

# MBK 3 - Mini feed-through terminal block



1413010

<https://www.phoenixcontact.com/us/products/1413010>

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Mini feed-through terminal block, nom. voltage: 500 V, nominal current: 24 A, number of connections: 2, connection method: Screw connection, 1 level, Rated cross section: 2.5 mm<sup>2</sup>, cross section: 0.2 mm<sup>2</sup> - 4 mm<sup>2</sup>, mounting type: NS 15, color: gray

## Your advantages

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

## Commercial data

Item number	1413010
Packing unit	1 pc
Minimum order quantity	50 pc
Sales key	BE12
Product key	BE1261
Catalog page	Page 522 (CL1-2011)
GTIN	4017918021092
Weight per piece (including packing)	6.743 g
Weight per piece (excluding packing)	6.718 g
Customs tariff number	85369010
Country of origin	PL

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## 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	6 kV
Maximum power dissipation for nominal condition	0.77 W

### Connection data

Number of connections per level	2
Nominal cross section	2.5 mm <sup>2</sup>

#### 1 level

Screw thread	M3
Tightening torque	0.6 ... 0.8 Nm
Stripping length	8 mm
Internal cylindrical gage	A3
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Cross section AWG	24 ... 12 (converted acc. to IEC)
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section, flexible [AWG]	24 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Flexible conductor cross section (ferrule with plastic sleeve)	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Cross-section with insertion bridge, rigid	2.5 mm <sup>2</sup>
Cross-section with insertion bridge, flexible	2.5 mm <sup>2</sup>
2 conductors with same cross section, solid	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
2 conductors with same cross section, flexible	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm <sup>2</sup> ... 1 mm <sup>2</sup>
Nominal current	24 A
Maximum load current	32 A (with 4 mm <sup>2</sup> conductor cross section)
Nominal voltage	500 V
Nominal cross section	2.5 mm <sup>2</sup>

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## Dimensions

Width	5.2 mm
End cover width	2.5 mm

## Material specifications

Color	gray
Flammability rating according to UL 94	V2
Insulating material group	I
Insulating material	PA
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	125 °C
Relative insulation material temperature index (Elec., UL 746 B)	125 °C

## Electrical tests

### Surge voltage test

Test voltage setpoint	7.3 kV
Result	Test passed

### Temperature-rise test

Requirement temperature-rise test	Increase in temperature $\leq 45$ K
Result	Test passed
Short-time withstand current 2.5 mm <sup>2</sup>	0.3 kA
Short-time withstand current 4 mm <sup>2</sup>	0.48 kA
Result	Test passed

### Power-frequency withstand voltage

Test voltage setpoint	1.89 kV
Result	Test passed

## Mechanical properties

### Mechanical data

Open side panel	Yes
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## Mechanical tests

### Mechanical strength

Result	Test passed
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### Attachment on the carrier

DIN rail/fixing support	NS 15
Test force setpoint	1 N
Result	Test passed

### Test for conductor damage and slackening

Rotation speed	10 rpm
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Revolutions	135
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
Result	Test passed

## Environmental and real-life conditions

### Needle-flame test

Time of exposure	30 s
Result	Test passed

### Ambient conditions

Ambient temperature (operation)	-60 °C ... 105 °C (max. short-term operating temperature 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 (storage/transport)	30 % ... 70 %

## Standards and regulations

Connection in acc. with standard	IEC 60947-7-1
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## Mounting

Mounting type	NS 15
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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1413010>

### DNV

Approval ID: TAE00001CT



### CSA

Approval ID: 13631

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	150 V	25 A	28 - 12	-



### EAC

Approval ID: RU C-DE.BL08.B.00534



### cULus Recognized

Approval ID: E60425

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Use group B				
	600 V	20 A	28 - 12	-
Use group C				
	600 V	20 A	28 - 12	-



### NK

Approval ID: 09 ME 142

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## Classifications

### ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250101

### ETIM

ETIM 8.0	EC000897
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

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

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