

# PTFIX 18X4-G BK - Distribution block



3273980

<https://www.phoenixcontact.com/us/products/3273980>

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Distribution block, bridged internally, nom. voltage: 450 V, nominal current: 32 A, number of connections: 18, connection method: Push-in connection, cross section: 0.2 mm<sup>2</sup> - 6 mm<sup>2</sup>, mounting type: adhesive, color: black

## Your advantages

- Clear arrangement thanks to marking of all terminal points
- Convenient test options, thanks to test openings at every terminal point
- Flexible use, thanks to DIN rail and direct mounting
- Space-saving, thanks to the compact design
- Space-saving potential distribution, thanks to compact micro potential distributors

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 3273980             |
| Packing unit                         | 1 pc                |
| Minimum order quantity               | 8 pc                |
| Sales key                            | BE09                |
| Product key                          | BEA115              |
| Catalog page                         | Page 448 (C-1-2019) |
| GTIN                                 | 4055626647357       |
| Weight per piece (including packing) | 22.22 g             |
| Weight per piece (excluding packing) | 22.22 g             |
| Customs tariff number                | 85369010            |
| Country of origin                    | PL                  |

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## Technical data

### Notes

|         |  |
|---------|--|
| General | the blocks can be bridged with one another via the conductor shaft, for corresponding plug-in bridges, see accessories |
| General |  |
| Note    | The maximum load current of a single clamping unit must not be exceeded.   |

### Product properties

|                            |                            |
|----------------------------|----------------------------|
| Product type               | Distributor terminal block |
| Number of connections      | 18                         |
| Number of rows             | 1                          |
| Potentials                 | 1                          |
| Insulation characteristics |                            |
| Overvoltage category       | III                        |
| Degree of pollution        | 3                          |

### Electrical properties

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

### Connection data

|   |   |
|---|---|
| Number of connections per level   | 18  |
| Nominal cross section   | 4 mm <sup>2</sup>                         |
| Rated cross section AWG   | 12  |
| Stripping length  | 10 mm ... 12 mm                           |
| Internal cylindrical gage   | A4  |
| Connection in acc. with standard  | IEC 60998-2-2                             |
| 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> ... 4 mm <sup>2</sup> |
| Conductor cross section, flexible [AWG]   | 24 ... 12 (converted acc. to IEC)         |
| Conductor cross-section flexible (ferrule without plastic sleeve)                         | 0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup> |
| Flexible conductor cross section (ferrule with plastic sleeve)                            | 0.2 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  | 41 A                                      |
| Maximum total current   | 63 A                                      |
| Nominal voltage   | 450 V                                     |

#### Connection cross sections directly pluggable

|                               |   |
|-------------------------------|---|
| Conductor cross section rigid | 0.5 mm <sup>2</sup> ... 6 mm <sup>2</sup> |
|-------------------------------|---|

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|   |  |
|---|--|
| Conductor cross section, rigid [AWG]                              | 20 ... 10 (converted acc. to IEC)          |
| 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>  |

## Dimensions

|        |         |
|--------|---------|
| Width  | 55.4 mm |
| Height | 28.6 mm |
| Depth  | 22.7 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      |
| 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      |

## Mechanical properties

### Mechanical data

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

## Mechanical tests

### Attachment on the carrier

|        |   |
|--------|---|
| Result | Test passed   |
| Note   | <p>When aligning several blocks, it is recommended to either place a DIN rail adapter underneath the connection point or a flange element between the blocks.</p> <p>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.</p> <p>When using the DIN rail adapter PTFIX-NS35, an aligned block must not protrude by more than a half.</p> |

## Environmental and real-life conditions

### Needle-flame test

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|                  |             |
|------------------|-------------|
| 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              | $6.12 \text{ (m/s}^2\text{)}^2\text{/Hz}$      |
| 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):2018-05 |
| 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 (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 (storage/transport) | 30 % ... 70 %   |

## Standards and regulations

|                                  |               |
|----------------------------------|---------------|
| Connection in acc. with standard | IEC 60998-2-2 |
|----------------------------------|---------------|

## Mounting

|               |          |
|---------------|----------|
| Mounting type | adhesive |
|---------------|----------|

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## Drawings

Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3273980>

| DNV<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                  | -                 | -                           |

| CSA<br>Approval ID: 13631 |                       |                       |                   |                             |
|---------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                           | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| Use group B               |                       |                       |                   |                             |
|                           | 600 V                 | 32 A                  | 24 - 10           | -                           |
| Use group C               |                       |                       |                   |                             |
|                           | 600 V                 | 32 A                  | 24 - 10           | -                           |

| CB<br>IECEE CB Scheme<br>Approval ID: DE1-63087 |                       |                       |                   |                             |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
|   | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|   | 450 V                 | 32 A                  | -                 | - 4                         |

| EAC<br>Approval ID: RU C-DE.AI30.B.01102 |  |  |  |  |
|--|--|--|--|--|
|--|--|--|--|--|

| LR<br>Approval ID: LR2002627TA |  |  |  |  |
|--------------------------------|--|--|--|--|
|--------------------------------|--|--|--|--|

| BV<br>Approval ID: 59146/A0 BV |  |  |  |  |
|--------------------------------|--|--|--|--|
|--------------------------------|--|--|--|--|

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

| VDE Zeichengenehmigung<br>Approval ID: 40047798 |  |  |  |  |
|---|--|--|--|--|
|---|--|--|--|--|

| cULus Recognized<br>Approval ID: E60425 |  |  |  |  |
|---|--|--|--|--|
|---|--|--|--|--|

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|             | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|-------------|-----------------------|-----------------------|-------------------|-----------------------------|
| Use group B |                       |                       |                   |                             |
|             | 600 V                 | 32 A                  | 24 - 10           | -                           |
| Use group C |                       |                       |                   |                             |
|             | 600 V                 | 32 A                  | 24 - 10           | -                           |

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## Classifications

### ECLASS

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

### ETIM

|          |          |
|----------|----------|
| ETIM 8.0 | EC000897 |
|----------|----------|

### UNSPSC

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



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## Environmental product compliance

|            |   |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

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## Accessories

### FBS 2-6 - Plug-in bridge

3030336

<https://www.phoenixcontact.com/us/products/3030336>



Plug-in bridge, pitch: 6.2 mm, number of positions: 2, color: red

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### FBS 2-6 GY - Plug-in bridge

3032237

<https://www.phoenixcontact.com/us/products/3032237>



Plug-in bridge, pitch: 6.2 mm, number of positions: 2, color: gray

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## FBS 2-6 BU - Plug-in bridge

3036932

<https://www.phoenixcontact.com/us/products/3036932>

Plug-in bridge, pitch: 6.2 mm, number of positions: 2, color: blue



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## SK 6,2/3,8:FORTL.ZAHLEN - Marker card

0804374

<https://www.phoenixcontact.com/us/products/0804374>

Marker card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... (99)100, mounting type: adhesive, for terminal block width: 6.2 mm, lettering field size: 6.2 x 3.8 mm



# PTFIX 18X4-G BK - Distribution block

3273980

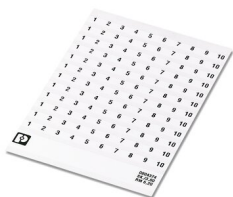
<https://www.phoenixcontact.com/us/products/3273980>



## SK 6,2/3,8:FORTL.ZAHLEN 1-10 - Marker for terminal blocks

0804374:0001

<https://www.phoenixcontact.com/us/products/0804374:0001>



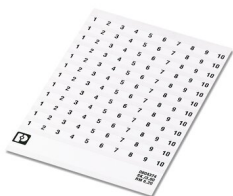
Marker card, self-adhesive, horizontally labeled with the consecutive numbers: 1 ... 10, 10-section marker strips with 12 identical decades, white, for terminal block width: 6.2 mm, mounting type: adhesive

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## SK 6,2/3,8:FORTL.ZAHLEN 11-20 - Marker for terminal blocks

0804374:0011

<https://www.phoenixcontact.com/us/products/0804374:0011>



Marker card, self-adhesive, horizontally labeled with the consecutive numbers: 11 ... 20, 10-section marker strips with 12 identical decades, white, for terminal block width: 6.2 mm, mounting type: adhesive

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## SK 6,2/3,8:FORTL.ZAHLEN 21-30 - Marker for terminal blocks

0804374:0021

<https://www.phoenixcontact.com/us/products/0804374:0021>



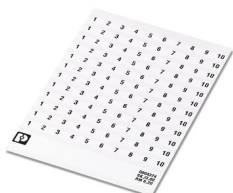
Marker card, self-adhesive, horizontally labeled with the consecutive numbers: 21 ... 30, 10-section marker strips with 12 identical decades, white, for terminal block width: 6.2 mm, mounting type: adhesive

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## SK 6,2/3,8:FORTL.ZAHLEN 31-40 - Marker for terminal blocks

0804374:0031

<https://www.phoenixcontact.com/us/products/0804374:0031>



Marker card, self-adhesive, horizontally labeled with the consecutive numbers: 31 ... 40, 10-section marker strips with 12 identical decades, white, for terminal block width: 6.2 mm, mounting type: adhesive

## PTFIX 18X4-G BK - Distribution block

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<https://www.phoenixcontact.com/us/products/3273980>



## SK 6,2/3,8:FORTL.ZAHLEN 41-50 - Marker for terminal blocks

0804374:0041

<https://www.phoenixcontact.com/us/products/0804374:0041>



Marker card, self-adhesive, horizontally labeled with the consecutive numbers: 41 ... 50, 10-section marker strips with 12 identical decades, white, for terminal block width: 6.2 mm, mounting type: adhesive

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## 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

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## 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

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## 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: 30000 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

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### 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

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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

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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

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