

## Mini feed-through terminal block - MBK 3 - 1413010

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Mini feed-through terminal block, nom. voltage: 500 V, nominal current: 24 A, connection method: Screw connection, number of connections: 2, cross section: 0.2 mm<sup>2</sup> - 4 mm<sup>2</sup>, AWG: 24 - 12, width: 5.2 mm, color: gray, mounting type: NS 15

### 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



### Key Commercial Data

Packing unit	50 pc
Minimum order quantity	50 pc
GTIN	 4 017918 021092
GTIN	4017918021092
Weight per Piece (excluding packing)	6.720 g
Custom tariff number	85369010
Country of origin	Poland

### Technical data

#### General

Number of levels	1
Number of connections	2
Potentials	1
Nominal cross section	2.5 mm <sup>2</sup>
Color	gray
Insulating material	PA
Flammability rating according to UL 94	V2
Rated surge voltage	6 kV
Degree of pollution	3

## Mini feed-through terminal block - MBK 3 - 1413010

### Technical data

#### General

Overvoltage category	III
Insulating material group	I
Maximum power dissipation for nominal condition	0.77 W
Designation	Level 1 above 1 below 1
Maximum load current	32 A (with 4 mm <sup>2</sup> conductor cross section)
Nominal current I <sub>N</sub>	24 A
Nominal voltage U <sub>N</sub>	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
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	0.2 mm <sup>2</sup> / 0.2 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	0.2 mm <sup>2</sup>
Tractive force setpoint	10 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 tight fit on support	Test passed
Tight fit on carrier	NS 15
Setpoint	1 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

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### Technical data

#### General

Result of thermal test	Test passed
Proof of thermal characteristics (needle flame) effective duration	30 s
Relative insulation material temperature index (Elec., UL 746 B)	125 °C
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	125 °C

#### Dimensions

Width	5.2 mm
End cover width	2.5 mm
Length	28 mm
Height NS 15	32 mm

#### Connection data

Note	Terminal point
Connection	1 level
Connection method	Screw connection
Screw thread	M3
Stripping length	8 mm
Tightening torque, min	0.6 Nm
Tightening torque max	0.8 Nm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	4 mm <sup>2</sup>
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Min. AWG conductor cross section, flexible	24
Max. AWG conductor cross section, flexible	14
Conductor cross section flexible, with ferrule without plastic sleeve min.	0.25 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.	0.25 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve max.	1.5 mm <sup>2</sup>
Cross section with insertion bridge, solid max.	2.5 mm <sup>2</sup>
Cross section with insertion bridge, stranded max.	2.5 mm <sup>2</sup>
2 conductors with same cross section, solid min.	0.2 mm <sup>2</sup>
2 conductors with same cross section, solid max.	1.5 mm <sup>2</sup>
2 conductors with same cross section, stranded min.	0.2 mm <sup>2</sup>
2 conductors with same cross section, stranded max.	1.5 mm <sup>2</sup>
2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, min.	0.5 mm <sup>2</sup>
2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, max.	1 mm <sup>2</sup>

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### Technical data

#### Connection data

2 conductors with same cross section, stranded, ferrules without plastic sleeve, min.	0.25 mm <sup>2</sup>
2 conductors with same cross section, stranded, ferrules without plastic sleeve, max.	1.5 mm <sup>2</sup>
Internal cylindrical gage	A3

#### Standards and Regulations

Connection in acc. with standard	CSA
	IEC 60947-7-1
Flammability rating according to UL 94	V2

#### Environmental Product Compliance

	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

### Drawings

Circuit diagram



### Classifications

#### eCl@ss

eCl@ss 4.0	27141100
eCl@ss 4.1	27141100
eCl@ss 5.0	27141100
eCl@ss 5.1	27141100
eCl@ss 6.0	27141100
eCl@ss 7.0	27141120
eCl@ss 8.0	27141120
eCl@ss 9.0	27141120

#### ETIM

ETIM 2.0	EC000897
ETIM 3.0	EC000897
ETIM 4.0	EC000897
ETIM 5.0	EC000897
ETIM 6.0	EC000897
ETIM 7.0	EC000897



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## Classifications

### UNSPSC

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

## Approvals

### Approvals


#### Approvals

DNV GL / CSA / BV / NK / UL Recognized / cUL Recognized / EAC / EAC / cULus Recognized

#### Ex Approvals

### Approval details

DNV GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	TAE00001CT
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CSA		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	13631
Nominal voltage UN		150 V	
Nominal current IN		25 A	
mm <sup>2</sup> /AWG/kcmil		28-12	

BV		<a href="http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials">http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials</a>	05401/D0 BV
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NK		<a href="http://www.classnk.or.jp/hp/en/">http://www.classnk.or.jp/hp/en/</a>	09 ME 142
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<https://www.phoenixcontact.com/gb/products/1413010>




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### 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
	B	C	D
Nominal voltage UN	300 V	150 V	300 V
Nominal current IN	20 A	20 A	10 A
mm <sup>2</sup> /AWG/kcmil	28-12	28-12	28-12

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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Nominal voltage UN	300 V	150 V	300 V
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mm <sup>2</sup> /AWG/kcmil	28-12	28-12	28-12

EAC		EAC-Zulassung
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EAC		RU C- DE.A*30.B.01742
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cULus Recognized		
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