

PTFIX 2X1,5 BK - Monoblock



1045937

<https://www.phoenixcontact.com/us/products/1045937>

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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 mm² - 2.5 mm², mounting type: for snapping onto a DIN rail adapter, Direct mounting with flange, Free-hanging, color: black

Commercial data

Item number	1045937
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE09
Product key	BEA111
GTIN	4055626639062
Weight per piece (including packing)	1.898 g
Weight per piece (excluding packing)	1.898 g
Customs tariff number	85369010
Country of origin	PL

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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 mm ²
Rated cross section AWG	14
Connection method	Push-in connection
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 mm ² ... 2.5 mm ²
Cross section AWG	26 ... 14 (converted acc. to IEC)
Conductor cross-section flexible	0.14 mm ² ... 2.5 mm ²
Conductor cross-section, flexible [AWG]	26 ... 14 (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	21 A (with a 2.5 mm ² conductor cross-section)
Maximum total current	21 A
Nominal voltage	450 V

Connection cross sections directly pluggable

Conductor cross-section rigid	0.34 mm ² ... 2.5 mm ²
Conductor cross-section, rigid [AWG]	26 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.34 mm ² ... 1.5 mm ²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.34 mm ² ... 1.5 mm ²

Dimensions

Width	4.2 mm
Height	21.6 mm

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Depth	17.7 mm
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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
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 mm ²	0.18 kA
Short-time withstand current 2.5 mm ²	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

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

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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 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	Long 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
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

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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, 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 (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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Drawings

Circuit diagram



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Approvals

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DNV Approval ID: TAE00002TT-05				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	500 V	24 A	-	-

CSA Approval ID: 13631				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				
	300 V	20 A	26 - 12	-
C				
	150 V	20 A	26 - 12	-
D				
	300 V	10 A	26 - 12	-

CB IECEE CB Scheme Approval ID: DE1-63083				
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EAC EAC Approval ID: RU C-DE.BL08.B.00644				
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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
B				
	300 V	20 A	26 - 12	-
C				
	150 V	20 A	26 - 12	-
F				
	500 V	20 A	26 - 12	-
D				
	300 V	10 A	26 - 12	-

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Classifications

ECLASS

ECLASS-13.0	27250118
ECLASS-15.0	27250118

ETIM

ETIM 10.0	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
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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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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com