PTFIX 2X2,5-FE - Monoblock

1028078

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Monoblock, Basic terminal block, nom. voltage: 450 V, nominal current: 24 A, number of connections: 2, connection method: Push-in connection, cross section: 0.14 mm² - 4 mm², mounting type: for snapping onto a DIN rail adapter, Direct mounting with flange, Free-hanging, color: black/yellow

Your advantages

- Clear wiring, thanks to eleven different color variants
- Time-saving conductor connection, thanks to tool-free Push-in direct connection technology
- Flexible use, thanks to DIN rail mounting, direct mounting or adhesive mounting
- Space savings of up to 50 % on the DIN rail, thanks to transverse mounting

Commercial data

Item number	1028078
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE09
Product key	BEA111
GTIN	4055626524900
Weight per piece (including packing)	3.985 g
Weight per piece (excluding packing)	3.333 g
Customs tariff number	85369010
Country of origin	PL

Technical data

Notes

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	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	0.77 W

Connection data

Number of connections per level	2
Nominal cross section	2.5 mm²
Rated cross section AWG	12
Connection method	Push-in connection
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A3
Connection in acc. with standard	IEC 60998-2-2
Conductor cross-section rigid	0.14 mm² ... 4 mm²
Cross section AWG	26 ... 12 (converted acc. to IEC)
Conductor cross-section flexible	0.14 mm² ... 4 mm²
Conductor cross-section, flexible [AWG]	26 ... 12 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm² ... 2.5 mm²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.14 mm² ... 2.5 mm²
Nominal current	24 A
Maximum load current	27 A
Nominal voltage	450 V

Connection cross sections directly pluggable

Conductor cross-section rigid	0.34 mm² ... 4 mm²
Conductor cross-section, rigid [AWG]	24 ... 12 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.34 mm² ... 2.5 mm²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.34 mm² ... 2.5 mm²

Dimensions

Width	5.2 mm
Height	28.6 mm
Depth	21.7 mm

Material specifications

Color	multicolored (RAL -)
	black (RAL 9005)
	yellow (RAL 1018)
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

Electrical tests

Surge voltage test

Test voltage setpoint	9.8 kV
Result	Test passed

Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
Short-time withstand current 2.5 mm²	0.3 kA
Short-time withstand current 4 mm²	0.48 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
Test force setpoint	1 N
Result	Test passed
Note	When aligning several blocks, the foot elements should be placed in a way that maximum 5 blocks are free-hanging in between. Flange elements should be placed after every 9 blocks.
	Depending on the application case and mechanical load, other arrangements of the mounting accessory can also be chosen.
	One DIN rail adapter PTFIX-NS35 is intended for maximum 11 blocks.

Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
Conductor cross-section/weight	0.14 mm² / 0.2 kg
	2.5 mm² / 0.7 kg
	4 mm² / 0.9 kg
Result	Test passed

Environmental and real-life conditions

Aging

Temperature cycles	192
Result	Test passed

Needle-flame test

Result	Test passed

Oscillation/broadband noise

Specification	DIN EN 50155 (VDE 0115-200):2008-03
Spectrum	Long 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	5 h
Test directions	X-, Y- and Z-axis
Result	Test passed

Shocks

Specification	DIN EN 50155 (VDE 0115-200):2008-03
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, 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

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/1028078

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				
	300 V	20 A	26 - 12	-
D				
	600 V	5 A	26 - 12	-

IECEE CB Scheme
Approval ID: DE1-63085

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	450 V	24 A	-	- 2.5

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

EAC
Approval ID: RU C-DE.BE.B.03378

VDE Zeichengenehmigung
Approval ID: 40047798

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	450 V	24 A	-	0.2 - 2.5

EAC
Approval ID: KZ7500651131219505

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				
	300 V	20 A	26 - 12	-
F				
	600 V	20 A	26 - 12	-
D				
	600 V	5 A	26 - 12	-

Classifications

ECLASS

ECLASS-13.0	27250118
ECLASS-15.0	27250118

ETIM

ETIM 10.0	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%

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