

# PTTBS 2,5-PE/L - Multi-level terminal block



3209621

<https://www.phoenixcontact.com/us/products/3209621>

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.



Multi-level terminal block, nom. voltage: 500 V, nominal current: 24 A, connection method: Push-in connection, 1st and 2nd level, Rated cross section: 2.5 mm<sup>2</sup>, 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

- Time-saving conductor connection thanks to tool-free direct-connection technology
- Vibration-resistant and maintenance-free conductor connection
- High level of safety thanks to the low-resistance connection to the ground potential via the top-hat rail
- Direct contacting with the DIN rail enables fast, error-free grounding without additional wiring effort.

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 3209621       |
| Packing unit                         | 50 pc         |
| Minimum order quantity               | 50 pc         |
| Sales key                            | BE22          |
| Product key                          | BE2224        |
| GTIN                                 | 4046356842693 |
| Weight per piece (including packing) | 17.128 g      |
| Weight per piece (excluding packing) | 17.12 g       |
| Customs tariff number                | 85369010      |
| Country of origin                    | CN            |

# PTTBS 2,5-PE/L - Multi-level terminal block



3209621

<https://www.phoenixcontact.com/us/products/3209621>

## Technical data

### Product properties

|                       |                       |
|-----------------------|-----------------------|
| Product type          | Ground terminal block |
| Product family        | PTS                   |
| Pitch                 | 5.2 mm                |
| Number of connections | 4                     |
| Number of rows        | 2                     |

### Insulation characteristics

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

### Electrical properties

|                                                 |        |
|-------------------------------------------------|--------|
| Rated surge voltage                             | 6 kV   |
| Maximum power dissipation for nominal condition | 0.77 W |

### Connection data

|                                 |                     |
|---------------------------------|---------------------|
| Number of connections per level | 2                   |
| Nominal cross section           | 2.5 mm <sup>2</sup> |

### 1st and 2nd level

|                                                                                           |                                                                |
|-------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| Connection method                                                                         | Push-in connection                                             |
| Note                                                                                      | Please observe the current carrying capacity of the DIN rails. |
| Stripping length                                                                          | 10 mm                                                          |
| Internal cylindrical gage                                                                 | A3                                                             |
| Connection in acc. with standard                                                          | IEC 60947-7-1/IEC 60947-7-2                                    |
| 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>                   |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm <sup>2</sup>                                            |
| Nominal current                                                                           | 24 A                                                           |
| Maximum load current                                                                      | 30 A (with 4 mm <sup>2</sup> conductor cross-section, rigid)   |
| Nominal voltage                                                                           | 500 V                                                          |
| Nominal cross section                                                                     | 2.5 mm <sup>2</sup>                                            |

### 1st and 2nd level 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> |

# PTTBS 2,5-PE/L - Multi-level terminal block



3209621

<https://www.phoenixcontact.com/us/products/3209621>

## Dimensions

|                    |         |
|--------------------|---------|
| Width              | 5.2 mm  |
| End cover width    | 2.2 mm  |
| Height             | 78 mm   |
| Depth on NS 35/7,5 | 54.5 mm |
| Depth on NS 35/15  | 62 mm   |
| Pitch              | 5.2 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          |
| Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21)) | 125 °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     |
| Calorimetric heat release NFPA 130 (ASTM E 1354)                        | 27,5 MJ/kg      |
| 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 |

### Temperature-rise test

|                                                  |                                     |
|--------------------------------------------------|-------------------------------------|
| Requirement temperature-rise test                | Increase in temperature $\leq 45$ K |
| Result                                           | Test passed                         |
| Short-time withstand current 2.5 mm <sup>2</sup> | 0.3 kA                              |
| Short-time withstand current 4 mm <sup>2</sup>   | 0.48 kA                             |
| Result                                           | Test passed                         |

### Power-frequency withstand voltage

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

## Mechanical properties

### Mechanical data

# PTTBS 2,5-PE/L - Multi-level terminal block



3209621

<https://www.phoenixcontact.com/us/products/3209621>

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

## Mechanical tests

### Mechanical strength

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

### Test for conductor damage and slackening

|                                |                               |
|--------------------------------|-------------------------------|
| Rotation speed                 | 10 rpm                        |
| Revolutions                    | 135                           |
| Conductor cross-section/weight | 0.14 mm <sup>2</sup> / 0.2 kg |
|                                | 2.5 mm <sup>2</sup> / 0.7 kg  |
|                                | 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):2008-03            |
| Spectrum               | Long life test category 2, bogie-mounted       |
| Frequency              | $f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$ |
| ASD level              | 6.12 (m/s <sup>2</sup> ) <sup>2</sup> /Hz      |
| 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                   | 30g                                 |
| Shock duration                 | 18 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.) |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------|

# PTTBS 2,5-PE/L - Multi-level terminal block



3209621

<https://www.phoenixcontact.com/us/products/3209621>

|                                          |                                                                           |
|------------------------------------------|---------------------------------------------------------------------------|
| 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 %                                                             |

## Standards and regulations

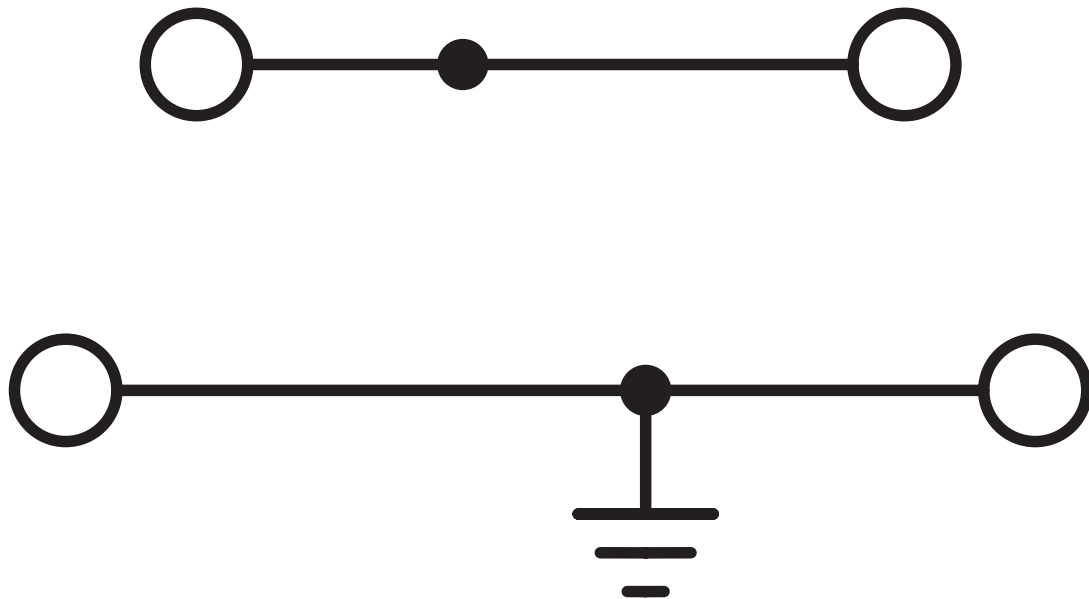
|                                  |                             |
|----------------------------------|-----------------------------|
| Connection in acc. with standard | IEC 60947-7-1/IEC 60947-7-2 |
|----------------------------------|-----------------------------|

## Mounting

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

## Drawings

Circuit diagram



# PTTBS 2,5-PE/L - Multi-level terminal block



3209621

<https://www.phoenixcontact.com/us/products/3209621>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3209621>

|  <b>CSA</b><br>Approval ID: 2030668 |                       |                       |                   |                             |
|----------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                      | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| B                                                                                                                    |                       |                       |                   |                             |
| upper level                                                                                                          | 300 V                 | 20 A                  | 26 - 12           | -                           |
| C                                                                                                                    |                       |                       |                   |                             |
| upper level                                                                                                          | 300 V                 | 20 A                  | 26 - 12           | -                           |
| D                                                                                                                    |                       |                       |                   |                             |
| upper level                                                                                                          | 600 V                 | 5 A                   | 26 - 12           | -                           |

|  <b>IECEE CB Scheme</b><br>Approval ID: DE1-62939 |                       |                       |                   |                             |
|------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                                    | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| keine                                                                                                                              |                       |                       |                   |                             |
|                                                                                                                                    | 500 V                 | -                     | -                 | 0.2 - 2.5                   |

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

|  <b>cULus Recognized</b><br>Approval ID: E60425 |                       |                       |                   |                             |
|------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                                    | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| B                                                                                                                                  |                       |                       |                   |                             |
|                                                                                                                                    | -                     | -                     | 24 - 12           | -                           |
| C                                                                                                                                  |                       |                       |                   |                             |
|                                                                                                                                    | -                     | -                     | 24 - 12           | -                           |

|  <b>VDE Zeichengenehmigung</b><br>Approval ID: 40044641 |                       |                       |                   |                             |
|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                                            | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| keine                                                                                                                                      |                       |                       |                   |                             |
|                                                                                                                                            | 500 V                 | 22 A                  | -                 | 0.2 - 2.5                   |

| <b>ABS</b><br>Approval ID: 21-2192245-PDA |  |  |  |  |
|-------------------------------------------|--|--|--|--|
|-------------------------------------------|--|--|--|--|

# PTTBS 2,5-PE/L - Multi-level terminal block

3209621

<https://www.phoenixcontact.com/us/products/3209621>



**EAC**

Approval ID: KZ7500651131219505

# PTTBS 2,5-PE/L - Multi-level terminal block



3209621

<https://www.phoenixcontact.com/us/products/3209621>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27250104 |
| ECLASS-15.0 | 27250104 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC000901 |
|----------|----------|

### UNSPSC

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

# PTTBS 2,5-PE/L - Multi-level terminal block



3209621

<https://www.phoenixcontact.com/us/products/3209621>

## 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%               |

Phoenix Contact 2025 © - 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)