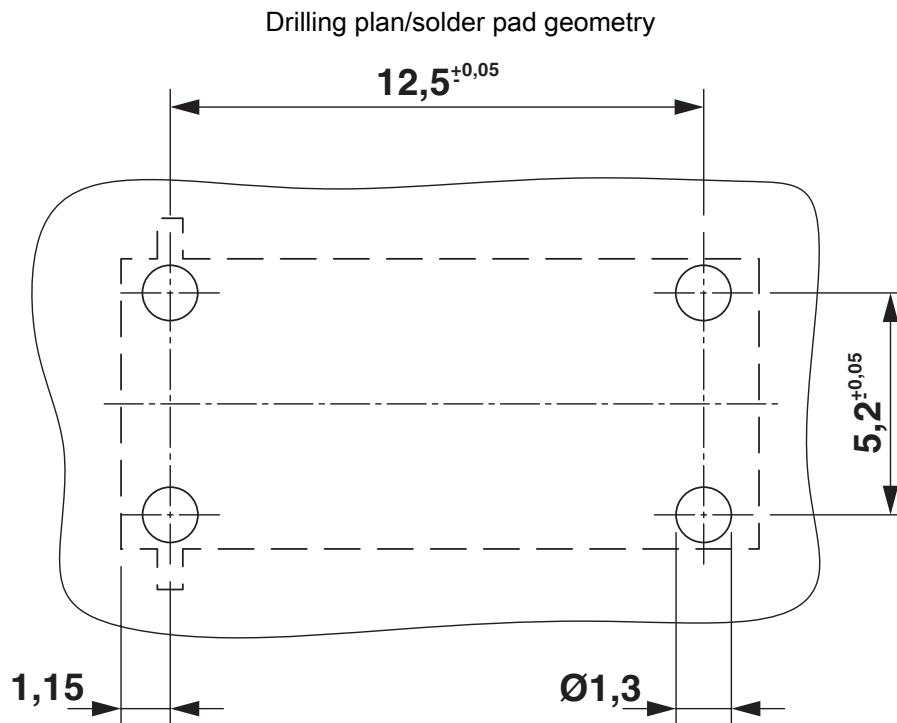
Type: PTSPL(O)-6/1-2X2 ... R32

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/1705081>

|                                                                                                                                                        |                       |                       |                   |                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
| <div> <b>cULus Recognized</b><br/>Approval ID: E365246-20141111</div> |                       |                       |                   |                             |
|                                                                                                                                                        | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                                                                                        | -                     | 30 A                  | 14 - 10           | -                           |

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## Classifications

### ECLASS

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

### ETIM

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

### UNSPSC

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

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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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