

PTRVB 4-FI /BU - Potential distributors



3270221

<https://www.phoenixcontact.com/us/products/3270221>

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Potential distributors, with option to supply up to 6 mm², nom. voltage: 250 V, nominal current: 17.5 A, connection method: Push-in connection, Rated cross section: 1.5 mm², cross section: 0.14 mm² - 2.5 mm², Feed-in stage, Rated cross section: 4 mm², cross section: 0.2 mm² - 6 mm², mounting: NS 35/7,5, NS 35/15, color: gray, color of connection elements: blue

Your advantages

- High contact quality thanks to push-in technology as a replacement for Wire-Wrap®, TERMI-POINT®, etc.
- Tool-free wiring in a confined space thanks to compact size
- Distributor terminal block in blue for 24 V DC power supplies
- Bridgeable potential distributor with option to supply up to 6 mm²

Commercial data

Item number	3270221
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	BE62
Product key	BE6211
Catalog page	Page 48 (C-1-2019)
GTIN	4055626186375
Weight per piece (including packing)	20.51 g
Weight per piece (excluding packing)	20.57 g
Customs tariff number	85369010
Country of origin	PL

Technical data

Product properties

Product type	Potential distributor
Number of positions	2
Number of connections	13
Number of rows	4
Potentials	1

Insulation characteristics

Overvoltage category	III
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Electrical properties

Rated surge voltage	4 kV
Maximum power dissipation for nominal condition	0.56 W

Connection data

Service Entrance	yes
Number of connections per level	4
Nominal cross section	1.5 mm ²

Level 1+2+3 above 1

Stripping length	8 mm ... 10 mm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	0.14 mm ² ... 2.5 mm ²
Cross section AWG	26 ... 14 (converted acc. to IEC)
Conductor cross section flexible	0.14 mm ² ... 1.5 mm ²
Conductor cross section, flexible [AWG]	26 ... 16 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm ² ... 1.5 mm ²
Flexible conductor cross section (ferrule with plastic sleeve)	0.14 mm ² ... 1.5 mm ²
Nominal current	17.5 A (with 1.5 mm ² conductor cross section)
Maximum load current	24 A (per chamber with 2.5 mm ² conductor cross section)
Maximum total current	37 A (per potential distributor)
Nominal voltage	250 V
Nominal cross section	1.5 mm ²

Feed-in stage

Note	Only the "CRIMPFOX 6" crimping pliers may be used for crimping with 6 mm ² stranded and ferrule.
Stripping length	10 mm ... 12 mm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	0.2 mm ² ... 6 mm ²
Cross section AWG	24 ... 10 (converted acc. to IEC)
Conductor cross section flexible	0.2 mm ² ... 6 mm ²
Conductor cross section, flexible [AWG]	24 ... 10 (converted acc. to IEC)

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Conductor cross-section flexible (ferrule without plastic sleeve)	0.2 mm² ... 6 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	0.2 mm² ... 6 mm²
Nominal current	32 A (Supply, for 4 mm² conductor cross section)
Maximum load current	37 A (Service Entrance)
Nominal voltage	250 V
Nominal cross section	4 mm²

Level 1+2+3 above 1 Connection cross sections directly pluggable

Conductor cross section rigid	0.34 mm² ... 2.5 mm²
Conductor cross section, rigid [AWG]	20 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.34 mm² ... 1.5 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	0.34 mm² ... 1.5 mm²

Feed-in stage Connection cross sections directly pluggable

Conductor cross section rigid	0.34 mm² ... 6 mm²
Conductor cross section, rigid [AWG]	24 ... 10 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.34 mm² ... 6 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	0.34 mm² ... 6 mm²

Dimensions

Width	8.3 mm
Height	64 mm
Depth on NS 35/7,5	55.5 mm
Depth on NS 35/15	63 mm

Material specifications

Color	gray
Color of connection elements	blue
Flammability rating according to UL 94	V0
Insulating material group	I
Insulating material	PA
Static insulating material application in cold	-60 °C
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	125 °C
Relative insulation material temperature index (Elec., UL 746 B)	130 °C
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R26	HL 1 - HL 3
Calorimetric heat release NFPA 130 (ASTM E 1354)	27,5 MJ/kg
Surface flammability NFPA 130 (ASTM E 162)	passed
Specific optical density of smoke NFPA 130 (ASTM E 662)	passed
Smoke gas toxicity NFPA 130 (SMP 800C)	passed

Electrical tests

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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 1.5 mm ²	0.18 kA
Short-time withstand current 2.5 mm ²	0.3 kA
Short-time withstand current 4 mm ²	0.48 kA
Short-time withstand current 6 mm ²	0.72 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 35
Test force setpoint	1 N
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
Conductor cross section/weight	0.14 mm ² / 0.2 kg
	1.5 mm ² / 0.4 kg
	2.5 mm ² / 0.7 kg
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
	4 mm ² / 0.9 kg
	6 mm ² / 1.4 kg
Result	Test passed

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Environmental and real-life conditions

Aging

Temperature cycles	192
Result	Test passed

Needle-flame test

Time of exposure	30 s
Result	Test passed

Oscillation/broadband noise

Specification	DIN EN 50155 (VDE 0115-200):2008-03
Spectrum	Service life test category 2, bogie-mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	$6.12 \text{ (m/s}^2\text{)}^2\text{/Hz}$
Acceleration	3.12g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Result	Test passed

Shocks

Specification	DIN EN 50155 (VDE 0115-200):2008-03
Pulse shape	Half-sine
Acceleration	30g
Shock duration	18 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
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

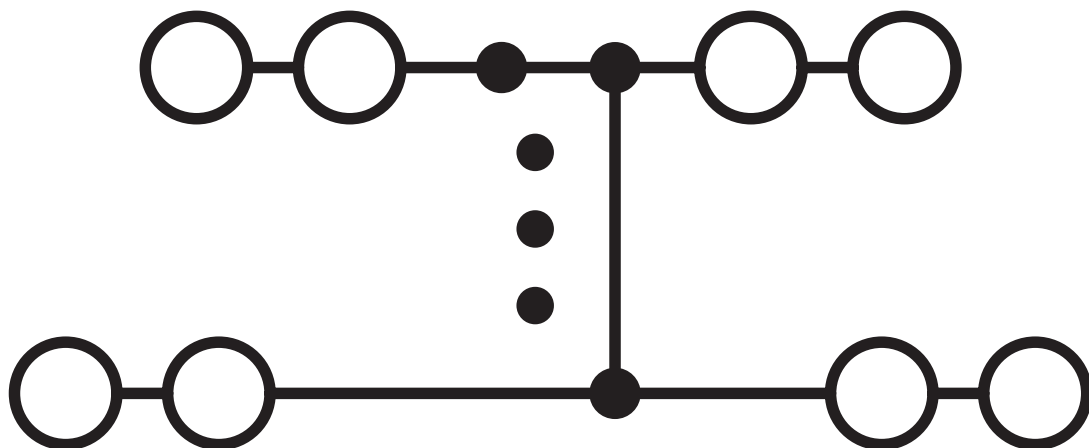
Connection in acc. with standard	IEC 60947-7-1
	IEC 60947-7-1

Mounting

Mounting type	NS 35/7,5
	NS 35/15

Drawings

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3270221>



CSA

Approval ID: 2030668

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Classifications

ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250119

ETIM

ETIM 9.0	EC000897
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UNSPSC

UNSPSC 21.0	39121400
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Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes, No exemptions
China RoHS	
Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits
EU REACH SVHC	
REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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Accessories

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

FBST 500-PLC RD - Continuous plug-in bridge

2966786

<https://www.phoenixcontact.com/us/products/2966786>



Continuous plug-in bridge, length: 500 mm, color: red

i Max. current carrying capacity: 32 A

FBST 500-PLC GY - Continuous plug-in bridge

2966838

<https://www.phoenixcontact.com/us/products/2966838>



Continuous plug-in bridge, length: 500 mm, color: gray

i Max. current carrying capacity: 32 A

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FBST 500-PLC BN - Continuous plug-in bridge

2967976

<https://www.phoenixcontact.com/us/products/2967976>



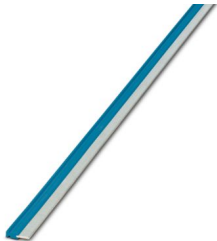
Continuous plug-in bridge, length: 500 mm, color: brown

 Max. current carrying capacity: 32 A

FBST 500-PLC BU - Continuous plug-in bridge

2966692

<https://www.phoenixcontact.com/us/products/2966692>



Continuous plug-in bridge, length: 500 mm, color: blue

 Max. current carrying capacity: 32 A

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DP-PTRV 4 - Spacer plate

3270163

<https://www.phoenixcontact.com/us/products/3270163>



Spacer plate, depth: 54 mm, width: 8.3 mm, height: 63.6 mm, color: gray

CDC-PTRV - Retaining bracket

3270167

<https://www.phoenixcontact.com/us/products/3270167>



Retaining bracket, via four PTRV single modules, pitch: 8.3 mm, depth: 71.5 mm, width: 35.6 mm, height: 71.5 mm, color: gray

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RPS - Reducing plug

0201647

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



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

FBST 50-PLC RD - Plug-in bridge

1081050

<https://www.phoenixcontact.com/us/products/1081050>



Plug-in bridge, length: 50 mm, color: red

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FBST 50-PLC BU - Plug-in bridge

1081051

<https://www.phoenixcontact.com/us/products/1081051>



Plug-in bridge, length: 50 mm, color: blue

FBST 50-PLC GY - Plug-in bridge

1081053

<https://www.phoenixcontact.com/us/products/1081053>



Plug-in bridge, length: 50 mm, color: gray

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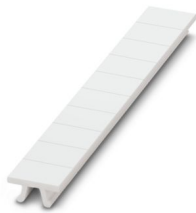
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ZB 8,3:UNBEDRUCKT - Zack marker strip

0803444

<https://www.phoenixcontact.com/us/products/0803444>



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 8.3 mm, lettering field size: 10.5 x 8.3 mm

ZB 8,3,LGS:FORTL.ZAHLEN - Zack marker strip

0803480

<https://www.phoenixcontact.com/us/products/0803480>



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 8.3 mm, lettering field size: 10.5 x 8.3 mm

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ZB 8,3,QR:FORTL.ZAHLEN - Zack marker strip

0803479

<https://www.phoenixcontact.com/us/products/0803479>

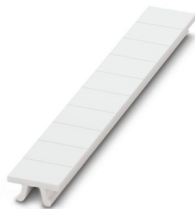


Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 8.3 mm, lettering field size: 10.5 x 8.3 mm

ZB 8,3 CUS - Zack marker strip

8191573

<https://www.phoenixcontact.com/us/products/8191573>



Zack marker strip, Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 8.3 mm, lettering field size: 10.5 x 8.3 mm

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TM-PTRV 4,QR:1-4 - Marker for terminal blocks

0803464

<https://www.phoenixcontact.com/us/products/0803464>



Marker for terminal blocks, white, labeled, mounting type: snapped, for terminal block width: 4 mm, lettering field size: 2.4 x 9.2 mm

TM-PTRV 4,QR:4-1 - Marker for terminal blocks

0803465

<https://www.phoenixcontact.com/us/products/0803465>



Marker for terminal blocks, white, labeled, mounting type: snapped, for terminal block width: 4 mm, lettering field size: 2.4 x 9.2 mm

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TM-PTRV 4,QR:A-D - Marker for terminal blocks

0803466

<https://www.phoenixcontact.com/us/products/0803466>



Marker for terminal blocks, white, labeled, mounting type: snapped, for terminal block width: 4 mm, lettering field size: 2.4 x 9.2 mm

TM-PTRV 4,QR:D-A - Marker for terminal blocks

0803467

<https://www.phoenixcontact.com/us/products/0803467>



Marker for terminal blocks, white, labeled, mounting type: snapped, for terminal block width: 4 mm, lettering field size: 2.4 x 9.2 mm

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D-PTRV 4 WH - End cover

3270151

<https://www.phoenixcontact.com/us/products/3270151>

End cover, depth: 48.9 mm, width: 3.8 mm, height: 63.6 mm, color: white



D-PTRV 4 WH 1-4 - End cover

3270152

<https://www.phoenixcontact.com/us/products/3270152>

End cover, depth: 48.9 mm, width: 2.2 mm, height: 63.6 mm, color: white



PTRVB 4-FI /BU - Potential distributors



3270221

<https://www.phoenixcontact.com/us/products/3270221>

D-PTRV 4 WH 1-4 LGS - End cover

3270234

<https://www.phoenixcontact.com/us/products/3270234>



End cover, depth: 48.9 mm, width: 2.2 mm, height: 63.6 mm, color: white

D-PTRV 4 WH 4-1 - End cover

3270236

<https://www.phoenixcontact.com/us/products/3270236>



End cover, depth: 48.9 mm, width: 2.2 mm, height: 63.6 mm, color: white

PTRVB 4-FI /BU - Potential distributors



3270221

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D-PTRV 4 WH 4-1 LGS - End cover

3270238

<https://www.phoenixcontact.com/us/products/3270238>



End cover, depth: 48.9 mm, width: 2.2 mm, height: 63.6 mm, color: white

D-PTRV 4 WH A-D - End cover

3270153

<https://www.phoenixcontact.com/us/products/3270153>



End cover, depth: 48.9 mm, width: 2.2 mm, height: 63.6 mm, color: white

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D-PTRV 4 WH A-D LGS - End cover

3270235

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End cover, depth: 48.9 mm, width: 2.2 mm, height: 63.6 mm, color: white

D-PTRV 4 WH D-A - End cover

3270237

<https://www.phoenixcontact.com/us/products/3270237>



End cover, depth: 48.9 mm, width: 2.2 mm, height: 63.6 mm, color: white

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D-PTRV 4 WH D-A LGS - End cover

3270239

<https://www.phoenixcontact.com/us/products/3270239>



End cover, depth: 48.9 mm, width: 2.2 mm, height: 63.6 mm, color: white

NS 35/ 7,5 PERF 2000MM - DIN rail perforated

0801733

<https://www.phoenixcontact.com/us/products/0801733>



DIN rail perforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

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NS 35/ 7,5 UNPERF 2000MM - DIN rail, unperforated

0801681

<https://www.phoenixcontact.com/us/products/0801681>



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

NS 35/ 7,5 WH PERF 2000MM - DIN rail perforated

1204119

<https://www.phoenixcontact.com/us/products/1204119>



DIN rail perforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

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NS 35/ 7,5 WH UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1204122

<https://www.phoenixcontact.com/us/products/1204122>



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

NS 35/ 7,5 AL UNPERF 2000MM - DIN rail, unperforated

0801704

<https://www.phoenixcontact.com/us/products/0801704>



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver

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NS 35/ 7,5 ZN PERF 2000MM - DIN rail perforated

1206421

<https://www.phoenixcontact.com/us/products/1206421>



DIN rail perforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver

NS 35/ 7,5 ZN UNPERF 2000MM - DIN rail, unperforated

1206434

<https://www.phoenixcontact.com/us/products/1206434>



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver

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NS 35/ 7,5 CU UNPERF 2000MM-VPE 10 - DIN rail, unperforated

0801762

<https://www.phoenixcontact.com/us/products/0801762>



DIN rail, unperforated, Pack of 10 (20 m), acc. to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored

NS 35/ 7,5 CAP - End cap

1206560

<https://www.phoenixcontact.com/us/products/1206560>



DIN rail end piece, for DIN rail NS 35/7.5

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CLIPFIX 35 - End bracket

3022218

<https://www.phoenixcontact.com/us/products/3022218>

Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, width: 9.5 mm, color: gray



CLIPFIX 35-5 - End bracket

3022276

<https://www.phoenixcontact.com/us/products/3022276>

Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, with parking option for FBS...5, FBS...6, KSS 5, KSS 6, width: 5.15 mm, color: gray



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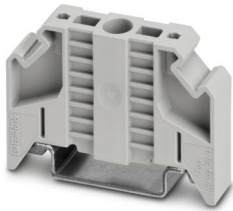
<https://www.phoenixcontact.com/us/products/3270221>

E/NS 35 N - End bracket

0800886

<https://www.phoenixcontact.com/us/products/0800886>

End clamp, width: 9.5 mm, color: gray



E/UK - End bracket

1201442

<https://www.phoenixcontact.com/us/products/1201442>

End bracket, Mounting on a DIN rail NS 32 or NS 35, material: PA, color: gray



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E/UK 1 - End bracket

1201413

<https://www.phoenixcontact.com/us/products/1201413>



End clamps, for supporting the ends of double-level and three-level terminal blocks, width: 10 mm, color: gray

MPS-MT - Test plug

0201744

<https://www.phoenixcontact.com/us/products/0201744>



Test plug, with solder connection up to 1 mm² conductor cross section, number of positions: 1, color: gray

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MPS-IH WH - Insulating sleeve

0201663

<https://www.phoenixcontact.com/us/products/0201663>

Insulating sleeve, color: white



MPS-IH RD - Insulating sleeve

0201676

<https://www.phoenixcontact.com/us/products/0201676>

Insulating sleeve, color: red



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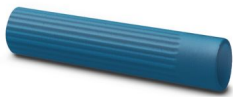
<https://www.phoenixcontact.com/us/products/3270221>

MPS-IH BU - Insulating sleeve

0201689

<https://www.phoenixcontact.com/us/products/0201689>

Insulating sleeve, color: blue



MPS-IH YE - Insulating sleeve

0201692

<https://www.phoenixcontact.com/us/products/0201692>

Insulating sleeve, color: yellow



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<https://www.phoenixcontact.com/us/products/3270221>

MPS-IH GN - Insulating sleeve

0201702

<https://www.phoenixcontact.com/us/products/0201702>

Insulating sleeve, color: green



MPS-IH GY - Insulating sleeve

0201728

<https://www.phoenixcontact.com/us/products/0201728>

Insulating sleeve, color: gray



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<https://www.phoenixcontact.com/us/products/3270221>

MPS-IH BK - Insulating sleeve

0201731

<https://www.phoenixcontact.com/us/products/0201731>

Insulating sleeve, color: black



ST-BW 0 - Actuation tool

1200135

<https://www.phoenixcontact.com/us/products/1200135>

Actuation tool, for all 1.5 mm² spring cages from PT 1,5/S and FT 1,5/S



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