

## Mini feed-through terminal block - MZFKK 1,5 - 3029813

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Mini feed-through terminal block, connection method: Spring-cage connection, cross section: 0.14 mm<sup>2</sup> - 2.5 mm<sup>2</sup>, AWG: 26 - 14, width: 5.2 mm, color: gray, mounting type: NS 35/7,5, NS 35/15, NS 15

### Your advantages

- ✓ Each terminal point can be labeled
- ✓ 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	50 pc
GTIN	 4 017918 187149
GTIN	4017918187149

### Technical data

#### General

Number of levels	2
Number of connections	4
Nominal cross section	1.5 mm <sup>2</sup>
Color	gray
Insulating material	PA
Flammability rating according to UL 94	V0
Rated surge voltage	6 kV
Degree of pollution	3
Overvoltage category	III
Insulating material group	I
Maximum power dissipation for nominal condition	0.56 W (the value is multiplied when connecting multiple levels)
Connection in acc. with standard	IEC 60947-7-1

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## Technical data

### General

Nominal current $I_N$	17.5 A
Maximum load current	24 A (with a 2.5 mm <sup>2</sup> conductor cross section)
Nominal voltage $U_N$	500 V
Open side panel	Yes
Shock protection test specification	IEC 60529:2001-02
Back of the hand protection	guaranteed
Finger protection	guaranteed
Result of surge voltage test	Test passed
Surge voltage test setpoint	7.3 kV
Result of power-frequency withstand voltage test	Test passed
Power frequency withstand voltage setpoint	1.89 kV
Checking the 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	0.2 mm <sup>2</sup> / 0.2 kg
	1.5 mm <sup>2</sup> / 0.4 kg
	2.5 mm <sup>2</sup> / 0.7 kg
Tensile test result	Test passed
Conductor cross section tensile test	0.2 mm <sup>2</sup>
Tractive force setpoint	10 N
Conductor cross section tensile test	1.5 mm <sup>2</sup>
Tractive force setpoint	40 N
Conductor cross section tensile test	2.5 mm <sup>2</sup>
Tractive force setpoint	50 N
Result of tight fit on support	Test passed
Tight fit on carrier	NS 35/NS 15
Setpoint	1 N
Result of voltage-drop test	Test passed
Requirements, voltage drop	≤ 3.2 mV
Requirement, voltage drop 2nd level	≤ 3.2 mV
Result of temperature-rise test	Test passed
Short circuit stability result	Test passed
Conductor cross section short circuit testing	1.5 mm <sup>2</sup>
Short-time current	0.18 kA
Conductor cross section short circuit testing	2.5 mm <sup>2</sup>
Short-time current	0.3 kA
Result of aging test	Test passed
Ageing test for screwless modular terminal block temperature cycles	192
Result of thermal test	Test passed

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## Technical data

### General

Proof of thermal characteristics (needle flame) effective duration	30 s
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
Behavior in fire for rail vehicles (DIN 5510-2)	Test passed
Flame test method (DIN EN 60695-11-10)	V0
Oxygen index (DIN EN ISO 4589-2)	>32 %
NF F16-101, NF F10-102 Class I	2
NF F16-101, NF F10-102 Class F	2
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
Calorimetric heat release NFPA 130 (ASTM E 1354)	28 MJ/kg
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

### Dimensions

Width	5.2 mm
Length	67.5 mm
Height NS 15	42 mm
Height NS 35/7,5	42.5 mm
Height NS 35/15	50 mm

### Connection data

Connection method	Spring-cage connection
Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section flexible min.	0.14 mm <sup>2</sup>
Conductor cross section flexible max.	1.5 mm <sup>2</sup>
Conductor cross section AWG min.	26
Conductor cross section AWG max.	14
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.	1.5 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.	1.5 mm <sup>2</sup>
Stripping length	9 mm

### Standards and Regulations

Connection in acc. with standard	CUL
	IEC 60947-7-1

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## Technical data

### Standards and Regulations

Flammability rating according to UL 94	V0
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

### Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

## Drawings

Circuit diagram



## Approvals

Approvals

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Approvals

UL Recognized / cUL Recognized / EAC / cULus Recognized

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Ex Approvals

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Approval details

# Mini feed-through terminal block - MZFKK 1,5 - 3029813

## Approvals

UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 60425
Nominal voltage UN	600 V		
Nominal current IN	15 A		
mm <sup>2</sup> /AWG/kcmil	26-14		

cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 60425
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EAC		RU C- DE.A*30.B.01742
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cULus Recognized	
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