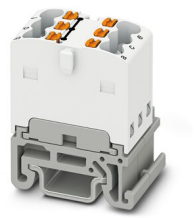
# Distribution block - PTFIX 6X1,5-NS15A WH

3002936

https://www.phoenixcontact.com/us/products/3002936

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Distribution block, the blocks can be bridged with one another via the conductor shaft, for corresponding plug-in bridges, see accessories, bridged internally, nom. voltage: 500 V, nominal current: 17.5 A, connection method: Push-in connection, cross section: 0.14 mm$^2$ - 2.5 mm$^2$, mounting type: NS 15, color: white

## Your advantages

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

## Commercial Data

| | |
|---|---|
| Item number | 3002936 |
| Packing unit | 1 pc |
| Minimum order quantity | 20 pc |
| Sales Key | B02 |
| Product Key | BEA113 |
| Catalog Page | Page 433 (C-1-2019) |
| GTIN | 4055626433486 |
| Weight per Piece (including packing) | 6.38 g |
| Weight per Piece (excluding packing) | 6.02 g |
| Customs tariff number | 85369010 |
| Country of origin | PL |

# Technical Data

## Notes

| | |
|---|---|
| Notes on operation | 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 | 6 |
| 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 | 0.56 W |

## Connection data

| | |
|---|---|
| Number of connections per level | 6 |
| Nominal cross section | 1.5 mm² |
| Rated cross section AWG | 14 |
| Stripping length | 8 mm ... 10 mm |
| Internal cylindrical gage | A1 / B1 |
| Connection in acc. with standard | IEC 60947-7-1 |
| Conductor cross section solid | 0.14 mm² ... 2.5 mm² |
| Cross section AWG | 26 ... 14 (converted acc. to IEC) |
| Conductor cross section flexible | 0.14 mm² ... 1.5 mm² |
| Conductor cross section, flexible [AWG] | 24 ... 14 (converted acc. to IEC) |
| Flexible conductor cross section flexible (ferrule, w/o plastic sleeve) | 0.14 mm² ... 1.5 mm² |
| Flexible conductor cross section (ferrule with plastic sleeve) | 0.14 mm² ... 1.5 mm² |
| Nominal current | 17.5 A |
| Maximum load current | 22 A |
| Maximum total current | 26 A |
| Nominal voltage | 500 V |

### Connection cross sections directly pluggable

| | |
|---|---|
| Conductor cross section solid | 0.34 mm² ... 2.5 mm² |
| Flexible conductor cross section flexible (ferrule, w/o plastic | 0.34 mm² ... 1.5 mm² |

| | |
|---|---|
| sleeve) | |
| Flexible conductor cross section (ferrule with plastic sleeve) | 0.34 mm² ... 1.5 mm² |

## Dimensions

| | |
|---|---|
| Width | 12.5 mm |
| Height NS 15 | 27.4 mm |
| Length | 21.6 mm |

## Material specifications

| | |
|---|---|
| Color | white |
| 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 ≤ 45 K |
| Result | Test passed |
| Short-time withstand current 1.5 mm² | 0.18 kA |
| Short-time withstand current 2.5 mm² | 0.3 kA |
| Result | Test passed |

### Power-frequency withstand voltage

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

## Mechanical properties

### Mechanical data

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

## Mechanical tests

Mechanical strength

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

Attachment on the carrier

| | |
|---|---|
| DIN rail/fixing support | NS 35/NS 15 |
| Test force setpoint | 1 N |
| Result | Test passed |
| Note | 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. |
| | 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. |
| | 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 | 0.14 mm² / 0.2 kg |
| | 1.5 mm² / 0.4 kg |
| | 2.5 mm² / 0.7 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 Hz to $f_2$ = 250 Hz |
| ASD level | 6.12 (m/s²)²/Hz |
| Acceleration | 3.12g |
| Test duration per axis | 0.0013888888889 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 (operation) | -60 °C ... 105 °C (max. short-term operating temperature RTI Elec.) |
| Ambient temperature (storage/transport) | -25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C) |
| Ambient temperature (assembly) | -5 °C ... 70 °C |
| Ambient temperature (actuation) | -5 °C ... 70 °C |
| Permissible humidity (storage/transport) | 30 % ... 70 % |

## Standards and regulations

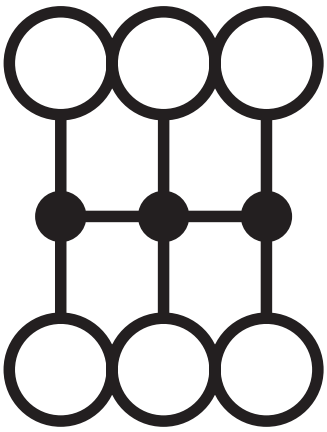
| | |
|---|---|
| Connection in acc. with standard | IEC 60947-7-1 |

## Mounting

| | |
|---|---|
| Mounting type | NS 15 |

## Drawings

Circuit diagram



## Approvals

**DNV**
Approval ID: TAE00002TT

| | Nominal Voltage $U_N$ | Nominal Current $I_N$ | Cross Section AWG | Cross Section $mm^2$ |
|---|---|---|---|---|
| | 500 V | 24 A | - | - |

**CSA**
Approval ID: 13631

| | Nominal Voltage $U_N$ | Nominal Current $I_N$ | Cross Section AWG | Cross Section $mm^2$ |
|---|---|---|---|---|
| Use group B | | | | |
| | 300 V | 20 A | 26 - 12 | - |
| Use group C | | | | |
| | 150 V | 20 A | 26 - 12 | - |
| Use group D | | | | |
| | 300 V | 10 A | 26 - 12 | - |

**IECEE CB Scheme**
Approval ID: DE1-62701

| | Nominal Voltage $U_N$ | Nominal Current $I_N$ | Cross Section AWG | Cross Section $mm^2$ |
|---|---|---|---|---|
| | 500 V | 17.5 A | - | - 1.5 |

**EAC**
Approval ID: RU C-DE.BL08.B.00644

**LR**
Approval ID: LR2002627TA

**BV**
Approval ID: 59146/A0 BV

**VDE Zeichengenehmigung**
Approval ID: 40047797

**cULus Recognized**
Approval ID: E60425

| | Nominal Voltage $U_N$ | Nominal Current $I_N$ | Cross Section AWG | Cross Section $mm^2$ |
|---|---|---|---|---|
| Use group B | | | | |
| | 300 V | 20 A | 26 - 12 | - |

| | | | | |
|---|---|---|---|---|
| Use group C | | | | |
| | 150 V | 20 A | 26 - 12 | - |
| Use group F | | | | |
| | 500 V | 20 A | 26 - 12 | - |
| Use group D | | | | |
| | 300 V | 10 A | 26 - 12 | - |

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-9.0 | 27141120 |
| ECLASS-10.0.1 | 27141120 |
| ECLASS-11.0 | 27141120 |

### ETIM

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

### UNSPSC

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

## Environmental Product Compliance

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

## Accessories

Note: Applying some accessories below might limit this product.

### Plug-in bridge

Plug-in bridge - FBS 2-4 - 3030116

https://www.phoenixcontact.com/us/products/3030116



Plug-in bridge, pitch: 4.2 mm, color: red

Max. current carrying capacity: 17.5 A

### Plug-in bridge

Plug-in bridge - FBS 2-4 BU - 3030117

https://www.phoenixcontact.com/us/products/3030117



Plug-in bridge, pitch: 4.2 mm, color: blue

Max. current carrying capacity: 17.5 A

## Plug-in bridge

Plug-in bridge - FBS 2-4 GY - 3030118

https://www.phoenixcontact.com/us/products/3030118



Plug-in bridge, pitch: 4.2 mm, color: gray

Max. current carrying capacity: 17.5 A

## Accessories

Accessories - MPS-MT 1-S4-B RD - 1982800

https://www.phoenixcontact.com/us/products/1982800

Test plug terminal block, Accessories



## Insulating sleeve

Insulating sleeve - ISH 1,5/0,2 - 3206131

https://www.phoenixcontact.com/us/products/3206131



Insulating sleeve, color: white

## Insulating sleeve

Insulating sleeve - ISH 1,5/0,5 - 3031034

https://www.phoenixcontact.com/us/products/3031034

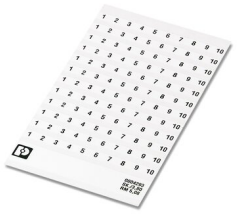


Insulating sleeve, color: gray

## Marker card

Marker card - SK 3,8 REEL P4,15 WH CUS - 0825990

https://www.phoenixcontact.com/us/products/0825990



Marker card, can be ordered: by card, white, labeled according to customer specifications, mounting type: adhesive, for terminal block width: 4.15 mm, lettering field size: continuous x 3.8 mm

## Marking foil for zack marker strip

Marking foil for zack marker strip - TML (EX3,8)R - 0801837

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



Marking foil for zack marker strip, Roll, white, unlabeled, can be labeled with: 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: 30000 x 3. 8 mm, Number of individual labels: 1

## Marking foil for zack marker strip

Marking foil for zack marker strip - TML (104X3,8)R - 0801833

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



Marking foil for zack marker strip, Roll, white, unlabeled, can be labeled with: 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

## Marking foil for zack marker strip

Marking foil for zack marker strip - TML (104X2,8)R - 0801832

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



Marking foil for zack marker strip, Roll, white, unlabeled, can be labeled with: 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

## Marking foil for zack marker strip

Marking foil for zack marker strip - TML (EX2,8)R - 0801836

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

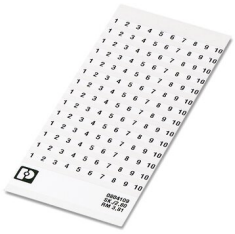


Marking foil for zack marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 30000 mm, lettering field size: 30000 x 2. 8 mm, Number of individual labels: 1

## Marker card

Marker card - SK 2,8 REEL P4,15 WH CUS - 8199987

https://www.phoenixcontact.com/us/products/8199987



Marker card, can be ordered: by card, white, labeled according to customer specifications, mounting type: adhesive, for terminal block width: 4.15 mm, lettering field size: continuous x 2.8 mm

## Marker for terminal blocks

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

## Marker for terminal blocks

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

## Marker card

Marker card - SK U/3,8 WH:UNBEDRUCKT - 0803906

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



Marker card, Sheet, 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

## Marker card

Marker card - SK U/2,8 WH:UNBEDRUCKT - 0803883

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



Marker card, Sheet, 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

## Label

Label - MM-TML (EX3,8)R C1 WH/BK - 1092026

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



Label, Roll, white, unlabeled, can be labeled with: THERMOFOX, THERMOMARK GO, THERMOMARK GO.K, mounting type: adhesive, for terminal block width: 8000 mm, lettering field size: continuous x 2.8 mm


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