MSDB 2,5-M - Mini feed-through terminal block

3244258

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Mini feed-through terminal block, nom. voltage: 800 V, nominal current: 24 A, number of connections: 4, connection method: Spring-cage connection, Rated cross section: 2.5 mm^2, 1 level, cross section: 0.08 mm^2 - 4 mm^2, mounting type: Direct mounting with flange, color: gray

Your advantages

- Space saving thanks to compact design and mounting option on a 15 mm DIN rail
- Clear arrangement thanks to marking of all terminal points
- Easy potential distribution thanks to standardized plug-in bridges

Commercial data

Item number	3244258
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE02
Product key	BE2163
GTIN	4046356145657
Weight per piece (including packing)	7.04 g
Weight per piece (excluding packing)	6.893 g
Customs tariff number	85369010
Country of origin	CN

Technical data

Product properties

Product type	Miniature terminal block
Number of connections	4
Number of rows	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

1 level

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
	3024180 D-MSB 1,5-F
	1204517 SZF 1-0,6X3,5
List of bridges	Insertion bridge / ESB 2-MZDB / 3029703
Bridge data	21 A (2.5 mm²)
Ex temperature increase	40 K (21.3 A / 2.5 mm²)
Rated insulation voltage when mounting on DIN rails	630 V
Rated insulation voltage when directly mounted on mounting surface	500 V
output	(Permanent)

Ex level General

Rated voltage when mounting on DIN rails	690 V
Rated voltage during direct mounting on mounting surface	550 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	10.4 mm
End cover width	4 mm
Height	32 mm
Depth	22 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

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	2 kV
Result	Test passed

Mechanical properties

Mechanical data

Open side panel	Yes

Mechanical tests

Mechanical strength

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):2008-03
Spectrum	Long life test category 1, class B, body mounted
Frequency	f_1 = 5 Hz to f_2 = 150 Hz
ASD level	1.857 $(m/s^2)^2/Hz$
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	5g
Shock duration	30 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

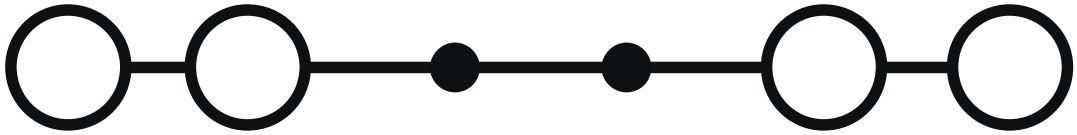
Connection in acc. with standard	IEC 60947-7-1
	IEC/EN 60079-7

Mounting

Mounting type	Direct mounting with flange

Drawings

Circuit diagram



Approvals

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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

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	-

VDE approval of drawings
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

DNV
Approval ID: TAE00001CS

CCC
Approval ID: 2020322313000629

EAC Ex
Approval ID: KZ 7500525010101950

IECEx
Approval ID: IECExPTB08.0048U

ATEX
Approval ID: PTB08ATEX1075U

UKCA-EX
Approval ID: CSAE 22UKEX1245U

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	0.077 kg CO2e

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