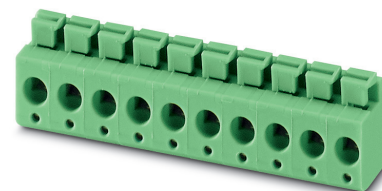


Order No.: 1792931

Type: PTS 1,5/ 9-5,0-H

PCB terminal block, Push-in spring connection



The figure shows the 10-position version

1 Main features



- | | | | |
|---------------------------|---------------------------|------------------------|---------------------|
| • No. of pos. | 9 | • Nominal current | 16 A |
| • Conductor cross section | 1.5 mm ² | • Nominal voltage | 400 V |
| • Color | green (6021) | • Connection direction | 0 ° |
| • Pitch | 5 mm | • Type of packaging | packed in cardboard |
| • Connection method | Push-in spring connection | | |

2 Your advantages

- ✓ Time saving push-in connection, tools not required
- ✓ Defined contact force ensures that contact remains stable over the long term
- ✓ Finger-operated release button for very convenient operation
- ✓ Quick and convenient testing using integrated test option
- ✓ Largest possible clamping space in a small component size



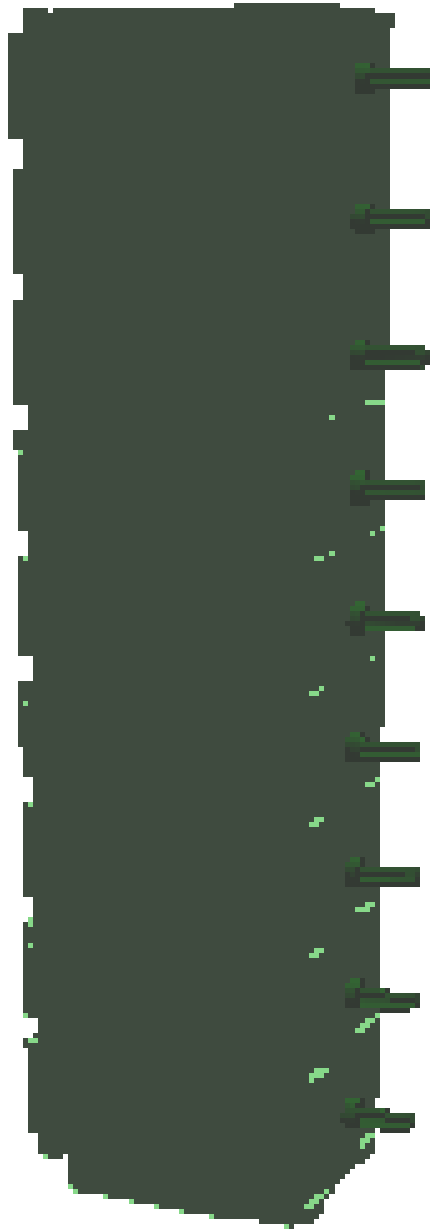
Make sure you always use the latest documentation.
It can be downloaded at: phoenixcontact.net/product/1792931

3 Table of contents

| | | |
|----|---|----|
| 1 | Main features..... | 1 |
| 2 | Your advantages | 1 |
| 3 | Table of contents | 2 |
| 4 | 3D model in PDF can be activated (Acrobat Reader only)..... | 3 |
| 5 | General Technical Data | 4 |
| 6 | Material properties..... | 4 |
| 7 | Dimensions..... | 6 |
| 8 | Series drawing..... | 7 |
| 9 | Application..... | 8 |
| 10 | Packaging information | 8 |
| 11 | Mechanical tests..... | 9 |
| 12 | Electrical tests | 10 |
| 13 | Current carrying capacity/derating curves | 12 |
| 14 | Environmental and durability tests | 13 |
| 15 | Approvals / Certificates..... | 14 |
| 16 | Commercial Data..... | 15 |

1792931 PTS 1,5/ 9-5,0-H

4 3D model in PDF can be activated (Acrobat Reader only)



1792931 PTS 1,5/ 9-5,0-H**5 General Technical Data****5.1 item properties**

| | |
|--|---------------------------|
| Order No. | 1792931 |
| Type | PTS 1,5/ 9-5,0-H |
| Product type | PCB terminal block |
| Range of articles | PTS 1,5/...-H |
| Pitch | 5 mm |
| Number of positions | 9 |
| Number of levels | 1 |
| Number of connections | 9 |
| Number of potentials | 9 |
| Connection method | Push-in spring connection |
| Mounting type | Wave soldering |
| Connection direction of the conductor to the PCB | 0 ° |
| Pin layout | Linear pinning |
| Solder pins per potential | 1 |
| Type | PC termination block |

5.2 Connection capacity

| | |
|---|--|
| Conductor cross section, rigid | 0.14 mm ² ... 2.5 mm ² |
| Conductor cross section, flexible | 0.14 mm ² ... 2.5 mm ² |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.25 mm ² ... 1.5 mm ² |
| Conductor cross section flexible, with ferrule with plastic sleeve | 0.25 mm ² ... 1.5 mm ² |
| Stripping length | 8 mm |

5.3 Connection capacity AWG

| | |
|-----------------------------|-----------|
| Conductor cross section AWG | 26 ... 14 |
|-----------------------------|-----------|

6 Material properties**6.1 Material of metal parts**

| | |
|-------------------------|---|
| Note | WEEE/RoHS-compliant, whisker-free acc. to IEC 60068-2-82/JEDEC JESD 201 |
| Contact material | Cu alloy |
| Terminal point surface | , Tin (4 - 8 μm Sn) |
| Soldering area surface | , Tin (4 - 8 μm Sn) |
| Surface characteristics | hot-dip tin-plated |

6.2 Material of plastic parts

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

1792931 PTS 1,5/ 9-5,0-H

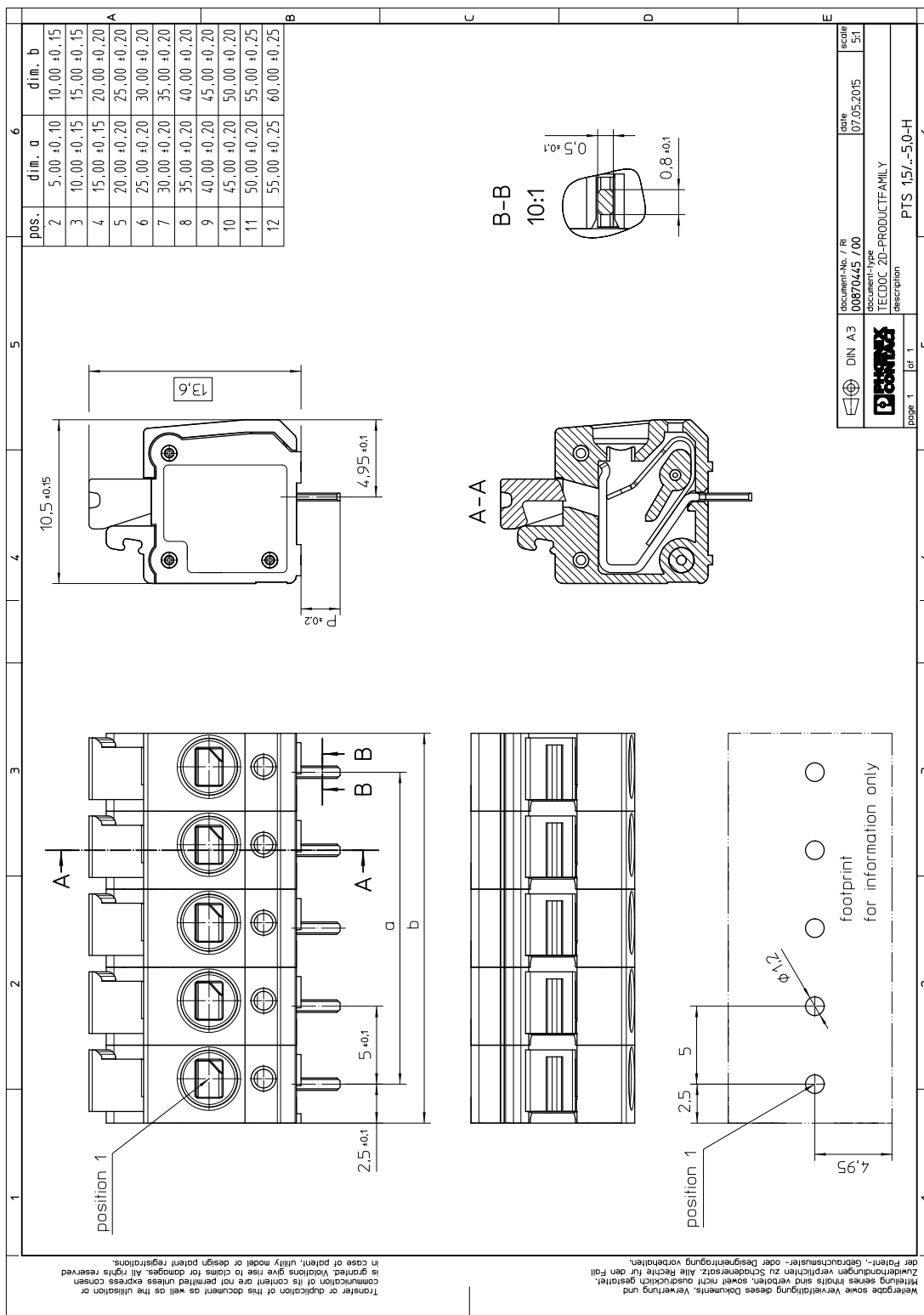
| | Housing |
|---|---------|
| Flammability rating according to UL 94 | V0 |
| Glow wire flammability index GWFI according to EN 60695-2-12 | 850 |
| Glow wire ignition temperature GWIT according to EN 60695-2-13 | 775 |
| Temperature for the ball pressure test according to EN 60695-10-2 | 125 °C |

1792931 PTS 1,5/ 9-5,0-H**7 Dimensions****7.1 Dimensions for the product**

| | |
|-----------------------------|---------|
| Length | 10.5 mm |
| Width | 45 mm |
| Height (without solder pin) | 13.6 mm |
| Total height | 16.1 mm |
| Solder pin [P] | 2.5 mm |

1792931 PTS 1,5/ 9-5,0-H

8 Series drawing



| | | | |
|--------|--|---------------------------------|----------------|
| DIN A3 | document-No. / Ri 00870445 / 00 | date 07/05/2015 | scale 1:5:1 |
| TECDOC | document-type TECDOC 2D-PRODUCTFAMILY | | |
| page 1 | of 1 | description PTS 1,5/...5,0-H | |

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1792931 PTS 1,5/ 9-5,0-H**8.1 Dimensions for PCB design**

| | |
|----------------|---------------|
| Hole diameter | 1.2 mm |
| Pin dimensions | 0.83 x 0.5 mm |

9 Application**10 Packaging information**

| | |
|--------------------|---------------------|
| Type of packaging | packed in cardboard |
| Pieces per package | 100 |

10.1 Temperature limit values

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

1792931 PTS 1,5/ 9-5,0-H**11 Mechanical tests****11.1 Pull-out test**

| | |
|--|--|
| Specification | IEC 60999-1:1999-11 |
| Result | Test passed |
| Conductor cross section/conductor type/tractive force actual value | 0.14 mm ² / solid / > 10 N |
| Conductor cross section/conductor type/tractive force actual value | 0.14 mm ² / flexible / > 10 N |
| Conductor cross section/conductor type/tractive force actual value | 2.5 mm ² / solid / > 50 N |
| Conductor cross section/conductor type/tractive force actual value | 2.5 mm ² / flexible / > 50 N |

11.2 Check for damage to conductor or loosening

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

1792931 PTS 1,5/ 9-5,0-H**12 Electrical tests****12.1 Electrical data**

| | |
|---|----------------------------|
| Rated current / conductor cross section | 16 A / 1.5 mm ² |
| Rated insulation voltage (III/2) | 400 V |
| Rated surge voltage (III/2) | 4 kV |
| Contact resistance | 0.75 mΩ |
| Degree of pollution | 2 |

12.2 Air and creepage distances

| | | | |
|---|---|-------|--------|
| Component | PCB terminal block | | |
| Specification | IEC 60947-1:2007-06 + A1:2010-12 + A2:2014-09 | | |
| Mains type | unearthed mains | | |
| Insulating material group | I | | |
| Comparative tracking index (IEC 60112:2003-01) | CTI 600 | | |
| Rated insulation voltage | 250 V | 400 V | 630 V |
| Rated surge voltage | 4 kV | 4 kV | 4 kV |
| Degree of pollution | 3 | 2 | 2 |
| Overvoltage category | III | III | II |
| Minimum clearance case A (inhomogeneous field) | 3 mm | 3 mm | 3 mm |
| Minimum value of the creepage path requirement in acc. with table | 3.2 mm | 3 mm | 3.2 mm |

12.3 Short-time withstand current test

| | |
|--|----------------------------|
| Specification | IEC 60947-7-4:2013-08 |
| Result | Test passed |
| Conductor cross section/short-time current | 2.5 mm ² / 48 A |

12.4 Aging test (climatic impact and corrosion testing)

| | |
|--|-------------------------------|
| Specification | IEC 60947-7-4:2013-08 |
| Result | Test passed |
| Contact resistance R ₁ | 0.75 mΩ / 2.5 mm ² |
| Test sequence 1: low temperature storage | -40 °C / 2 h |
| Test sequence 2: heat storage | 168 h/100°C |
| Test sequence 3: noxious gas storage (ISO 6988) | KFW 0.2 S/1 cycle |
| Contact resistance R ₂ | 0.93 mΩ / 2.5 mm ² |
| Rated impulse voltage at sea level Voltage waveform ≥ (1.2/50 μs) | 4.8 kV |
| Power-frequency withstand voltage Voltage waveform ≥ (50/60 Hz) | 3.1 kV |

12.5 Insulation resistance

1792931 PTS 1,5/ 9-5,0-H

| | |
|---------------|-----------------------|
| Specification | IEC 60512-3-1:2002-02 |
|---------------|-----------------------|

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

| | |
|--|--------|
| Insulation resistance, neighboring positions | > 2 TΩ |
|--|--------|

12.6 Mechanical connection test for the PCB terminal block

| | |
|---------------|-----------------------|
| Specification | IEC 60947-7-4:2013-08 |
|---------------|-----------------------|

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

12.7 Temperature rise test

| | |
|---------------|-----------------------|
| Specification | IEC 60947-7-4:2013-08 |
|---------------|-----------------------|

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

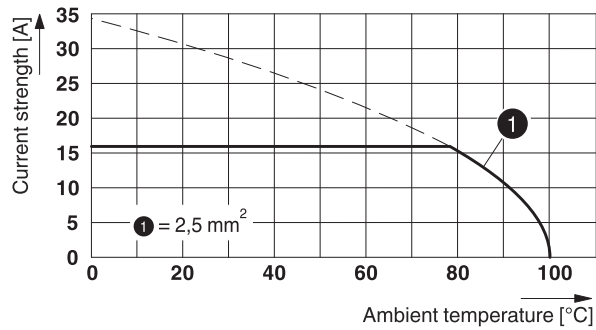
| | |
|-----------------------------------|--|
| Requirement temperature-rise test | The sum of ambient temperature and temperature rise of the PCB terminal block shall not exceed the upper limiting temperature. |
|-----------------------------------|--|

| | |
|---|-------------------------------------|
| Conductor cross section/test current/temperature rise | 2.5 mm ² / 16 A / 22.1 K |
|---|-------------------------------------|

1792931 PTS 1,5/ 9-5,0-H

13 Current carrying capacity/derating curves

| | |
|-------------------------|---|
| Specification | IEC 60947-7-4:2013-08 |
| Note | Representation based on IEC 60512-5-2:2002-02 |
| Reduction factor | 1 |
| Number of positions | 4 |
| Conductor cross section | 1.5 mm ² |

Type: PTS 1,5/ 4-5,0-H**Tested according to DIN EN 60512-5-2:2003-01****Reduction factor = 1****Number of positions: 4**

1792931 PTS 1,5/ 9-5,0-H**14 Environmental and durability tests****14.1 Vibration test**

| | |
|------------------------|--|
| Specification | IEC 60068-2-6:2007-12 |
| Result | Test passed |
| Frequency | 10 - 150 - 10 Hz |
| Sweep speed | 1 octave/min |
| Amplitude | 0.35 mm (10 - 60.1 Hz) |
| Acceleration | 5 g (60.1 - 150 Hz) |
| Test duration per axis | 2.5 h |
| Test directions | X-, Y- and Z-axis |
| Note | The connected conductor loops were guided to the test sample at a distance of approx. 10 cm. |

14.2 Assessment of fire risk (glow wire test)





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

14.3 Shock protection

| | |
|---|---|
| Specification | IEC 60529:1989-11 + AMD 1:1999-11 + AMD 2:2013-08 |
| Back of the hand protection (Ball ø 50) | guaranteed |
| Finger protection (movable test finger) | guaranteed |

1792931 PTS 1,5/ 9-5,0-H

15 Approvals / Certificates

| | | | | |
|--|-------------|-------------|---------------------|----------------------------------|
| IECEE CB Scheme  | Voltage [V] | Current [A] | Cross section [AWG] | Cross section [mm ²] |
| | 400 V | 16 A | - | 0.14 - 2.5 |
| EAC  | | | | |
| VDE Zeichengenehmigung  | Voltage [V] | Current [A] | Cross section [AWG] | Cross section [mm ²] |
| | 400 V | 16 A | - | 0.14 - 2.5 |
| cULus Recognized  | Voltage [V] | Current [A] | Cross section [AWG] | Cross section [mm ²] |
| Usegroup B | | | | |
| Factory wiring | 300 V | 16 A | 26 - 14 | - |
| | 300 V | 15 A | 26 - 14 | - |
| Usegroup D | | | | |
| | 300 V | 10 A | 26 - 14 | - |

1792931 PTS 1,5/ 9-5,0-H**16 Commercial Data**

| | |
|--------------------|--|
| Order No. | 1792931 |
| Type | PTS 1,5/ 9-5,0-H |
| Pieces per package | 100 |
| Net weight | 6.96 g |
| GTIN | 4046356616416 |
| | Information that applies locally, see link on page 1 |
| Country of origin | Information that applies locally, see link on page 1 |