

## Double-mini flange terminal block - MSDBV 2,5-F - 3249172

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Double-mini flange terminal block, Connection method: Spring-cage connection, Cross section: 0.08 mm<sup>2</sup> - 4 mm<sup>2</sup>, AWG: 28 - 12, Width: 10.4 mm, Height: 22 mm, Color: gray, Mounting type: Screw mounting

### Product Features

- 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



### Key Commercial Data

Packing unit	1 pc
Minimum order quantity	50 pc
Weight per Piece (excluding packing)	6.4 g
Custom tariff number	85369010
Country of origin	China

### Technical data

#### General

Number of levels	1
Number of connections	4
Nominal cross section	2.5 mm <sup>2</sup>
Color	gray
Insulating material	PA
Flammability rating according to UL 94	V0
Rated surge voltage	8 kV
Degree of pollution	3
Overvoltage category	III
Insulating material group	I

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### Technical data

#### General

Connection in acc. with standard	IEC 60947-7-1
Maximum load current	30 A (with 4 mm <sup>2</sup> conductor cross section)
Nominal current I <sub>N</sub>	24 A
Nominal voltage U <sub>N</sub>	800 V
Open side panel	Yes
Shock protection test specification	DIN EN 50274 (VDE 0660-514):2002-11
Back of the hand protection	guaranteed
Finger protection	guaranteed
Result of surge voltage test	Test passed
Surge voltage test setpoint	9.8 kV
Result of power-frequency withstand voltage test	Test passed
Power frequency withstand voltage setpoint	2 kV
Result of the test for mechanical stability of terminal points (5 x conductor connection)	Test passed
Result of bending test	Test passed
Bending test rotation speed	10 rpm
Bending test turns	135
Bending test conductor cross section/weight	0.08 mm <sup>2</sup> / 0.1 kg
	2.5 mm <sup>2</sup> / 0.7 kg
	4 mm <sup>2</sup> / 0.9 kg
Tensile test result	Test passed
Conductor cross section tensile test	0.08 mm <sup>2</sup>
Tractive force setpoint	5 N
Conductor cross section tensile test	2.5 mm <sup>2</sup>
Tractive force setpoint	50 N
Conductor cross section tensile test	4 mm <sup>2</sup>
Tractive force setpoint	60 N
Result of voltage-drop test	Test passed
Requirements, voltage drop	≤ 3.2 mV
Result of temperature-rise test	Test passed
Short circuit stability result	Test passed
Conductor cross section short circuit testing	2.5 mm <sup>2</sup>
Short-time current	0.3 kA
Conductor cross section short circuit testing	4 mm <sup>2</sup>
Short-time current	0.48 kA
Result of aging test	Test passed
Ageing test for screwless modular terminal block temperature cycles	192

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### Technical data

#### General

Result of thermal test	Test passed
Proof of thermal characteristics (needle flame) effective duration	30 s
Oscillation, broadband noise test result	Test passed
Test specification, oscillation, broadband noise	DIN EN 50155 (VDE 0115-200):2008-03
Test spectrum	Service life test category 1, class B, body mounted
Test frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
ASD level	0.02 g <sup>2</sup> /Hz
Acceleration	0,8 g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Shock test result	Test passed
Test specification, shock test	DIN EN 50155 (VDE 0115-200):2008-03
Shock form	Half-sine
Acceleration	5 g
Shock duration	30 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
Relative insulation material temperature index (Elec., UL 746 B)	130 °C
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	130 °C
Static insulating material application in cold	-60 °C

#### Dimensions

Width	10.4 mm
End cover width	4 mm
Length	32 mm
Height	22 mm

#### Connection data

Connection method	Spring-cage connection
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section solid min.	0.08 mm <sup>2</sup>
Conductor cross section solid max.	4 mm <sup>2</sup>
Conductor cross section AWG min.	28
Conductor cross section AWG max.	12
Conductor cross section flexible min.	0.08 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Min. AWG conductor cross section, flexible	28
Max. AWG conductor cross section, flexible	14

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### Technical data

#### Connection data

Conductor cross section flexible, with ferrule without plastic sleeve min.	0.14 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve max.	2.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.14 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve max.	2.5 mm <sup>2</sup>
2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, max.	0.5 mm <sup>2</sup>
Connection in acc. with standard	IEC/EN 60079-7
Stripping length	8 mm

#### Standards and Regulations

Connection in acc. with standard	CSA
	IEC 60947-7-1
Flammability rating according to UL 94	V0

### Classifications

#### eCl@ss

eCl@ss 4.0	27141117
eCl@ss 4.1	27141117
eCl@ss 5.0	27141126
eCl@ss 5.1	27141126
eCl@ss 6.0	27141126
eCl@ss 7.0	27141126
eCl@ss 8.0	27149214

#### ETIM

ETIM 2.0	EC000902
ETIM 3.0	EC000902
ETIM 4.0	EC000902
ETIM 5.0	EC000897

#### UNSPSC

UNSPSC 6.01	30211811
UNSPSC 7.0901	39121410
UNSPSC 11	39121410
UNSPSC 12.01	39121410
UNSPSC 13.2	39121410

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## Approvals

### Approvals

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#### Approvals

UL Recognized / cUL Recognized / CSA / VDE Zeichengenehmigung / IEC/IEE CB Scheme / EAC / cULus Recognized

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#### Ex Approvals

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#### Approvals submitted

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### Approval details

UL Recognized 

	B	C	D
mm <sup>2</sup> /AWG/kcmil	28-12	28-12	28-12
Nominal current I <sub>N</sub>	20 A	20 A	5 A
Nominal voltage U <sub>N</sub>	300 V	300 V	600 V

cUL Recognized 

	B	C	D
mm <sup>2</sup> /AWG/kcmil	28-12	28-12	28-12
Nominal current I <sub>N</sub>	20 A	20 A	5 A
Nominal voltage U <sub>N</sub>	300 V	300 V	600 V

CSA 

	B	C	D
mm <sup>2</sup> /AWG/kcmil	28-12	28-12	28-12
Nominal current I <sub>N</sub>	20 A	20 A	20 A
Nominal voltage U <sub>N</sub>	600 V	600 V	600 V

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## Approvals

VDE Zeichengenehmigung

mm <sup>2</sup> /AWG/kcmil	0.2-2.5
Nominal current I <sub>N</sub>	24 A
Nominal voltage U <sub>N</sub>	800 V

IECEE CB Scheme

mm <sup>2</sup> /AWG/kcmil	0.2-2.5
Nominal voltage U <sub>N</sub>	800 V

EAC

cULus Recognized

## Drawings

Circuit diagram



Dimensional drawing

