

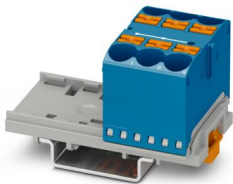
# PTFIX 6X10/S-NS35 BU - Distribution block



1082404

<https://www.phoenixcontact.com/us/products/1082404>

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Distribution block, Block with vertical alignment, nom. voltage: 800 V, nominal current: 57 A, number of connections: 6, connection method: Push-in connection, Rated cross section: 10 mm<sup>2</sup>, cross section: 0.5 mm<sup>2</sup> - 16 mm<sup>2</sup>, mounting type: NS 35/7,5, NS 35/15, color: blue

## Your advantages

- Time savings of up to 80 %, thanks to ready-to-mount blocks without manual bridging
- Time-saving conductor connection, thanks to tool-free Push-in direct connection technology
- Clear wiring, thanks to eleven different color variants
- Flexible use, thanks to DIN rail mounting, direct mounting or adhesive mounting
- Space savings of up to 50 % on the DIN rail, thanks to transverse mounting

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1082404       |
| Packing unit                         | 10 pc         |
| Minimum order quantity               | 10 pc         |
| Sales key                            | BE09          |
| Product key                          | BEA113        |
| GTIN                                 | 4055626814803 |
| Weight per piece (including packing) | 31.07 g       |
| Weight per piece (excluding packing) | 30 g          |
| Customs tariff number                | 85369010      |
| Country of origin                    | PL            |

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## Technical data

### Notes

#### General

|      |                                                                                                                                                         |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Note | For versions with 6 or 7 connections, it is enough to place one DIN rail adapter centrally per block and place flange elements after every other block. |
|      | Depending on the application case and mechanical load, other arrangements of the mounting accessory can also be chosen.                                 |
|      | When using the DIN rail adapter PTFIX-NS35, an aligned block must not protrude by more than a half.                                                     |

### Product properties

|                       |                            |
|-----------------------|----------------------------|
| Product type          | Distributor terminal block |
| Number of connections | 6                          |
| 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 | 1.82 W |

### Connection data

|                                                                   |                                                                                        |
|-------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| Number of connections per level                                   | 6                                                                                      |
| Nominal cross section                                             | 10 mm <sup>2</sup>                                                                     |
| Stripping length                                                  | 12 mm ... 14 mm                                                                        |
| Connection in acc. with standard                                  | IEC 60947-7-1                                                                          |
| Conductor cross section rigid                                     | 0.5 mm <sup>2</sup> ... 16 mm <sup>2</sup>                                             |
| Cross section AWG                                                 | 20 ... 6 (converted acc. to IEC)                                                       |
| Conductor cross section flexible                                  | 0.5 mm <sup>2</sup> ... 10 mm <sup>2</sup>                                             |
| Conductor cross section, flexible [AWG]                           | 20 ... 8 (converted acc. to IEC)                                                       |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.5 mm <sup>2</sup> ... 10 mm <sup>2</sup>                                             |
| Flexible conductor cross section (ferrule with plastic sleeve)    | 0.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>                                              |
| Nominal current                                                   | 57 A                                                                                   |
| Maximum load current                                              | 76 A (with a 16 mm <sup>2</sup> conductor cross section, rigid)                        |
| Maximum total current                                             | 90 A (The maximum load current of the individual terminal point must not be exceeded.) |
| Nominal voltage                                                   | 800 V                                                                                  |
| Nominal cross section                                             | 10 mm <sup>2</sup>                                                                     |

Connection cross sections directly pluggable

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|                                                                   |                                          |
|-------------------------------------------------------------------|------------------------------------------|
| Conductor cross section rigid                                     | 1 mm <sup>2</sup> ... 16 mm <sup>2</sup> |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 1 mm <sup>2</sup> ... 10 mm <sup>2</sup> |
| Flexible conductor cross section (ferrule with plastic sleeve)    | 1 mm <sup>2</sup> ... 6 mm <sup>2</sup>  |

## Dimensions

|                    |         |
|--------------------|---------|
| Width              | 37 mm   |
| Height             | 58.1 mm |
| Depth              | 25.1 mm |
| Depth on NS 15     | 32.1 mm |
| Depth on NS 35/7,5 | 34.6 mm |

## Material specifications

|                                                                         |             |
|-------------------------------------------------------------------------|-------------|
| Color                                                                   | blue        |
| Flammability rating according to UL 94                                  | V0          |
| Insulating material group                                               | I           |
| Static insulating material application in cold                          | -60 °C      |
| Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21)) | 130 °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)                        | 28 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

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

### Power-frequency withstand voltage

|                       |             |
|-----------------------|-------------|
| Test voltage setpoint | 2 kV        |
| Result                | Test passed |

## Mechanical properties

### Mechanical data

|                 |    |
|-----------------|----|
| Open side panel | No |
|-----------------|----|

## Mechanical tests

### Mechanical strength

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

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## Attachment on the carrier

|                         |                                                                                                                                                                                                                                                                    |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DIN rail/fixing support | NS 35                                                                                                                                                                                                                                                              |
| Result                  | Test passed                                                                                                                                                                                                                                                        |
| Note                    | For versions with 6 or 7 connections, it is enough to place one DIN rail adapter centrally per block and place flange elements after every other block.<br><br>When using the DIN rail adapter PTFIX-NS35, an aligned block must not protrude by more than a half. |

## Test for conductor damage and slackening

|                                |                                                                                          |
|--------------------------------|------------------------------------------------------------------------------------------|
| Rotation speed                 | 10 rpm                                                                                   |
| Revolutions                    | 135                                                                                      |
| Conductor cross section/weight | 0.5 mm <sup>2</sup> / 0.3 kg<br>10 mm <sup>2</sup> / 2 kg<br>16 mm <sup>2</sup> / 2.9 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):2018-05            |
| Spectrum               | Service 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

|                                |                                   |
|--------------------------------|-----------------------------------|
| 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; |
|---------------------------------|--------------------------------------------------------------------|

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|                                          |                                                                          |
|------------------------------------------|--------------------------------------------------------------------------|
|                                          | 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  |

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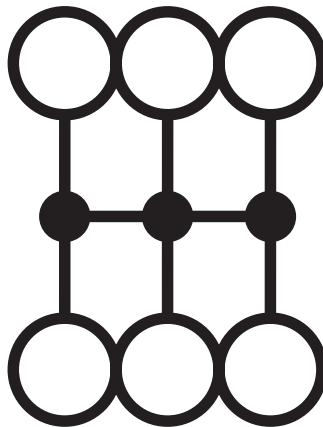
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## Drawings

Circuit diagram



# PTFIX 6X10/S-NS35 BU - Distribution block



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1082404>

|  <b>CSA</b><br>Approval ID: 158887 |                       |                       |                   |                             |
|---------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                     | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| Use group B                                                                                                         | 600 V                 | 60 A                  | 20 - 6            | -                           |
| Use group C                                                                                                         | 600 V                 | 60 A                  | 20 - 6            | -                           |
| Use group D                                                                                                         | 600 V                 | 5 A                   | 20 - 6            | -                           |

|  <b>IECEE CB Scheme</b><br>Approval ID: DE1-62701_M1 |                       |                       |                   |                             |
|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                                       | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                                                                       | 800 V                 | 57 A                  | -                 | - 10                        |

|  <b>VDE Zeichengenehmigung</b><br>Approval ID: 40047797 |                       |                       |                   |                             |
|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                                            | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                                                                            | 800 V                 | 57 A                  | -                 | 0.5 - 10                    |

|  <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                 | 60 A                  | 20 - 6            | -                           |
| Use group C                                                                                                                        | 600 V                 | 60 A                  | 20 - 6            | -                           |
| Use group D                                                                                                                        | 600 V                 | 5 A                   | 20 - 6            | -                           |

| <b>DNV</b><br>Approval ID: TAE00002TT-04 |                       |                       |                   |                             |
|------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                          | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                          | 500 V                 | 24 A                  | -                 | -                           |

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27141120 |
| ECLASS-13.0 | 27250118 |

### ETIM

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

### 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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## Accessories

**i** Note: Applying some accessories below might limit this product.

### FBS 2-8 - Plug-in bridge

3030284

<https://www.phoenixcontact.com/us/products/3030284>



Plug-in bridge, pitch: 8.2 mm, number of positions: 2, color: red

**i** Max. current carrying capacity: 41 A

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### FBS 2-8 BU - Plug-in bridge

3032567

<https://www.phoenixcontact.com/us/products/3032567>



Plug-in bridge, pitch: 8.2 mm, number of positions: 2, color: blue

**i** Max. current carrying capacity: 41 A

# PTFIX 6X10/S-NS35 BU - Distribution block



1082404

<https://www.phoenixcontact.com/us/products/1082404>

## FBS 2-8 GY - Plug-in bridge

3032621

<https://www.phoenixcontact.com/us/products/3032621>



Plug-in bridge, pitch: 8.2 mm, number of positions: 2, color: gray

 Max. current carrying capacity: 41 A

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## PTFIX 2,5-RZ - Mounting adapter

1632417

<https://www.phoenixcontact.com/us/products/1632417>

Securing pin adapter, for direct mounting of 2.5 mm<sup>2</sup>, 4 mm<sup>2</sup>, and 10 mm<sup>2</sup> FIX blocks, color: gray



# PTFIX 6X10/S-NS35 BU - Distribution block



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<https://www.phoenixcontact.com/us/products/1082404>

## US-TML (104X3,8) - Marker for terminal blocks

0830768

<https://www.phoenixcontact.com/us/products/0830768>



Marker for terminal blocks, Card, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: adhesive, lettering field size: 104 x 3.8 mm, Number of individual labels: 22

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## US-TML (104X2,8) - Marker for terminal blocks

0830767

<https://www.phoenixcontact.com/us/products/0830767>



Marker for terminal blocks, Card, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: adhesive, lettering field size: 104 x 2.8 mm, Number of individual labels: 26

# PTFIX 6X10/S-NS35 BU - Distribution block



1082404

<https://www.phoenixcontact.com/us/products/1082404>

## SK U/3,8 WH:UNBEDRUCKT - Marker card

0803906

<https://www.phoenixcontact.com/us/products/0803906>



Marker card, Din A4, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, Office printing systems, mounting type: adhesive, for terminal block width: 210 mm, lettering field size: 186 x 3.8 mm, Number of individual labels: 1440

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## SK U/2,8 WH:UNBEDRUCKT - Marker card

0803883

<https://www.phoenixcontact.com/us/products/0803883>



Marker card, Din A4, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, Office printing systems, mounting type: adhesive, for terminal block width: 210 mm, lettering field size: 186 x 2.8 mm, Number of individual labels: 3600

# PTFIX 6X10/S-NS35 BU - Distribution block



1082404

<https://www.phoenixcontact.com/us/products/1082404>

## TML (EX3,8)R - Marker strip

0801837

<https://www.phoenixcontact.com/us/products/0801837>



Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, lettering field size: continuous x 3.8 mm, Number of individual labels: 12

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## TML (104X3,8)R - Marker strip

0801833

<https://www.phoenixcontact.com/us/products/0801833>



Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 104 mm, lettering field size: 104 x 3.8 mm, Number of individual labels: 2500

# PTFIX 6X10/S-NS35 BU - Distribution block



1082404

<https://www.phoenixcontact.com/us/products/1082404>

## TML (104X2,8)R - Marker strip

0801832

<https://www.phoenixcontact.com/us/products/0801832>



Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 104 mm, lettering field size: 104 x 2.8 mm, Number of individual labels: 2500

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## TML (EX2,8)R - Marker strip

0801836

<https://www.phoenixcontact.com/us/products/0801836>



Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 30000 mm, lettering field size: continuous x 2.8 mm, Number of individual labels: 14

# PTFIX 6X10/S-NS35 BU - Distribution block



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## MM-TML (EX3,8)R C1 WH/BK - Label

1092026

<https://www.phoenixcontact.com/us/products/1092026>



Label, Roll, white/black, unlabeled, can be labeled with: THERMOFOX, THERMOMARK GO, THERMOMARK GO.K, mounting type: adhesive, lettering field size: continuous x 2.8 mm, Number of individual labels: 1

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