

# MBK 2,5/E - Mini feed-through terminal block



1414006

<https://www.phoenixcontact.com/in/products/1414006>

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Mini feed-through terminal block, nom. voltage: 250 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> - 2.5 mm<sup>2</sup>, mounting type: NS 15, color: gray

## Your advantages

- Separating disks, partition plates, and test sockets complete the range of accessories
- 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	1414006
Packing unit	50 pc
Minimum order quantity	50 pc
Sales Key	BE1
Product Key	BE1261
Catalog Page	Page 516 (CL1-2011)
GTIN	4017918021269
Weight per Piece (including packing)	4.257 g
Weight per Piece (excluding packing)	3.958 g
Customs tariff number	85369010
Country of origin	IN

# MBK 2,5/E - Mini feed-through terminal block



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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	4 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	7 mm
Internal cylindrical gage	A3
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Cross section AWG	24 ... 14 (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)	2.5 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> ... 0.75 mm <sup>2</sup>
2 conductors with same cross section, flexible	0.2 mm <sup>2</sup> ... 0.75 mm <sup>2</sup>
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 0.75 mm <sup>2</sup>
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Nominal current	24 A
Maximum load current	24 A (with a 2.5 mm <sup>2</sup> conductor cross section)
Nominal voltage	250 V
Nominal cross section	2.5 mm <sup>2</sup>

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## Ex data

### Rated data (ATEX/IECEX)

Identification	Ex e II
Operating temperature range	-50 °C ... 110 °C
Ex-certified accessories	1414035 D-MBK 2,5/E
	1413227 ATP-MBK
	1205053 SZS 0,6X3,5
	1421633 E/MK
List of bridges	Fixed bridge / FBRN 10-5-EX / 3000612
Bridge data	20 A / 2.5 mm <sup>2</sup>
List of bridges	Insertion bridge / EB 2- 5 / 1401158
	Insertion bridge / EB 3- 5 / 1401145
	Insertion bridge / EB 10- 5 / 1401132
Bridge data	19 A / 2.5 mm <sup>2</sup>
Ex temperature increase	34 K (22 A / 2,5 mm <sup>2</sup> )
Rated voltage	176 V
at bridging with insertion bridge	176 V
for bridging with bridge	176 V
Rated insulation voltage	160 V
output	(Permanent)

### Ex level General

Rated current	22 A
Maximum load current	22 A
Contact resistance	0.35 mΩ

### Ex connection data General

Torque range	0.6 Nm ... 0.8 Nm
Nominal cross section	2.5 mm <sup>2</sup>
Rated cross section AWG	14
Connection capacity rigid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Connection capacity AWG	24 ... 14
Connection capacity flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Connection capacity AWG	24 ... 14
2 conductors with same cross section, solid	0.2 mm <sup>2</sup> ... 0.75 mm <sup>2</sup>
2 conductors with the same cross-section AWG rigid	24 ... 18
2 conductors with same cross section, stranded	0.2 mm <sup>2</sup> ... 0.75 mm <sup>2</sup>
2 conductors with the same cross-section AWG flexible	24 ... 18

## Dimensions

Width	5.2 mm
End cover width	1 mm
Height NS 15	26.5 mm
Height	1.039 "

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Length	24.5 mm
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## Material specifications

Color	gray
Flammability rating according to UL 94	V2
Insulating material group	I
Insulating material	PA
Static insulating material application in cold	-40 °C
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	4.8 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
Result	Test passed

### Power-frequency withstand voltage

Test voltage setpoint	1.5 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
Revolutions	135
Conductor cross section/weight	0.2 mm <sup>2</sup> / 0.2 kg
	2.5 mm <sup>2</sup> / 0.7 kg

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Result	Test passed
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## 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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## Drawings

### Circuit diagram



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## Approvals

 <b>CSA</b> Approval ID: 13631	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	300 V	20 A	28 - 12	-

 <b>cULus Recognized</b> Approval ID: E60425	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	300 V	20 A	30 - 12	-
	300 V	20 A	30 - 12	-

 <b>ATEX</b> Approval ID: KEMA 03ATEX2380U	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	176 V	22 A	-	0.2 - 2.5

 <b>EAC Ex</b> Approval ID: RU C-DE.HA91.B.00066				
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 <b>IECEX</b> Approval ID: IECEX KEM 07.0016U	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	176 V	22 A	-	0.2 - 2.5

 <b>CCC</b> Approval ID: 2020322313000629				
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 <b>NEPSI</b> Approval ID: GYJ20.1196U				
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# MBK 2,5/E - Mini feed-through terminal block



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## Classifications

### ECLASS

ECLASS-11.0

27141120

### ETIM

ETIM 8.0

EC000897

### 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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## Accessories



Note: Applying some accessories below might limit this product.

### FBRNI 2-5 N - Fixed bridge

3000175

<https://www.phoenixcontact.com/in/products/3000175>

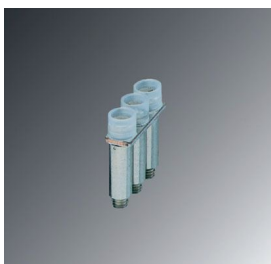


Fixed bridge, pitch: 5 mm, number of positions: 2, color: silver

### FBRNI 3-5 N - Fixed bridge

3000162

<https://www.phoenixcontact.com/in/products/3000162>



Fixed bridge, pitch: 5 mm, number of positions: 3, color: silver

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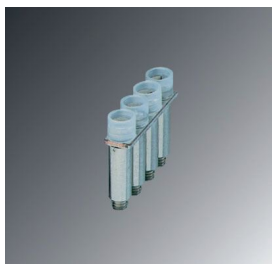
<https://www.phoenixcontact.com/in/products/1414006>



## FBRNI 4-5 N - Fixed bridge

3000159

<https://www.phoenixcontact.com/in/products/3000159>



Fixed bridge, pitch: 5 mm, number of positions: 4, color: silver

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## FBRNI 10-5 N - Fixed bridge

2770639

<https://www.phoenixcontact.com/in/products/2770639>



Fixed bridge, pitch: 5.2 mm, number of positions: 10, color: silver

 Max. current carrying capacity: 24 A

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<https://www.phoenixcontact.com/in/products/1414006>



## FBRNI 20-5 N - Fixed bridge

3000609

<https://www.phoenixcontact.com/in/products/3000609>



Fixed bridge, number of positions: 20, color: silver

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## EB 2- 5 - Insertion bridge

1401158

<https://www.phoenixcontact.com/in/products/1401158>



Insertion bridge, pitch: 5 mm, number of positions: 2, color: gray

 Max. current carrying capacity: 22 A

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<https://www.phoenixcontact.com/in/products/1414006>



## EB 3- 5 - Insertion bridge

1401145

<https://www.phoenixcontact.com/in/products/1401145>

Insertion bridge, pitch: 5 mm, number of positions: 3, color: gray



 Max. current carrying capacity: 22 A

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## EB 10- 5 - Insertion bridge

1401132

<https://www.phoenixcontact.com/in/products/1401132>

Insertion bridge, pitch: 5.2 mm, number of positions: 10, color: gray



 Max. current carrying capacity: 22 A

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## D-MBK 2,5/E - End cover

1414035

<https://www.phoenixcontact.com/in/products/1414035>

End cover, length: 24.5 mm, width: 1 mm, height: 20.9 mm, color: gray



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## RPS - Reducing plug

0201647

<https://www.phoenixcontact.com/in/products/0201647>

Reducing plug, number of positions: 1, fuse type: , mounting type: , , color: gray



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<https://www.phoenixcontact.com/in/products/1414006>

## ATP-MBK - Partition plate

1413227

<https://www.phoenixcontact.com/in/products/1413227>



Partition plate, length: 42.5 mm, width: 2.5 mm, height: 30.5 mm, color: gray

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## SZS 0,6X3,5 - Screwdriver

1205053

<https://www.phoenixcontact.com/in/products/1205053>



Actuation tool, for ST terminal blocks, insulated, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

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## BN-ZB 5,2/WH CUS - Marker pin Zack strip

0824271

<https://www.phoenixcontact.com/in/products/0824271>



Marker pin Zack strip, Strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: plug in, for terminal block width: 5.2 mm, lettering field size: 4 x 4 mm, Number of individual labels: 10

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## BN-ZB 5,2/WH:UNBEDRUCKT - Marker pin Zack strip

1401815

<https://www.phoenixcontact.com/in/products/1401815>



Marker pin Zack strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: plug in, for terminal block width: 5.2 mm, lettering field size: 4 x 4 mm, Number of individual labels: 10



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## UC-TMN 5,2 - Marker for terminal blocks

0822945

<https://www.phoenixcontact.com/in/products/0822945>



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 5.2 mm, lettering field size: 3.97 x 4.6 mm, Number of individual labels: 96

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## UC-TMN 5,2 CUS - Marker for terminal blocks

0826857

<https://www.phoenixcontact.com/in/products/0826857>



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: plug in, for terminal block width: 5.2 mm, lettering field size: 3.97 x 4.6 mm, Number of individual labels: 96

# MBK 2,5/E - Mini feed-through terminal block

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## NS 15 UNPERF 2000MM VPE 10 - DIN rail, unperforated

1401695

<https://www.phoenixcontact.com/in/products/1401695>



DIN rail, unperforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver, Pack of 10 (20 m)

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## NS 15 PERF 2000MM VPE 10 - DIN rail perforated

1401682

<https://www.phoenixcontact.com/in/products/1401682>



DIN rail perforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver, Pack of 10 (20 m)

# MBK 2,5/E - Mini feed-through terminal block

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## NS 15 AL PERF 2000MM VPE 10 - DIN rail perforated

1401763

<https://www.phoenixcontact.com/in/products/1401763>



DIN rail perforated, acc. to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver, Pack of 10 (20 m)

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## NS 15 WH PERF 2000MM-VPE 10 - DIN rail perforated

1204096

<https://www.phoenixcontact.com/in/products/1204096>



DIN rail perforated, acc. to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver, Pack of 10 (20 m)

# MBK 2,5/E - Mini feed-through terminal block

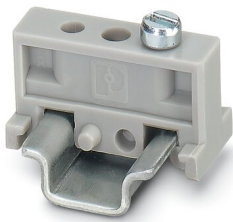
1414006

<https://www.phoenixcontact.com/in/products/1414006>

## E/MBK - End clamp

1401637

<https://www.phoenixcontact.com/in/products/1401637>



End clamp, width: 6.2 mm, color: gray

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## E/MK - End clamp

1421633

<https://www.phoenixcontact.com/in/products/1421633>



End clamp, width: 6.2 mm, color: gray

# MBK 2,5/E - Mini feed-through terminal block

1414006

<https://www.phoenixcontact.com/in/products/1414006>

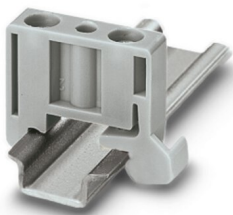


## E/MK 1 - End clamp

1421659

<https://www.phoenixcontact.com/in/products/1421659>

End clamp width: 6 mm, color: gray



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## PSBJ 3/13/4 - Female test connector

0201304

<https://www.phoenixcontact.com/in/products/0201304>

Female test connector, number of positions: 1, fuse type: , mounting type: , , ,  
color: silver



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<https://www.phoenixcontact.com/in/products/1414006>



## PSB 3/10/4 - Female test connector

0601292

<https://www.phoenixcontact.com/in/products/0601292>



Female test connector, number of positions: 1, fuse type: , mounting type: , , ,  
color: silver

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