

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



1414006

<https://www.phoenixcontact.com/us/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 mm², cross section: 0.2 mm² - 2.5 mm², 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	1 pc
Minimum order quantity	50 pc
Sales key	BE12
Product key	BE1261
Catalog page	Page 516 (CL1-2011)
GTIN	4017918021269
Weight per piece (including packing)	4.23 g
Weight per piece (excluding packing)	3.958 g
Customs tariff number	85369010
Country of origin	IN

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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 ²

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 ² ... 2.5 mm ²
Cross section AWG	24 ... 14 (converted acc. to IEC)
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section, flexible [AWG]	24 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.25 mm ² ... 2.5 mm ²
Flexible conductor cross section (ferrule with plastic sleeve)	2.5 mm ²
Cross-section with insertion bridge, rigid	2.5 mm ²
Cross-section with insertion bridge, flexible	2.5 mm ²
2 conductors with same cross section, solid	0.2 mm ² ... 0.75 mm ²
2 conductors with same cross section, flexible	0.2 mm ² ... 0.75 mm ²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm ² ... 0.75 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 1.5 mm ²
Nominal current	24 A
Maximum load current	24 A (with a 2.5 mm ² conductor cross section)
Nominal voltage	250 V
Nominal cross section	2.5 mm ²

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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 ²
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 ²
Ex temperature increase	34 K (22 A / 2,5 mm ²)
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 ²
Rated cross section AWG	14
Connection capacity rigid	0.2 mm ² ... 2.5 mm ²
Connection capacity AWG	24 ... 14
Connection capacity flexible	0.2 mm ² ... 2.5 mm ²
Connection capacity AWG	24 ... 14
2 conductors with same cross section, solid	0.2 mm ² ... 0.75 mm ²
2 conductors with the same cross-section AWG rigid	24 ... 18
2 conductors with same cross section, stranded	0.2 mm ² ... 0.75 mm ²
2 conductors with the same cross-section AWG flexible	24 ... 18

Dimensions

Width	5.2 mm
End cover width	1 mm

Material specifications

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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 ≤ 45 K
Result	Test passed
Short-time withstand current 2.5 mm ²	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 ² / 0.2 kg
	2.5 mm ² / 0.7 kg
Result	Test passed

Environmental and real-life conditions

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Needle-flame test

Time of exposure	30 s
Result	Test passed

Ambient conditions

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


To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1414006>

 CSA Approval ID: 13631				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	300 V	20 A	28 - 12	-

 cULus Recognized Approval ID: E60425				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	300 V	20 A	30 - 12	-
Use group C				
	300 V	20 A	30 - 12	-

 ATEX Approval ID: KEMA 03ATEX2380U				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	176 V	22 A	-	0.2 - 2.5

 EAC Ex Approval ID: RU C-DE.HA91.B.00066				
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 IECEx Approval ID: IECEx KEM 07.0016U				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	176 V	22 A	-	0.2 - 2.5

 CCC Approval ID: 2020322313000629				
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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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Accessories



Note: Applying some accessories below might limit this product.

FBRNI 2-5 N - Fixed bridge

3000175

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

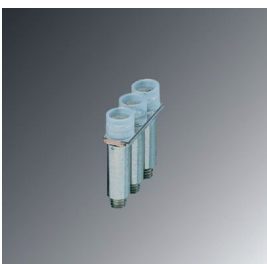


Fixed bridge, pitch: 5 mm, number of positions: 2, color: silver

FBRNI 3-5 N - Fixed bridge

3000162

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



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

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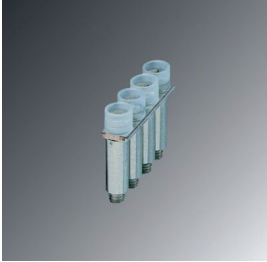
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FBRNI 4-5 N - Fixed bridge

3000159

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

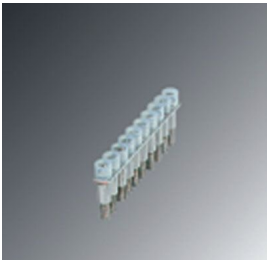


Fixed bridge, pitch: 5 mm, number of positions: 4, color: silver


FBRNI 10-5 N - Fixed bridge

2770639

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



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

 Max. current carrying capacity: 24 A

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FBRNI 20-5 N - Fixed bridge

3000609

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



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


EB 2-5 - Insertion bridge

1401158

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



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

 Max. current carrying capacity: 22 A

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EB 3- 5 - Insertion bridge

1401145

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

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



 Max. current carrying capacity: 22 A


EB 10- 5 - Insertion bridge

1401132

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

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



RPS - Reducing plug

0201647

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

Reducing plug, number of positions: 1, color: gray



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ATP-MBK - Partition plate

1413227

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



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

SZS 0,6X3,5 - Screwdriver

1205053

<https://www.phoenixcontact.com/us/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/us/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

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

1401815

<https://www.phoenixcontact.com/us/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/us/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

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

0826857

<https://www.phoenixcontact.com/us/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

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

1401695

<https://www.phoenixcontact.com/us/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)

NS 15 PERF 2000MM VPE 10 - DIN rail perforated

1401682

<https://www.phoenixcontact.com/us/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)

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

1401763

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



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

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

1204096

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



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

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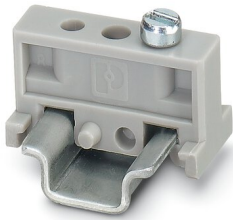
<https://www.phoenixcontact.com/us/products/1414006>



E/MBK - End clamp

1401637

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



End clamp, width: 6.2 mm, color: gray

E/MK - End clamp

1421633

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



End clamp, width: 6.2 mm, color: gray

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E/MK 1 - End clamp

1421659

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

End clamp width: 6 mm, color: gray



PSBJ 3/13/4 - Female test connector

0201304

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

Female test connector, number of positions: 1, color: silver



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PSB 3/10/4 - Female test connector

0601292

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

Female test connector, number of positions: 1, color: silver



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