

PTFIX 4X1,5 BK - Distribution block



1046616
<https://www.phoenixcontact.com/us/products/1046616>

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Distribution block, bridged internally, nom. voltage: 450 V, nominal current: 17.5 A, number of connections: 4, connection method: Push-in connection, cross section: 0.14 mm² - 2.5 mm², mounting type: for snapping onto a DIN rail adapter, Direct mounting with flange, Free-hanging, color: black

Your advantages

- Convenient test options, thanks to test openings at every terminal point
- Space-saving potential distribution, thanks to compact micro potential distributors
- Flexible use, thanks to direct mounting with flange covers from accessories
- Space-saving, thanks to the compact design
- Clear arrangement thanks to marking of all terminal points

Commercial data

Item number	1046616
Packing unit	30 pc
Minimum order quantity	30 pc
Sales key	BE09
Product key	BEA112
Catalog page	Page 429 (C-1-2019)
GTIN	4055626643618
Weight per piece (including packing)	3.63 g
Weight per piece (excluding packing)	3.63 g
Customs tariff number	85369010
Country of origin	PL

PTFIX 4X1,5 BK - Distribution block



1046616

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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
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General

Note	The maximum load current of a single clamping unit must not be exceeded.
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Product properties

Product type	Distributor terminal block
Number of connections	4
Number of rows	1
Potentials	1

Data management status

Article revision	02
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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	4
Nominal cross section	1.5 mm ²
Rated cross section AWG	14
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A2 / B1
Connection in acc. with standard	IEC 60998-2-2
Conductor cross section rigid	0.14 mm ² ... 2.5 mm ²
Cross section AWG	26 ... 14 (converted acc. to IEC)
Conductor cross section flexible	0.14 mm ² ... 1.5 mm ²
Conductor cross section, flexible [AWG]	26 ... 16 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm ² ... 1.5 mm ²
Flexible conductor cross section (ferrule with plastic sleeve)	0.14 mm ² ... 1.5 mm ²
Nominal current	17.5 A
Maximum load current	22 A
Maximum total current	26 A
Nominal voltage	450 V

Connection cross sections directly pluggable

PTFIX 4X1,5 BK - Distribution block



1046616

<https://www.phoenixcontact.com/us/products/1046616>

Conductor cross section rigid	0.34 mm² ... 2.5 mm²
Conductor cross section, rigid [AWG]	26 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.34 mm² ... 1.5 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	0.34 mm² ... 1.5 mm²

Dimensions

Width	8.3 mm
Height	21.6 mm
Depth	17.7 mm

Material specifications

Color	black (RAL 9005)
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

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
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Mechanical tests

PTFIX 4X1,5 BK - Distribution block



1046616

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Mechanical strength

Result	Test passed
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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 mm ² / 0.2 kg
	1.5 mm ² / 0.4 kg
	2.5 mm ² / 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	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	6.12 (m/s ²) ² /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

PTFIX 4X1,5 BK - Distribution block



1046616

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Shock duration	18 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
Result	Test passed

Ambient conditions

Ambient temperature (operation)	-60 °C ... 110 °C (Operating temperature range incl. self-heating; for max. short-term operating temperature, see RTI Elec.)
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 60998-2-2
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Mounting

Mounting type	for snapping onto a DIN rail adapter
	Direct mounting with flange
	Free-hanging

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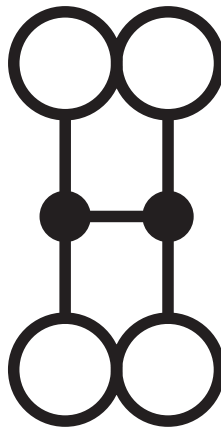
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Drawings

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1046616>

DNV Approval ID: TAE00002TT-04				
	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	-

CB IECEE CB Scheme Approval ID: DE1-63083				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	450 V	17.5 A	-	- 1.5

EAC Approval ID: RU C-DE.BL08.B.00644				
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LR Approval ID: LR2002627TA				
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BV Approval ID: 59146/A0 BV				
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VDE Zeichengenehmigung Approval ID: 40047798				
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cULus Recognized Approval ID: E60425				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				

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	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	-

PTFIX 4X1,5 BK - Distribution block



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Classifications

ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250118

ETIM

ETIM 9.0	EC000897
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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%

PTFIX 4X1,5 BK - Distribution block



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Accessories

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

FBS 2-4 - Plug-in bridge

3030116

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



Plug-in bridge, pitch: 4.2 mm, number of positions: 2, color: red

i Max. current carrying capacity: 17.5 A

FBS 2-4 GY - Plug-in bridge

3030118

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



Plug-in bridge, pitch: 4.2 mm, number of positions: 2, color: gray

i Max. current carrying capacity: 17.5 A

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FBS 2-4 BU - Plug-in bridge

3030117

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



Plug-in bridge, pitch: 4.2 mm, number of positions: 2, color: blue

 Max. current carrying capacity: 17.5 A

PTFIX 1,5-F - Flange

1049503

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Flange, with screw-on fixing, depth: 17.7 mm, width: 7.7 mm, height: 21.6 mm, color: gray, mounting type: Screw mounting

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PTFIX 1,5-NS15A - DIN rail adapter

1049500

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DIN rail adapter, depth: 10.85 mm, width: 8 mm, height: 21.6 mm



PTFIX 1,5-NS35 - DIN rail adapter

1049497

<https://www.phoenixcontact.com/us/products/1049497>

DIN rail adapter, depth: 11 mm, width: 21.6 mm, height: 58.1 mm



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PTFIX 1,5-NS35AD - DIN rail adapter

1049498

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DIN rail adapter, for NS 35 for accommodating two rows of PTFIX 1,5 distribution blocks, depth: 10.9 mm, width: 8 mm, height: 44.4 mm

PTFIX 1,5-RZF - Mounting adapter

1050613

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Adapter for direct mounting

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PTFIX 1,5-RZ - Mounting adapter

1632415

<https://www.phoenixcontact.com/us/products/1632415>

Securing pin adapter, for direct mounting of 1.5 mm² FIX blocks, color: gray



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

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

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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: continuous x 3.8 mm, Number of individual labels: 12

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

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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: 104 mm, lettering field size: 104 x 2.8 mm, Number of individual labels: 2500

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

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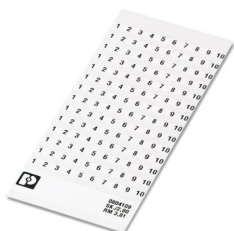
<https://www.phoenixcontact.com/us/products/1046616>



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

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

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

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

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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ISH 1,5/0,2 - Insulating sleeve

3206131

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

Insulating sleeve, color: white



ISH 1,5/0,5 - Insulating sleeve

3031034

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

Insulating sleeve, color: gray



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MPS-MT 1-S4-B RD - Accessories

1982800

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Test plug terminal block



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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com