PTFIX 2X1,5-FE - Monoblock

1045933

https://www.phoenixcontact.com/us/products/1045933

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Monoblock, Basic terminal block, nom. voltage: 450 V, nominal current: 17.5 A, number of connections: 2, connection method: Push-in connection, cross section: 0.14 mm^2 - 2.5 mm^2, mounting type: for snapping onto a DIN rail adapter, Direct mounting with flange, Free-hanging, color: black/yellow

Your advantages

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

Commercial data

Item number	1045933
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE09
Product key	BEA111
Catalog page	Page 430 (C-1-2019)
GTIN	4055626639512
Weight per piece (including packing)	1.94 g
Weight per piece (excluding packing)	1.906 g
Customs tariff number	85369010
Country of origin	PL

Technical data

Product properties

Product type	Distributor terminal block
Number of connections	2
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	2
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 60998-2-2
Conductor cross section rigid	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]	26 ... 16 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without 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	21 A (with a 2.5 mm² conductor cross section)
Maximum total current	21 A
Nominal voltage	450 V

Connection cross sections directly pluggable

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	4.2 mm
Height	21.6 mm
Depth	17.7 mm

Material specifications

Color	black/yellow
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	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, the foot elements should be placed in a way that maximum 2 blocks are free-hanging in between. Flange elements should be placed after every 9 blocks and with engagement pins after every 12 blocks.
	Depending on the application case and mechanical load, other arrangements of the mounting accessory can also be chosen.
	One PTFIX 1,5-NS35 DIN rail adapter is suitable for a maximum of 13 blocks.

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 $(m/s^2)^2/Hz$
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
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

Mounting

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

Drawings

Circuit diagram



Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1045933

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	-

IECEE CB Scheme
Approval ID: DE1-63083

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

LR
Approval ID: LR2002627TA

BV
Approval ID: 59146/A0 BV

VDE Zeichengenehmigung
Approval ID: 40047798

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-11.0	27141120
ECLASS-13.0	27250118

ETIM

ETIM 9.0	EC000897

UNSPSC

UNSPSC 21.0	39121400

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%

Accessories

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

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

Max. current carrying capacity: 17.5 A

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

https://www.phoenixcontact.com/us/products/1049503



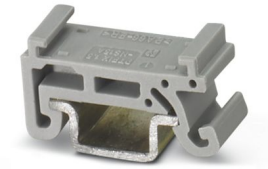
Flange, with screw-on fixing, depth: 17.7 mm, width: 7.7 mm, height: 21.6 mm, color: gray, mounting type: Screw mounting

PTFIX 1,5-NS15A - DIN rail adapter

1049500

https://www.phoenixcontact.com/us/products/1049500

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



PTFIX 1,5-NS35AD - DIN rail adapter

1049498

https://www.phoenixcontact.com/us/products/1049498



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

https://www.phoenixcontact.com/us/products/1050613

Adapter for direct mounting



PTFIX 1,5-RZ - Mounting adapter

1632415

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

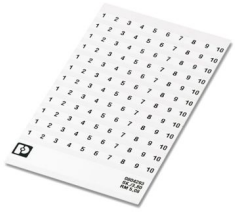
Securing pin adapter, for direct mounting of 1.5 mm^2 FIX blocks, color: gray



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

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

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

TML (EX2,8)R - Marker strip

0801836

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

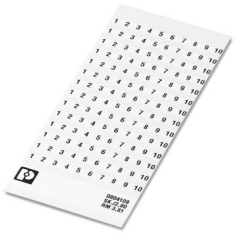


Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 30000 mm, lettering field size: continuous x 2.8 mm, Number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

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

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

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

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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