

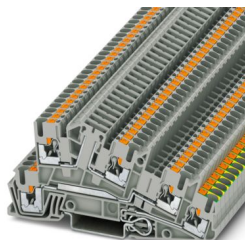
# PTI 2,5-PE/L/TG - Installation ground terminal block



3213960

<https://www.phoenixcontact.com/sg/products/3213960>

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Installation ground terminal block, Current and voltage are determined by the plug used., nom. voltage: 400 V, Thermal continuous current  $I_{th}$ : 24 A, Push-in connection, Rated cross section: 4 mm<sup>2</sup>, cross section: 0.14 mm<sup>2</sup> - 4 mm<sup>2</sup>, Push-in connection, cross section: 0.14 mm<sup>2</sup> - 4 mm<sup>2</sup>, mounting type: NS 35/7,5, NS 35/15, color: gray

## Your advantages

- Double function shafts on all levels
- The terminal blocks with knife disconnect zone in the upper level meet the safety requirement regarding individual circuit isolation of DIN VDE 0100-718

## Commercial data

|                                      |                    |
|--------------------------------------|--------------------|
| Item number                          | 3213960            |
| Packing unit                         | 50 pc              |
| Minimum order quantity               | 50 pc              |
| Sales key                            | *****              |
| Product key                          | BE2253             |
| Catalog page                         | Page 77 (C-1-2019) |
| GTIN                                 | 4046356609579      |
| Weight per piece (including packing) | 18.62 g            |
| Weight per piece (excluding packing) | 18.5 g             |
| Customs tariff number                | 85369010           |
| Country of origin                    | DE                 |

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## Technical data

### Notes

|         |                                                      |
|---------|------------------------------------------------------|
| General | Current and voltage are determined by the plug used. |
|---------|------------------------------------------------------|

### Product properties

|                       |                       |
|-----------------------|-----------------------|
| Product type          | Ground terminal block |
| Number of connections | 5                     |
| Number of rows        | 3                     |
| Potentials            | 2                     |

### Insulation characteristics

|                      |     |
|----------------------|-----|
| Overvoltage category | III |
| Degree of pollution  | 3   |

### Electrical properties

|                                                 |        |
|-------------------------------------------------|--------|
| Rated surge voltage                             | 4 kV   |
|                                                 | 6 kV   |
| Maximum power dissipation for nominal condition | 1.02 W |

### Connection data

|                                                                   |                                                                |
|-------------------------------------------------------------------|----------------------------------------------------------------|
| Number of connections per level                                   | 2                                                              |
| Nominal cross section                                             | 4 mm <sup>2</sup>                                              |
| Note                                                              | Please observe the current carrying capacity of the DIN rails. |
| Stripping length                                                  | 8 mm ... 10 mm                                                 |
| Internal cylindrical gage                                         | A3                                                             |
| Conductor cross section rigid                                     | 0.14 mm <sup>2</sup> ... 4 mm <sup>2</sup>                     |
| Cross section AWG                                                 | 26 ... 12 (converted acc. to IEC)                              |
| Conductor cross section flexible                                  | 0.14 mm <sup>2</sup> ... 4 mm <sup>2</sup>                     |
| Conductor cross section, flexible [AWG]                           | 26 ... 12 (converted acc. to IEC)                              |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>                   |
| Flexible conductor cross section (ferrule with plastic sleeve)    | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>                   |
| Thermal continuous current I <sub>th</sub>                        | 24 A                                                           |
| Maximum load current                                              | 24 A (with 4 mm <sup>2</sup> conductor cross-section)          |
| Nominal voltage                                                   | 400 V (phase conductor/phase conductor)                        |
|                                                                   | 250 V (phase conductor/PE)                                     |
| Nominal cross section                                             | 4 mm <sup>2</sup>                                              |

### Level 3

|                                         |                                            |
|-----------------------------------------|--------------------------------------------|
| Stripping length                        | 8 mm ... 10 mm                             |
| Conductor cross section rigid           | 0.14 mm <sup>2</sup> ... 4 mm <sup>2</sup> |
| Cross section AWG                       | 26 ... 12 (converted acc. to IEC)          |
| Conductor cross section flexible        | 0.14 mm <sup>2</sup> ... 4 mm <sup>2</sup> |
| Conductor cross section, flexible [AWG] | 26 ... 12 (converted acc. to IEC)          |

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|                                                                                           |                                                       |
|-------------------------------------------------------------------------------------------|-------------------------------------------------------|
| Conductor cross-section flexible (ferrule without plastic sleeve)                         | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>          |
| Flexible conductor cross section (ferrule with plastic sleeve)                            | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>          |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm <sup>2</sup>                                   |
| Thermal continuous current $I_{th}$                                                       | 16 A                                                  |
| Maximum load current                                                                      | 16 A (with 4 mm <sup>2</sup> conductor cross section) |
| Nominal voltage                                                                           | 250 V                                                 |

## Connection cross sections directly pluggable

|                                                                   |                                              |
|-------------------------------------------------------------------|----------------------------------------------|
| Conductor cross section rigid                                     | 0.34 mm <sup>2</sup> ... 4 mm <sup>2</sup>   |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.34 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Flexible conductor cross section (ferrule with plastic sleeve)    | 0.34 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |

## Level 3 Connection cross sections directly pluggable

|                                                                   |                                              |
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| Conductor cross section rigid                                     | 0.34 mm <sup>2</sup> ... 4 mm <sup>2</sup>   |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.34 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Flexible conductor cross section (ferrule with plastic sleeve)    | 0.34 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |

## Dimensions

|                    |         |
|--------------------|---------|
| Width              | 5.2 mm  |
| End cover width    | 2.2 mm  |
| Height             | 101 mm  |
| Depth on NS 35/7,5 | 50.5 mm |
| Depth on NS 35/15  | 58 mm   |

## Material specifications

|                                                                  |                 |
|------------------------------------------------------------------|-----------------|
| Color                                                            | gray (RAL 7042) |
| Flammability rating according to UL 94                           | V0              |
| Insulating material group                                        | I               |
| Insulating material                                              | PA              |
| Static insulating material application in cold                   | -60 °C          |
| Relative insulation material temperature index (Elec., UL 746 B) | 130 °C          |
| Fire protection for rail vehicles (DIN EN 45545-2) R22           | HL 1 - HL 3     |
| Fire protection for rail vehicles (DIN EN 45545-2) R23           | HL 1 - HL 3     |
| Fire protection for rail vehicles (DIN EN 45545-2) R24           | HL 1 - HL 3     |
| Fire protection for rail vehicles (DIN EN 45545-2) R26           | HL 1 - HL 3     |
| Surface flammability NFPA 130 (ASTM E 162)                       | passed          |
| Specific optical density of smoke NFPA 130 (ASTM E 662)          | passed          |
| Smoke gas toxicity NFPA 130 (SMP 800C)                           | passed          |

## Electrical tests

### Surge voltage test

|                       |             |
|-----------------------|-------------|
| Test voltage setpoint | 7.3 kV      |
| Result                | Test passed |

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## Temperature-rise test

|                                                  |                                     |
|--------------------------------------------------|-------------------------------------|
| Requirement temperature-rise test                | Increase in temperature $\leq 45$ K |
| Result                                           | Test passed                         |
| Short-time withstand current 4 mm <sup>2</sup>   | 0.48 kA                             |
| Short-time withstand current 1.5 mm <sup>2</sup> | 0.18 kA                             |
| Result                                           | Test passed                         |

## Power-frequency withstand voltage

|                       |             |
|-----------------------|-------------|
| Test voltage setpoint | 1.89 kV     |
| Result                | Test passed |

## Mechanical properties

### Mechanical data

|                 |     |
|-----------------|-----|
| Open side panel | Yes |
|-----------------|-----|

## Mechanical tests

### Mechanical strength

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

### Attachment on the carrier

|                         |             |
|-------------------------|-------------|
| DIN rail/fixing support | NS 32/NS 35 |
| Test force setpoint     | 1 N         |
| Result                  | Test passed |

### Test for conductor damage and slackening

|                                |                                                             |
|--------------------------------|-------------------------------------------------------------|
| Rotation speed                 | 10 (+/- 2) rpm                                              |
| Revolutions                    | 135                                                         |
| Conductor cross section/weight | 0.14 mm <sup>2</sup> / 0.2 kg<br>4 mm <sup>2</sup> / 0.9 kg |
| Result                         | Test passed                                                 |

## Environmental and real-life conditions

### Aging

|                    |             |
|--------------------|-------------|
| Temperature cycles | 192         |
| Result             | Test passed |

### Needle-flame test

|                  |             |
|------------------|-------------|
| Time of exposure | 30 s        |
| Result           | Test passed |

### Oscillation/broadband noise

|               |                                          |
|---------------|------------------------------------------|
| Specification | DIN EN 50155 (VDE 0115-200):2022-06      |
| Spectrum      | Long life test category 2, bogie-mounted |
| Frequency     | $f_1 = 5$ Hz to $f_2 = 250$ Hz           |
| ASD level     | 6.12 (m/s <sup>2</sup> )/Hz              |

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|                        |                   |
|------------------------|-------------------|
| Acceleration           | 3.12g             |
| Test duration per axis | 5 h               |
| Test directions        | X-, Y- and Z-axis |
| Result                 | Test passed       |

## Shocks

|                                |                                     |
|--------------------------------|-------------------------------------|
| Specification                  | DIN EN 50155 (VDE 0115-200):2008-03 |
| Pulse shape                    | Half-sine                           |
| Acceleration                   | 5g                                  |
| Shock duration                 | 30 ms                               |
| Number of shocks per direction | 3                                   |
| Test directions                | X-, Y- and Z-axis (pos. and neg.)   |
| Result                         | Test passed                         |

## Ambient conditions

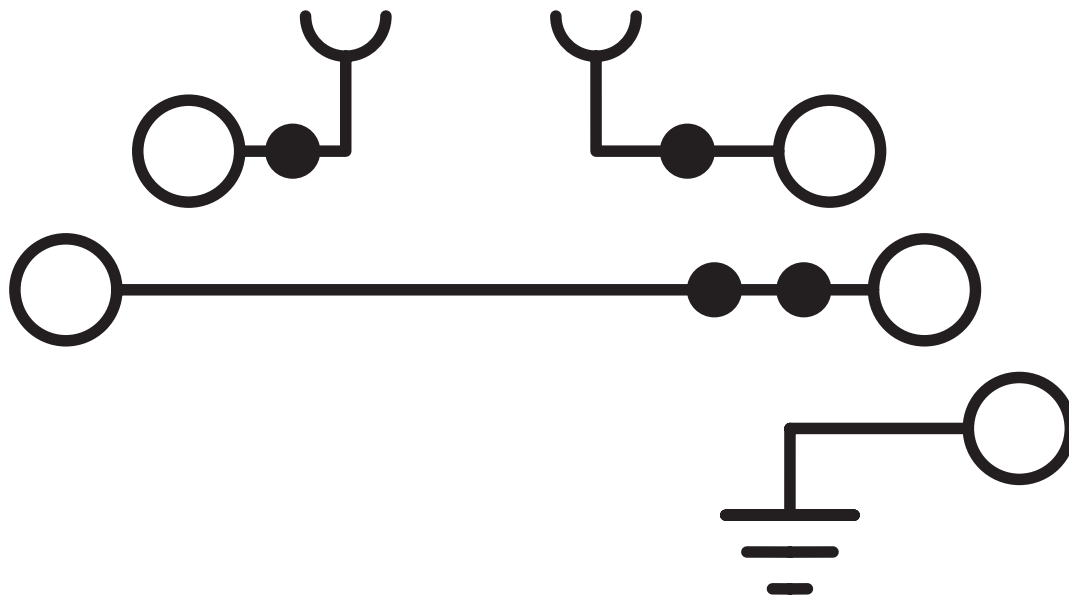
|                                          |                                                                                                                              |
|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Ambient temperature (operation)          | -60 °C ... 110 °C (Operating temperature range incl. self-heating; for max. short-term operating temperature, see RTI Elec.) |
| Ambient temperature (storage/transport)  | -25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C)                                                    |
| Ambient temperature (assembly)           | -5 °C ... 70 °C                                                                                                              |
| Ambient temperature (actuation)          | -5 °C ... 70 °C                                                                                                              |
| Permissible humidity (operation)         | 20 % ... 90 %                                                                                                                |
| Permissible humidity (storage/transport) | 30 % ... 70 %                                                                                                                |

## Mounting

|               |           |
|---------------|-----------|
| Mounting type | NS 35/7,5 |
|               | NS 35/15  |

## Drawings

Circuit diagram



# PTI 2,5-PE/L/TG - Installation ground terminal block



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/sg/products/3213960>

|                                                                                                                      |                       |                       |                   |                             |
|----------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|  <b>CSA</b><br>Approval ID: 2030668 |                       |                       |                   |                             |
|                                                                                                                      | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| Use group B                                                                                                          | 300 V                 | 20 A                  | 26 - 12           | -                           |
| Use group C                                                                                                          |                       |                       |                   |                             |
| Use group D                                                                                                          | 150 V                 | 20 A                  | 26 - 12           | -                           |
|                                                                                                                      | 300 V                 | 10 A                  | 26 - 12           | -                           |

|                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------|
|  <b>IECEE CB Scheme</b><br>Approval ID: DE1-62955 |
|------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------|
|  <b>EAC</b><br>Approval ID: RU C-DE.BL08.B.00644 |
|-------------------------------------------------------------------------------------------------------------------------------------|

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|  <b>cULus Recognized</b><br>Approval ID: E60425 |
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|  <b>cULus Recognized</b><br>Approval ID: E60425 |
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|                                                                                                                                              |                       |                       |                   |                             |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|  <b>VDE approval of drawings</b><br>Approval ID: 40037480 |                       |                       |                   |                             |
|                                                                                                                                              | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                                                                              | -                     | -                     | -                 | 0.2 - 4                     |

|                                       |
|---------------------------------------|
| <b>DNV</b><br>Approval ID: TAE00001BU |
|---------------------------------------|

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27141125 |
| ECLASS-12.0 | 27141125 |
| ECLASS-13.0 | 27250110 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC001329 |
|----------|----------|

### 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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