MBK 3/E-Z - Mini feed-through terminal block

1413036

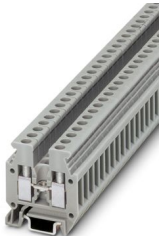https://www.phoenixcontact.com/us/products/1413036

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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^2, cross section: 0.2 mm^2 - 4 mm^2, mounting type: NS 15, color: gray

Your advantages

- Separating disks, partition plates, and test sockets complete the range of accessories
- 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	1413036
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE12
Product key	BE1261
Catalog page	Page 517 (CL1-2011)
GTIN	4017918021115
Weight per piece (including packing)	4.806 g
Weight per piece (excluding packing)	4.407 g
Customs tariff number	85369010
Country of origin	IN

MBK 3/E-Z - Mini feed-through terminal block

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https://www.phoenixcontact.com/us/products/1413036

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 mm²

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 mm² ... 4 mm²
Cross section AWG	24 ... 12 (converted acc. to IEC)
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section, flexible [AWG]	24 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.25 mm² ... 2.5 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	0.25 mm² ... 1.5 mm²
Cross-section with insertion bridge, rigid	2.5 mm²
Cross-section with insertion bridge, flexible	2.5 mm²
2 conductors with same cross section, solid	0.2 mm² ... 1 mm²
2 conductors with same cross section, flexible	0.2 mm² ... 1.5 mm²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm² ... 1.5 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² ... 1 mm²
Nominal current	24 A
Maximum load current	32 A (with 4 mm² conductor cross section)
Nominal voltage	500 V
Nominal cross section	2.5 mm²

MBK 3/E-Z - Mini feed-through terminal block

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https://www.phoenixcontact.com/us/products/1413036

Ex data

Rated data (ATEX/IECEx)

Identification	⟨Ex⟩ II 2 G Ex eb IIC Gb
Operating temperature range	-60 °C ... 105 °C
Ex-certified accessories	1415021 D-MBK/E
	1205053 SZS 0,6X3,5
	1421633 E/MK
List of bridges	Fixed bridge / FBRI 2-5 N / 3000227
	Fixed bridge / FBRI 3-5 N / 3000201
	Fixed bridge / FBRI 5-5 N / 3000188
	Fixed bridge / FBRI 6-5 N / 3000256
	Fixed bridge / FBRI 10-5 N / 2770642
	Fixed bridge / FBRI 20-5 N / 3000515
Bridge data	22 A / 2.5 mm²
Ex temperature increase	40 K (23.1 A / 2.5 mm²)
Rated voltage	275 V
for bridging with bridge	250 V
- At bridging between non-adjacent terminal blocks	176 V
Rated insulation voltage	250 V
output	(Permanent)

Ex level General

Rated current	21 A
Maximum load current	27.5 A
Contact resistance	0.5 mΩ

Ex connection data General

Torque range	0.6 Nm ... 0.8 Nm
Nominal cross section	2.5 mm²
Rated cross section AWG	14
Connection capacity rigid	0.2 mm² ... 4 mm²
Connection capacity AWG	24 ... 12
Connection capacity flexible	0.2 mm² ... 2.5 mm²
Connection capacity AWG	24 ... 14
2 conductors with same cross section, solid	0.2 mm² ... 1.5 mm²
2 conductors with the same cross-section AWG rigid	24 ... 16
2 conductors with same cross section, stranded	0.2 mm² ... 1.5 mm²
2 conductors with the same cross-section AWG flexible	24 ... 16

Dimensions

Width	5.2 mm
End cover width	1 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

Result	Test passed

Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
Short-time withstand current 2.5 mm²	0.3 kA
Short-time withstand current 4 mm²	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

Mechanical tests

Mechanical strength

Result	Test passed

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 mm² / 0.2 kg
	2.5 mm² / 0.7 kg
	4 mm² / 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 (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

Mounting

Mounting type	NS 15

MBK 3/E-Z - Mini feed-through terminal block

Drawings

Circuit diagram

Approvals

💡 To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1413036

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	28 - 12	-
Use group C				
	300 V	20 A	28 - 12	-
Use group F				
	500 V	20 A	28 - 12	-
Use group D				
	600 V	5 A	28 - 12	-

ATEX
Approval ID: KEMA 01ATEX2134U

EAC Ex
Approval ID: RU C-DE.HA91.B.00066

IECEx
Approval ID: IECEx KEM 07.0008U

CCC
Approval ID: 2020322313000629

MBK 3/E-Z - Mini feed-through terminal block

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https://www.phoenixcontact.com/us/products/1413036

Classifications

ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250101

ETIM

ETIM 8.0	EC000897

UNSPSC

UNSPSC 21.0	39121400

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https://www.phoenixcontact.com/us/products/1413036

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c)

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)

MBK 3/E-Z - Mini feed-through terminal block

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https://www.phoenixcontact.com/us/products/1413036

Accessories

> ⓘ   Note: Applying some accessories below might limit this product.

FBRI 10-5 N - Fixed bridge

2770642

https://www.phoenixcontact.com/us/products/2770642

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

ⓘ Max. current carrying capacity: 24 A

EBL 10- 5 - Insertion bridge

2303132

https://www.phoenixcontact.com/us/products/2303132

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

ⓘ Max. current carrying capacity: 24 A

MBK 3/E-Z - Mini feed-through terminal block

1413036

https://www.phoenixcontact.com/us/products/1413036

SBRN 2-7 - Switching jumper

1413230

https://www.phoenixcontact.com/us/products/1413230

Switching jumper, pitch: 7 mm, number of positions: 2, color: silver

ⓘ Max. current carrying capacity: 24 A

FBRI 2-5 N - Fixed bridge

3000227

https://www.phoenixcontact.com/us/products/3000227

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

ⓘ Max. current carrying capacity: 24 A
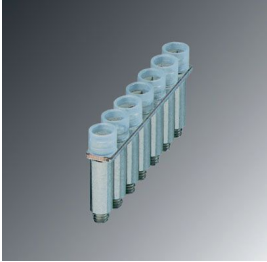
MBK 3/E-Z - Mini feed-through terminal block

1413036

https://www.phoenixcontact.com/us/products/1413036

FBRI 3-5 N - Fixed bridge

3000201

https://www.phoenixcontact.com/us/products/3000201

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

ⓘ Max. current carrying capacity: 24 A

FBRI 4-5 N - Fixed bridge

3000191

https://www.phoenixcontact.com/us/products/3000191

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

ⓘ Max. current carrying capacity: 24 A

MBK 3/E-Z - Mini feed-through terminal block

1413036

https://www.phoenixcontact.com/us/products/1413036

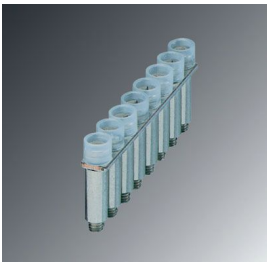## FBRI 5-5 N - Fixed bridge

3000188

https://www.phoenixcontact.com/us/products/3000188

Fixed bridge, number of positions: 5, color: silver

ℹ️ Max. current carrying capacity: 24 A

FBRI 6-5 N - Fixed bridge

3000256

https://www.phoenixcontact.com/us/products/3000256

Fixed bridge, number of positions: 6, color: silver

ℹ️ Max. current carrying capacity: 24 A

MBK 3/E-Z - Mini feed-through terminal block

FBRI 7-5 N - Fixed bridge

3000269

https://www.phoenixcontact.com/us/products/3000269

Fixed bridge, number of positions: 7, color: silver

ℹ Max. current carrying capacity: 24 A

FBRI 8-5 N - Fixed bridge

3000272

https://www.phoenixcontact.com/us/products/3000272

Fixed bridge, number of positions: 8, color: silver

ℹ Max. current carrying capacity: 24 A
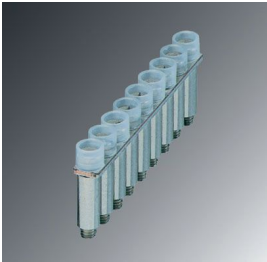
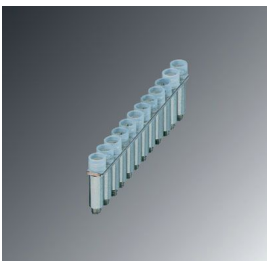# MBK 3/E-Z - Mini feed-through terminal block

FBRI 9-5 N - Fixed bridge

Fixed bridge, number of positions: 9, color: silver

ⓘ Max. current carrying capacity: 24 A

FBRI 12-5 N - Fixed bridge

Fixed bridge, number of positions: 12, color: silver

ⓘ Max. current carrying capacity: 24 A
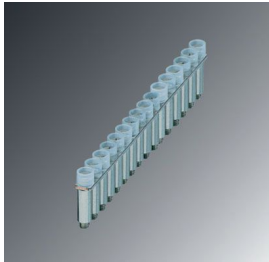
MBK 3/E-Z - Mini feed-through terminal block

1413036

https://www.phoenixcontact.com/us/products/1413036

FBRI 16-5 N - Fixed bridge
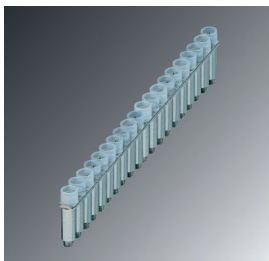
3000476

https://www.phoenixcontact.com/us/products/3000476

Fixed bridge, number of positions: 16, color: silver

ⓘ Max. current carrying capacity: 24 A

FBRI 20-5 N - Fixed bridge

3000515

https://www.phoenixcontact.com/us/products/3000515

Fixed bridge, pitch: 5 mm, number of positions: 20, color: silver

ⓘ Max. current carrying capacity: 24 A

MBK 3/E-Z - Mini feed-through terminal block

1413036

https://www.phoenixcontact.com/us/products/1413036

FBRI 40-5 N - Fixed bridge

3006823

https://www.phoenixcontact.com/us/products/3006823
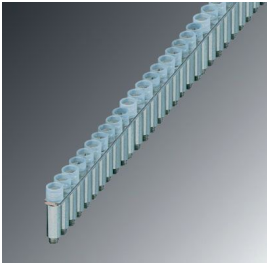
Fixed bridge, number of positions: 40, color: silver

ⓘ Max. current carrying capacity: 24 A

D-MBK/E - End cover

1415021

https://www.phoenixcontact.com/us/products/1415021

End cover, width: 1 mm, height: 26.2 mm, color: gray

MBK 3/E-Z - Mini feed-through terminal block

1413036

https://www.phoenixcontact.com/us/products/1413036

FB-150   METER - Fixed bridge

0201595

https://www.phoenixcontact.com/us/products/0201595

Cross connection rail, for fixed bridging of identical inputs and outputs, made of Cu, nickel-plated, 1 m long

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RPS - Reducing plug

0201647

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

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

MBK 3/E-Z - Mini feed-through terminal block

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https://www.phoenixcontact.com/us/products/1413036

TS-KK 3 - Separating plate

2770215

https://www.phoenixcontact.com/us/products/2770215

Separating plate, depth: 16 mm, width: 0.5 mm, height: 14 mm, color: gray

ATP-MBK - Partition plate

1413227

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

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

MBK 3/E-Z - Mini feed-through terminal block

1413036

https://www.phoenixcontact.com/us/products/1413036

SBS 5:UNBEDRUCKT - Marker card

1007219

https://www.phoenixcontact.com/us/products/1007219

Marker card, Card, white, unlabeled, can be labeled with: Marker pen, perforated, mounting type: snap into tall marker groove, snap into flat marker groove, for terminal block width: 5 mm, lettering field size: 6 x 5.1 mm, Number of individual labels: 250

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

MBK 3/E-Z - Mini feed-through terminal block

1413036

https://www.phoenixcontact.com/us/products/1413036

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

1401695

https://www.phoenixcontact.com/us/products/1401695

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

NS 15 PERF 2000MM VPE 10 - DIN rail perforated

1401682

https://www.phoenixcontact.com/us/products/1401682

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

MBK 3/E-Z - Mini feed-through terminal block

1413036

https://www.phoenixcontact.com/us/products/1413036

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

1401763

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

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

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

1204096

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

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

MBK 3/E-Z - Mini feed-through terminal block

1413036

https://www.phoenixcontact.com/us/products/1413036

ZB 5 :UNBEDRUCKT - Zack marker strip

1050004

https://www.phoenixcontact.com/us/products/1050004

Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 5.2 mm, lettering field size: 5.1 x 10.5 mm, Number of individual labels: 10

ZB 5 CUS - Zack marker strip

0824962

https://www.phoenixcontact.com/us/products/0824962

Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 5.15 x 10.5 mm, Number of individual labels: 10

MBK 3/E-Z - Mini feed-through terminal block

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https://www.phoenixcontact.com/us/products/1413036

ZB 5,LGS:FORTL.ZAHLEN - Zack marker strip

1050017

https://www.phoenixcontact.com/us/products/1050017

Zack marker strip, Strip, white, labeled, printed horizontally: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 491 ... 500, mounting type: snapped, for terminal block width: 5.2 mm, lettering field size: 5.15 x 10.5 mm, Number of individual labels: 10

ZB 5,QR:FORTL.ZAHLEN - Zack marker strip

1050020

https://www.phoenixcontact.com/us/products/1050020

Zack marker strip, white, Printed vertically: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 491 ... 500, mounting type: snapped, for terminal block width: 5.2 mm, lettering field size: 5.15 x 10.5 mm

MBK 3/E-Z - Mini feed-through terminal block

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ZB 5,LGS:GLEICHE ZAHLEN - Zack marker strip

1050033

https://www.phoenixcontact.com/us/products/1050033

Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, printed horizontally: Identical numbers 1 or 2, etc. up to 100, mounting type: snapped, for terminal block width: 5.2 mm, lettering field size: 5.15 x 10.5 mm, Number of individual labels: 10

ZB 5,LGS:L1-N,PE - Zack marker strip

1050415

https://www.phoenixcontact.com/us/products/1050415

Zack marker strip, Strip, white, labeled, horizontal: L1, L2, L3, N, PE, L1, L2, L3, N, PE, mounting type: snapped, for terminal block width: 5.2 mm, lettering field size: 5.15 x 10.5 mm, Number of individual labels: 10

MBK 3/E-Z - Mini feed-through terminal block

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UC-TM 5 - Marker for terminal blocks

0818108

https://www.phoenixcontact.com/us/products/0818108

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: 4.6 x 10.5 mm, Number of individual labels: 96

UC-TM 5 CUS - Marker for terminal blocks

0824581

https://www.phoenixcontact.com/us/products/0824581

Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 10.5 x 4.6 mm, Number of individual labels: 96

MBK 3/E-Z - Mini feed-through terminal block

1413036

https://www.phoenixcontact.com/us/products/1413036

UCT-TM 5 - Marker for terminal blocks

0828734

https://www.phoenixcontact.com/us/products/0828734

Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snapped, for terminal block width: 5.2 mm, lettering field size: 4.6 x 10.5 mm, Number of individual labels: 72

UCT-TM 5 CUS - Marker for terminal blocks

0829595

https://www.phoenixcontact.com/us/products/0829595

Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 4.6 x 10.5 mm, Number of individual labels: 72

MBK 3/E-Z - Mini feed-through terminal block

1413036

https://www.phoenixcontact.com/us/products/1413036

GBS 5-25X12 - Group marker label for terminal marking

0810588

https://www.phoenixcontact.com/us/products/0810588

Group marker label, snaps onto terminal center for screw, spring-cage and quick connection terminal blocks, labeled with a 25 x 12 mm label or manually with the B-STIFT, in the foot part with ZB 5

GBS 5-25X5 - Group marker label for terminal marking

0829126

https://www.phoenixcontact.com/us/products/0829126

Group marking label, can be snapped into terminal center for screw, spring-cage, push-in, and fast connection terminal blocks, can be labeled with a 24 x 4 mm label or manually using B-STIFT, in the foot part with ZB 5

MBK 3/E-Z - Mini feed-through terminal block

1413036

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STP 5-2-ZB - Marker carriers

3037643

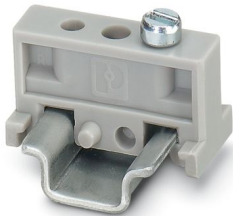https://www.phoenixcontact.com/us/products/3037643

Marker carriers, snaps into ST 2,5 spring-cage terminal blocks, can be marked with UC-TM 5, UC-TMF 5, UCT-TM 5, UCT-TMF 5, ZB 5, or ZBF 5, gray, unlabeled, mounting type: snapped

E/MBK - End bracket

1401637

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

End clamp, width: 6.2 mm, color: gray

MBK 3/E-Z - Mini feed-through terminal block

1413036

https://www.phoenixcontact.com/us/products/1413036

E/MK - End bracket

1421633

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

End clamp, width: 6.2 mm, color: gray

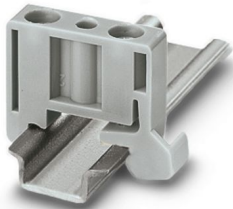## E/MK 1 - End bracket

1421659

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

End clamp width: 6 mm, color: gray

MBK 3/E-Z - Mini feed-through terminal block

PSBJ 3/13/4 - Test plug strip

0201304

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

Test plug strip, number of positions: 1, color: silver

PSB 3/10/4 - Test plug strip

0601292

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

Test plug strip, number of positions: 1, color: silver