MSB 2,5 - Mini feed-through terminal block

3244012

https://www.phoenixcontact.com/us/products/3244012

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Mini feed-through terminal block, nom. voltage: 800 V, nominal current: 24 A, number of connections: 2, connection method: Spring-cage connection, Rated cross section: 2.5 mm^2, cross section: 0.08 mm^2 - 4 mm^2, mounting type: NS 15, color: gray

Your advantages

- Can be used in smaller terminal boxes
- Space saving thanks to compact design and mounting option on a 15 mm DIN rail
- Clear arrangement thanks to marking of all terminal points

Commercial data

Item number	3244012
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE02
Product key	BE2161
GTIN	4046356145145
Weight per piece (including packing)	4.04 g
Weight per piece (excluding packing)	3.68 g
Customs tariff number	85369010
Country of origin	CN

Technical data

Product properties

Product type	Miniature 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	8 kV
Maximum power dissipation for nominal condition	0.77 W

Connection data

Number of connections per level	2
Nominal cross section	2.5 mm²

Level 1 above 1 below 1

Connection method	Spring-cage connection
Stripping length	8 mm
Internal cylindrical gage	A3
Connection in acc. with standard	IEC 60947-7-1
Conductor cross-section rigid	0.08 mm² ... 4 mm²
Cross section AWG	28 ... 12 (converted acc. to IEC)
Conductor cross-section flexible	0.08 mm² ... 2.5 mm²
Conductor cross-section, flexible [AWG]	28 ... 14 (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
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm²
Nominal cross section	2.5 mm²
Nominal current	24 A
Maximum load current	30 A (with 4 mm² conductor cross-section)
Nominal voltage	800 V
Connection in acc. with standard	IEC/EN 60079-7
Cross section AWG	28 ... 12 (converted acc. to IEC)
Conductor cross-section, flexible [AWG]	28 ... 14 (converted acc. to IEC)

Ex data

Rated data (ATEX/IECEx)

Identification	Ⓔx II 2 G Ex eb IIC Gb

Operating temperature range	-60 °C ... 110 °C
Ex-certified accessories	3024177 D-MZB 1,5
	1204517 SZF 1-0,6X3,5
	3022263 CLIPFIX 15
	3022276 CLIPFIX 35-5
Ex temperature increase	40 K (21.3 A / 2.5 mm²)
Rated insulation voltage	630 V
output	(Permanent)

Ex level General

Rated voltage	690 V
Rated current	21 A
Maximum load current	26 A
Contact resistance	0.87 mΩ

Ex connection data General

Nominal cross section	2.5 mm²
Rated cross section AWG	14
Connection capacity rigid	0.08 mm² ... 4 mm²
Connection capacity AWG	28 ... 12
Connection capacity flexible	0.08 mm² ... 2.5 mm²
Connection capacity AWG	28 ... 14

Dimensions

Width	5.2 mm
End cover width	4 mm
Height	32 mm
Depth	22 mm
Depth on NS 15	30 mm

Material specifications

Color	gray (RAL 7042)
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

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	2 kV
Result	Test passed

Mechanical properties

Mechanical data

Open side panel	Yes

Mechanical tests

Mechanical strength

Result	Test passed

Attachment on the carrier

DIN rail/fixing support	NS 15
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
Conductor cross-section/weight	0.08 mm² / 0.1 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

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 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

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.)

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 60947-7-1
	IEC/EN 60079-7

Mounting

Mounting type	NS 15

Drawings

Circuit diagram

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/3244012

CSA
Approval ID: 13631

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				
	600 V	20 A	28 - 12	-
C				
	600 V	20 A	28 - 12	-

IECEE CB Scheme
Approval ID: DE1-62820

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

VDE Zeichengenehmigung
Approval ID: 40029769

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

cULus Recognized
Approval ID: E60425

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				
	600 V	20 A	28 - 12	-
C				
	600 V	20 A	28 - 12	-

DNV
Approval ID: TAE00001CS

IECEx
Approval ID: IECExPTB08.0048U

ATEX
Approval ID: PTB08ATEX1075U

UKCA-EX
Approval ID: CSAE 22UKEX1245U

CCC
Approval ID: 2020322313000629

EAC Ex
Approval ID: KZ 7500525010101950

Classifications

ECLASS

ECLASS-13.0	27250101
ECLASS-15.0	27250101

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%

EF3.1 Climate Change

CO2e kg	0.049 kg CO2e

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