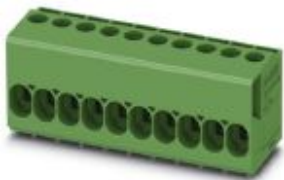


# PCB terminal block - TDPT 2,5/ 7-SC-5,08 - 1017496

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PCB terminal block, nominal current: 24 A, rated voltage (III/2): 400 V, nominal cross section: 2.5 mm<sup>2</sup>, pitch: 5.08 mm, number of positions: 7, connection method: Screw connection with tension sleeve, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Linear double pinning, Solder pin [P]: 3.5 mm


The figure shows a 10-position version of the product

## Your advantages

- Easy to adapt, thanks to their identical size and the same pinning for Push-in spring connections as for screw connections
- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force



## Key Commercial Data

|              |   |
|--------------|---|
| Packing unit | 50 pc   |
| GTIN         | <br>4 055626 501314 |
| GTIN         | 4055626501314   |

## Technical data

### Item properties

|                           |                                      |
|---------------------------|--------------------------------------|
| Brief article description | PCB terminal block                   |
| Range of articles         | TDPT 2,5/...-SC                      |
| Pitch                     | 5.08 mm                              |
| Number of positions       | 7                                    |
| Connection method         | Screw connection with tension sleeve |
| Drive form screw head     | Slotted (L)                          |
| Mounting type             | Wave soldering                       |
| Pin layout                | Linear double pinning                |
| Number of levels          | 1                                    |
| Number of connections     | 7                                    |
| Number of potentials      | 7                                    |

### Electrical parameters

# PCB terminal block - TDPT 2,5/ 7-SC-5,08 - 1017496

## Technical data

### Electrical parameters

|                             |       |
|-----------------------------|-------|
| Nominal current             | 24 A  |
| Nom. voltage                | 400 V |
| Rated voltage               | 320 V |
| Rated voltage (III/2)       | 400 V |
| Rated voltage (II/2)        | 630 V |
| Rated surge voltage (III/3) | 4 kV  |
| Rated surge voltage (III/2) | 4 kV  |
| Rated surge voltage (II/2)  | 4 kV  |

### Connection capacity

|   |  |
|---|--|
| Connection method   | Screw connection with tension sleeve         |
| Conductor cross section solid   | 0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>    |
| Conductor cross section flexible  | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>  |
| Conductor cross section AWG / kcmil   | 24 ... 12                                    |
| Conductor cross section flexible, with ferrule without plastic sleeve                     | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>  |
| Conductor cross section, flexible, with ferrule, with plastic sleeve                      | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>  |
| 2 conductors with same cross section, solid   | 0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>  |
| 2 conductors with same cross section, flexible  | 0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>  |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm <sup>2</sup> ... 0.75 mm <sup>2</sup> |
| Stripping length  | 10 mm  |
| Torque  | 0.5 Nm ... 0.6 Nm                            |

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

### Material data - housing

|   |              |
|---|--------------|
| Housing color   | 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 for the product

|              |          |
|--------------|----------|
| Length [ l ] | 18 mm    |
| Width [ w ]  | 36.36 mm |

# PCB terminal block - TDPT 2,5/ 7-SC-5,08 - 1017496

## Technical data

### Dimensions for the product

|                             |              |
|-----------------------------|--------------|
| Height [ h ]                | 22.5 mm      |
| Pitch                       | 5.08 mm      |
| Height (without solder pin) | 19 mm        |
| Solder pin [P]              | 3.5 mm       |
| Pin spacing                 | 8.7 mm       |
| Pin dimensions              | 0.9 x 0.9 mm |

### Dimensions for PCB design

|               |        |
|---------------|--------|
| Hole diameter | 1.4 mm |
| Pin spacing   | 8.7 mm |

### Packaging information

|                            |                     |
|----------------------------|---------------------|
| Type of packaging          | packed in cardboard |
| Pieces per package         | 50                  |
| Denomination packing units | Pcs.                |

### Ambient conditions

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

### Termination and connection method

|  |                     |
|--|---------------------|
| Test for conductor damage and slackening | IEC 60999-1:1999-11 |
|  | Test passed         |

### Pull-out test

|  |   |
|--|---|
| Pull-out test  | IEC 60999-1:1999-11                     |
|  | Test passed                             |
| Conductor cross section / conductor type / tensile force | 0.2 mm <sup>2</sup> / flexible / > 10 N |
|  | 0.2 mm <sup>2</sup> / solid / > 10 N    |
|  | 2.5 mm <sup>2</sup> / flexible / > 50 N |
|  | 4 mm <sup>2</sup> / solid / > 60 N      |

### Mechanical tests according to standard

|                    |               |
|--------------------|---------------|
| Test specification | IEC 60947-7-4 |
|--------------------|---------------|

### Electrical tests

|                             |                     |
|-----------------------------|---------------------|
| Rated current               | 24 A                |
| Conductor cross section     | 2.5 mm <sup>2</sup> |
| Rated voltage (III/2)       | 400 V               |
| Rated surge voltage (III/2) | 4 kV                |

### Air clearances and creepage distances

|                                   |   |
|-----------------------------------|---|
| Clearances and creepage distances | IEC 60947-1:2007-06 + A1:2010-12 + A2:2014-09 |
| Specification                     | IEC 60947-1:2007-06 + A1:2010-12 + A2:2014-09 |

# PCB terminal block - TDPT 2,5/ 7-SC-5,08 - 1017496

## Technical data

### Air clearances and creepage distances

|   |        |
|---|--------|
| Minimum clearance - inhomogeneous field (III/3) | 3 mm   |
| Minimum clearance - inhomogeneous field (III/2) | 3 mm   |
| Minimum clearance - inhomogeneous field (II/2)  | 3 mm   |
| Minimum creepage distance value (III/3)         | 4 mm   |
| Minimum creepage distance value (III/2)         | 3 mm   |
| Minimum creepage distance value (II/2)          | 3.2 mm |

### 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. |

### Current carrying capacity / derating curves

|                     |   |
|---------------------|---|
| Caption             | Type: TDPT 2,5/...-SC-5,08                    |
| Specification       | IEC 60947-7-4:2013-08                         |
| Number of positions | 4   |
| Reduction factor    | 1   |
| Note                | Representation based on IEC 60512-5-2:2002-02 |

### 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                  |

### Insulation resistance

|  |                       |
|--|-----------------------|
| Specification                                | IEC 60512-3-1:2002-02 |
| Result                                       | Test passed           |
| Insulation resistance, neighboring positions | > 30 TΩ               |

### Glow-wire test

|                  |                        |
|------------------|------------------------|
| Specification    | IEC 60695-2-10:2000-10 |
| Result           | Test passed            |
| Temperature      | 850 °C                 |
| Time of exposure | 5 s                    |

### Alternating climate test

|                  |                   |
|------------------|-------------------|
| Result           | Test passed       |
| Specification    | ISO 6988:1985-02  |
| Corrosive stress | KFW 0.2 S/1 cycle |

# PCB terminal block - TDPT 2,5/ 7-SC-5,08 - 1017496

## Technical data

### Standards and Regulations

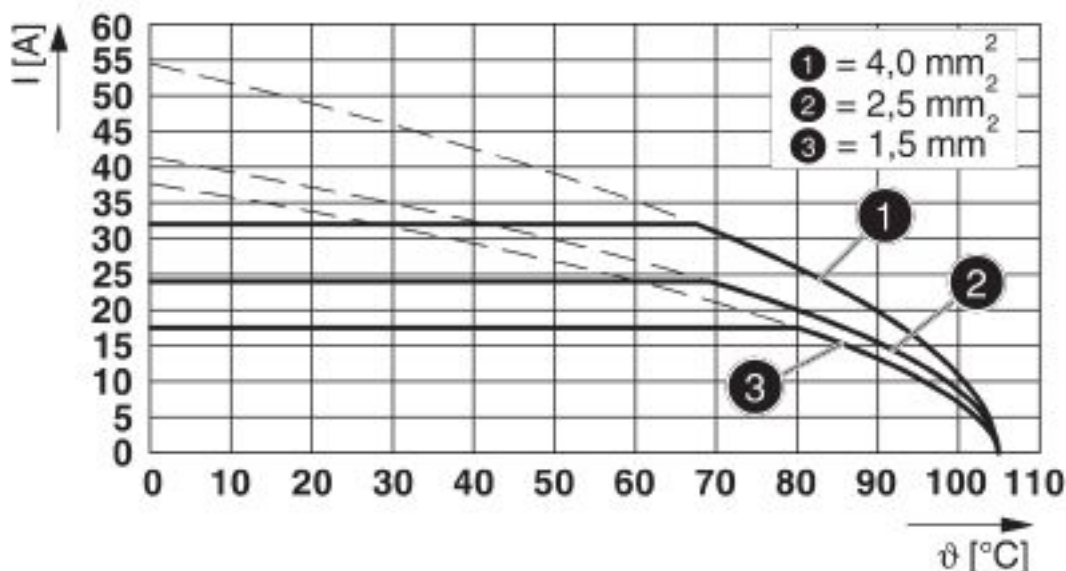
|  |        |
|--|--------|
| Connection in acc. with standard       | EN-VDE |
| Flammability rating according to UL 94 | V0     |

### Environmental Product Compliance

|            |   |
|------------|---|
| China RoHS | Environmentally Friendly Use Period = 50 years  |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

## Drawings

Diagram



Type: TDPT 2,5/...-SC-5,08

## Classifications

eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27440401 |
| eCl@ss 5.1    | 27261100 |
| eCl@ss 6.0    | 27261100 |
| eCl@ss 7.0    | 27440401 |
| eCl@ss 8.0    | 27440401 |
| eCl@ss 9.0    | 27440401 |

ETIM

|          |          |
|----------|----------|
| ETIM 5.0 | EC002643 |
| ETIM 6.0 | EC002643 |

# PCB terminal block - TDPT 2,5/ 7-SC-5,08 - 1017496

## Classifications

### ETIM

|          |          |
|----------|----------|
| ETIM 7.0 | EC002643 |
|----------|----------|

## Approvals

### Approvals

### Approvals

cULus Recognized / VDE Zeichengenehmigung / IECCEB Scheme / EAC

### Ex Approvals

## Approval details

|                            |       |   |                 |
|----------------------------|-------|---|-----------------|
| cULus Recognized           |       | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | E60425-20180122 |
|                            | B     | C   | D               |
| Nominal voltage UN         | 300 V | 150 V   | 300 V           |
| Nominal current IN         | 20 A  | 20 A  | 10 A            |
| mm <sup>2</sup> /AWG/kcmil | 24-12 | 24-12   | 24-12           |

|                            |       |   |          |
|----------------------------|-------|---|----------|
| VDE Zeichengenehmigung     |       | <a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a> | 40049168 |
| Nominal voltage UN         | 400 V |   |          |
| Nominal current IN         | 32 A  |   |          |
| mm <sup>2</sup> /AWG/kcmil | 0.2-4 |   |          |

|               |  |   |           |
|---------------|--|---|-----------|
| IECCEB Scheme |  | <a href="http://www.iecee.org/">http://www.iecee.org/</a> | DE1-61270 |
|---------------|--|---|-----------|

|     |  |         |
|-----|--|---------|
| EAC |  | B.01687 |
|-----|--|---------|

## Accessories

### Accessories

### Screwdriver tools

## PCB terminal block - TDPT 2,5/ 7-SC-5,08 - 1017496

### Accessories

Screwdriver - SZF 1-0,6X3,5 - 1204517



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

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