

# PT 4 BK - Feed-through terminal block



3211776

<https://www.phoenixcontact.com/pc/products/3211776>

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.



Feed-through terminal block, nom. voltage: 800 V, nominal current: 32 A, number of connections: 2, connection method: Push-in connection, Rated cross section: 4 mm<sup>2</sup>, cross section: 0.2 mm<sup>2</sup> - 6 mm<sup>2</sup>, mounting type: NS 35/7,5, NS 35/15, color: black

## Your advantages

- In addition to the testing option in the double function shaft, all terminal blocks provide an additional test pick-off
- The Push-in connection terminal blocks are characterized by the system features of the CLIPLINE complete system and by easy and tool-free wiring of conductors with ferrules or solid conductors
- The compact design and front connection enable wiring in a confined space<br/>
- Tested for railway applications

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 3211776       |
| Packing unit                         | 50 pc         |
| Minimum order quantity               | 50 pc         |
| Product key                          | BE2211        |
| GTIN                                 | 4046356893909 |
| Weight per piece (including packing) | 8.54 g        |
| Weight per piece (excluding packing) | 8 g           |
| Customs tariff number                | 85369010      |
| Country of origin                    | CN            |

# PT 4 BK - Feed-through terminal block



3211776

<https://www.phoenixcontact.com/pc/products/3211776>

## Technical data

### Product properties

|                       |                             |
|-----------------------|-----------------------------|
| Product type          | Feed-through terminal block |
| Area of application   | Railway industry            |
|                       | Machine building            |
|                       | Plant engineering           |
|                       | Process industry            |
| Number of connections | 2                           |
| Number of rows        | 1                           |
| Potentials            | 1                           |

### Insulation characteristics

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

### Electrical properties

|                                                 |        |
|-------------------------------------------------|--------|
| Rated surge voltage                             | 8 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>                                            |
| Stripping length                                                                          | 10 mm ... 12 mm                                              |
| Internal cylindrical gage                                                                 | A4                                                           |
| Connection in acc. with standard                                                          | IEC 60947-7-1                                                |
| Conductor cross section rigid                                                             | 0.2 mm <sup>2</sup> ... 6 mm <sup>2</sup>                    |
| Cross section AWG                                                                         | 24 ... 10 (converted acc. to IEC)                            |
| Conductor cross section flexible                                                          | 0.2 mm <sup>2</sup> ... 6 mm <sup>2</sup>                    |
| Conductor cross section, flexible [AWG]                                                   | 24 ... 10 (converted acc. to IEC)                            |
| Conductor cross-section flexible (ferrule without plastic sleeve)                         | 0.25 mm <sup>2</sup> ... 4 mm <sup>2</sup>                   |
| Flexible conductor cross section (ferrule with plastic sleeve)                            | 0.25 mm <sup>2</sup> ... 4 mm <sup>2</sup>                   |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm <sup>2</sup> ... 1 mm <sup>2</sup>                    |
| Nominal current                                                                           | 32 A                                                         |
| Maximum load current                                                                      | 36 A (with 6 mm <sup>2</sup> conductor cross section, rigid) |
| Nominal voltage                                                                           | 800 V                                                        |
| Nominal cross section                                                                     | 4 mm <sup>2</sup>                                            |

### Connection cross sections directly pluggable

|                                                                   |                                            |
|-------------------------------------------------------------------|--------------------------------------------|
| Conductor cross section rigid                                     | 0.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>  |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.75 mm <sup>2</sup> ... 4 mm <sup>2</sup> |
| Flexible conductor cross section (ferrule with plastic sleeve)    | 0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup>  |

### Ex data

# PT 4 BK - Feed-through terminal block



3211776

<https://www.phoenixcontact.com/pc/products/3211776>

## Rated data (ATEX/IECEX)

|                                                                          |                                     |
|--------------------------------------------------------------------------|-------------------------------------|
| Identification                                                           | Ex II 2 G Ex eb IIC Gb              |
| Operating temperature range                                              | -60 °C ... 110 °C                   |
| Ex-certified accessories                                                 | 3030420 D-ST 4                      |
|                                                                          | 3030721 ATP-ST 4                    |
|                                                                          | 1204517 SZF 1-0,6X3,5               |
|                                                                          | 3022276 CLIPFIX 35-5                |
|                                                                          | 3022218 CLIPFIX 35                  |
| List of bridges                                                          | Plug-in bridge / FBS 2-6 / 3030336  |
|                                                                          | Plug-in bridge / FBS 3-6 / 3030242  |
|                                                                          | Plug-in bridge / FBS 4-6 / 3030255  |
|                                                                          | Plug-in bridge / FBS 5-6 / 3030349  |
|                                                                          | Plug-in bridge / FBS 10-6 / 3030271 |
|                                                                          | Plug-in bridge / FBS 20-6 / 3030365 |
| Bridge data                                                              | 25 A / 4 mm <sup>2</sup>            |
| Ex temperature increase                                                  | 40 K (26 A / 4 mm <sup>2</sup> )    |
| Rated voltage                                                            | 550 V                               |
| for bridging with bridge                                                 | 550 V                               |
| - At bridging between non-adjacent terminal blocks                       | 352 V                               |
| - At bridging between non-adjacent terminal blocks via PE terminal block | 352 V                               |
| - At cut-to-length bridging                                              | 220 V                               |
| - At cut-to-length bridging with cover                                   | 275 V                               |
| - At cut-to-length bridging with partition plate                         | 550 V                               |
| Rated insulation voltage                                                 | 500 V                               |
| output                                                                   | (Permanent)                         |

## Ex level General

|                      |                           |
|----------------------|---------------------------|
| Rated current        | 26 A (4 mm <sup>2</sup> ) |
| Maximum load current | 30 A (6 mm <sup>2</sup> ) |
| Contact resistance   | 0.59 mΩ                   |

## Ex connection data General

|                              |                                           |
|------------------------------|-------------------------------------------|
| Nominal cross section        | 4 mm <sup>2</sup>                         |
| Rated cross section AWG      | 12                                        |
| Connection capacity rigid    | 0.2 mm <sup>2</sup> ... 6 mm <sup>2</sup> |
| Connection capacity AWG      | 24 ... 10                                 |
| Connection capacity flexible | 0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup> |
| Connection capacity AWG      | 24 ... 12                                 |

## Dimensions

|                 |         |
|-----------------|---------|
| Width           | 6.2 mm  |
| End cover width | 2.2 mm  |
| Height          | 56 mm   |
| Depth           | 35.3 mm |

# PT 4 BK - Feed-through terminal block



3211776

<https://www.phoenixcontact.com/pc/products/3211776>

|                    |         |
|--------------------|---------|
| Depth on NS 35/7,5 | 36.5 mm |
| Depth on NS 35/15  | 44 mm   |

## Material specifications

|                                                                  |             |
|------------------------------------------------------------------|-------------|
| Color                                                            | black       |
| 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 | 9.8 kV      |
| Result                | Test passed |

### 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 6 mm <sup>2</sup> | 0.72 kA                             |
| Result                                         | Test passed                         |

### Power-frequency withstand voltage

|                       |             |
|-----------------------|-------------|
| Test voltage setpoint | 2 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 35 |
|-------------------------|-------|

# PT 4 BK - Feed-through terminal block



3211776

<https://www.phoenixcontact.com/pc/products/3211776>

|                     |             |
|---------------------|-------------|
| Test force setpoint | 1 N         |
| Result              | Test passed |

## Test for conductor damage and slackening

|                                |                              |
|--------------------------------|------------------------------|
| Rotation speed                 | 10 rpm                       |
| Revolutions                    | 135                          |
| Conductor cross section/weight | 0.2 mm <sup>2</sup> / 0.2 kg |
|                                | 4 mm <sup>2</sup> / 0.9 kg   |
|                                | 6 mm <sup>2</sup> / 1.4 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                 |
|                        | DIN EN 50155 (VDE 0115-200):2022-06                 |
| Spectrum               | Service life test category 2, bogie-mounted         |
|                        | Service life test category 1, class B, body mounted |
| Frequency              | f <sub>1</sub> = 5 Hz to f <sub>2</sub> = 250 Hz    |
|                        | f <sub>1</sub> = 5 Hz to f <sub>2</sub> = 150 Hz    |
| ASD level              | 6.12 (m/s <sup>2</sup> ) <sup>2</sup> /Hz           |
|                        | 0.964 (m/s <sup>2</sup> ) <sup>2</sup> /Hz          |
| Acceleration           | 3.12g                                               |
|                        | 0.58g                                               |
| Test duration per axis | 5 h                                                 |
|                        | 5 h                                                 |
| Test directions        | X-, Y- and Z-axis                                   |
|                        | X-, Y- and Z-axis                                   |
| Result                 | Test passed                                         |
|                        | Test passed                                         |

### Shocks

|               |                                     |
|---------------|-------------------------------------|
| Specification | DIN EN 50155 (VDE 0115-200):2008-03 |
|               | DIN EN 50155 (VDE 0115-200):2022-06 |
| Pulse shape   | Half-sine                           |
|               | Half-sine                           |
| Acceleration  | 30g                                 |
|               | 5g                                  |

# PT 4 BK - Feed-through terminal block



3211776

<https://www.phoenixcontact.com/pc/products/3211776>

|                                |                                   |
|--------------------------------|-----------------------------------|
| Shock duration                 | 18 ms                             |
|                                | 30 ms                             |
| Number of shocks per direction | 3                                 |
|                                | 3                                 |
| Test directions                | X-, Y- and Z-axis (pos. and neg.) |
|                                | X-, Y- and Z-axis (pos. and neg.) |
| Result                         | Test passed                       |
|                                | 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, no longer than 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 |
|----------------------------------|---------------|

## Mounting

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

# PT 4 BK - Feed-through terminal block

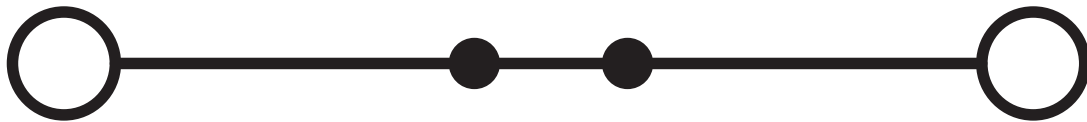
3211776

<https://www.phoenixcontact.com/pc/products/3211776>



## Drawings

Circuit diagram



# PT 4 BK - Feed-through terminal block



3211776

<https://www.phoenixcontact.com/pc/products/3211776>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/3211776>

|  <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                                                                                                          | 600 V                 | 30 A                  | 24 - 10           | -                           |
| Use group C                                                                                                          | 600 V                 | 30 A                  | 24 - 10           | -                           |

|  <b>IECEE CB Scheme</b><br>Approval ID: DE1-65853 |                       |                       |                   |                             |
|------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                                    | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                                                                    | 800 V                 | 32 A                  | -                 | 0.2 - 4                     |

|  <b>cULus Recognized</b><br>Approval ID: E60425 |                       |                       |                   |                             |
|------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                                    | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| Use group B                                                                                                                        | 600 V                 | 30 A                  | 24 - 10           | -                           |
| Use group C                                                                                                                        | 600 V                 | 30 A                  | 24 - 10           | -                           |

|                                                                                                                           |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
|  <b>LR</b><br>Approval ID: LR2371832TA |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------|--|--|--|--|

|                                                                                                                        |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
|  <b>NK</b><br>Approval ID: 22ME0007 |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------|--|--|--|--|

|                                                                                                                                  |  |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
|  <b>RS</b><br>Approval ID: 22.44.01.00083.250 |  |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|

|                                                                                                                           |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
|  <b>BV</b><br>Approval ID: 39980/B0 BV |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------|--|--|--|--|

|  <b>VDE Gutachten mit Fertigungsüberwachung</b><br>Approval ID: 40036696 |                       |                       |                   |                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                                                             | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |



# PT 4 BK - Feed-through terminal block



3211776

<https://www.phoenixcontact.com/pc/products/3211776>

|  |       |      |   |         |
|--|-------|------|---|---------|
|  | 800 V | 32 A | - | 0.2 - 4 |
|--|-------|------|---|---------|



**PRs**

Approval ID: TE/2107/880590/21

**DNV**

Approval ID: TAE000010T



**cUL Recognized**

Approval ID: E192998

|  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
|  | 550 V                 | 30 A                  | 24 - 10           | -                           |



**IECEx**

Approval ID: IECExPTB10.0046U

|                          | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|--------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
| Only flexible conductors | 550 V                 | 26 A                  | -                 | 0.2 - 4                     |
| Only rigid conductors    | 550 V                 | 30 A                  | -                 | 0.2 - 6                     |



**UL Recognized**

Approval ID: E192998

|  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
|  | 550 V                 | 30 A                  | 24 - 10           | -                           |



**ATEX**

Approval ID: PTB09ATEX1112U

|                          | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|--------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
| Only flexible conductors | 550 V                 | 26 A                  | -                 | 0.2 - 4                     |
| Only rigid conductors    | 550 V                 | 30 A                  | -                 | 0.2 - 6                     |



**CCC**

Approval ID: 2020322313000631



**UKCA-EX**

Approval ID: CSAE 22UKEX1100U

# PT 4 BK - Feed-through terminal block

3211776

<https://www.phoenixcontact.com/pc/products/3211776>



cULus Recognized

# PT 4 BK - Feed-through terminal block



3211776

<https://www.phoenixcontact.com/pc/products/3211776>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27141120 |
| ECLASS-13.0 | 27250101 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC000897 |
|----------|----------|

### UNSPSC

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

# PT 4 BK - Feed-through terminal block



3211776

<https://www.phoenixcontact.com/pc/products/3211776>

## 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 2024 © - all rights reserved  
<https://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG  
Flachmarktstraße 8  
D-32825 Blomberg  
+49 (0) 5235-3 00  
[info@phoenixcontact.com](mailto:info@phoenixcontact.com)