

PTRV 8-PV /BU - Potential distributors



3270249

<https://www.phoenixcontact.com/us/products/3270249>

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Potential distributors, nom. voltage: 250 V, nominal current: 17.5 A, connection method: Push-in connection, 1st, 2nd, 3rd, 4th, 5th, 6th, 7th and 8th level, Rated cross section: 1.5 mm², cross section: 0.14 mm² - 2.5 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.
- Potential distributor for distributing potentials up to 17.5 A
- Tool-free wiring in a confined space thanks to compact size
- The 2.3 mm test pick-off enables testing between the conductors with commercially available test probes

Commercial data

Item number	3270249
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	BE62
Product key	BE6211
Catalog page	Page 51 (C-1-2019)
GTIN	4055626282541
Weight per piece (including packing)	33.8 g
Weight per piece (excluding packing)	33.8 g
Customs tariff number	85369010
Country of origin	PL

Technical data

Product properties

Product type	Potential distributor
Number of positions	2
Number of connections	32
Number of rows	8
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

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

1st, 2nd, 3rd, 4th, 5th, 6th, 7th and 8th level

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
Maximum load current	20 A (in case of a 2.5 mm ² conductor cross section, the maximum load current must not be exceeded by the total current of all connected conductors.)
Nominal voltage	250 V
Nominal cross section	1.5 mm ²

1st, 2nd, 3rd, 4th, 5th, 6th, 7th and 8th level Connection cross sections directly pluggable

Conductor cross section rigid	0.34 mm ² ... 2.5 mm ²
Conductor cross section, rigid [AWG]	20 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.34 mm ² ... 1.5 mm ²
Flexible conductor cross section (ferrule with plastic sleeve)	0.34 mm ² ... 1.5 mm ²

Dimensions

Width	8.3 mm
Height	100 mm

PTRV 8-PV /BU - Potential distributors



3270249

<https://www.phoenixcontact.com/us/products/3270249>

Depth on NS 35/7,5	87.5 mm
Depth on NS 35/15	95 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

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 1.5 mm ²	0.18 kA
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

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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

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 (m/s ²) ² /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.)
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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 35/7,5
	NS 35/15

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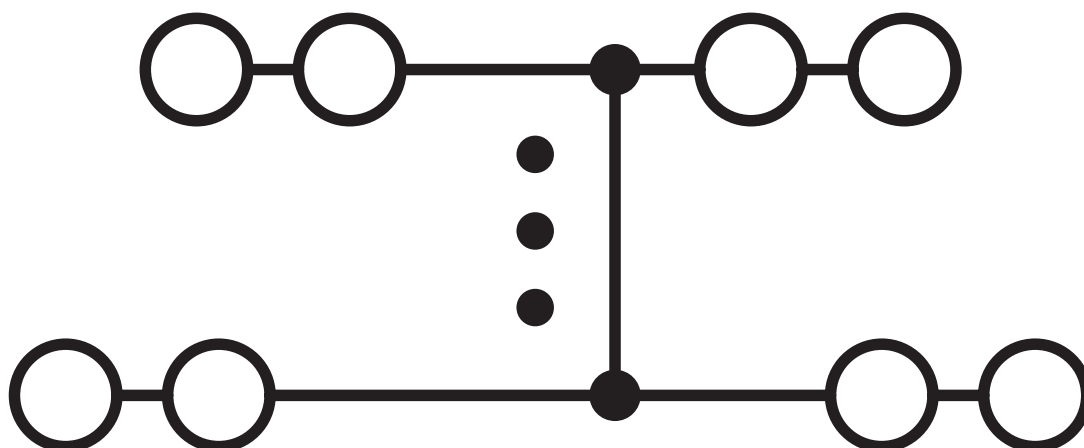


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Drawings

Circuit diagram



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Approvals


To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3270249>

 **CSA**
Approval ID: 2030668

 **CSA**
Approval ID: 2030668

 **IECEE CB Scheme**
Approval ID: NL-58817

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	250 V	17.5 A	-	-

 **EAC**
Approval ID: RU C-DE.BL08.B.00682

 **cULus Recognized**
Approval ID: E60425

 **KEMA-KEUR**
Approval ID: 71-102890

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Only flexible conductors	250 V	17.5 A	-	0.14 - 1.5
Only rigid conductors	250 V	17.5 A	-	0.14 - 2.5

 **cULus Recognized**
Approval ID: E60425

DNV
Approval ID: TAE000016Y

 **cULus Recognized**
Approval ID: E60425

 **cULus Recognized**
Approval ID: E60425

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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
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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

DP-PTRV 8 - Spacer plate

3270166

<https://www.phoenixcontact.com/us/products/3270166>



Spacer plate, depth: 86 mm, width: 8.3 mm, height: 100 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>

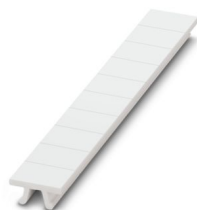


Reducing plug, number of positions: 1, color: gray

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

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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

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

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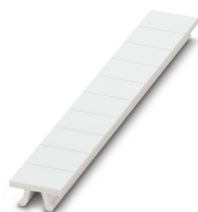
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ZB 8,3 CUS - Zack marker strip

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

TM-PTRV 8,QR:1-8 - Marker for terminal blocks

0803468

<https://www.phoenixcontact.com/us/products/0803468>



Marker for terminal blocks, white, labeled, mounting type: snapped, for terminal block width: 8 mm, lettering field size: 2.4 x 9.2 mm, Number of individual labels: 2

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TM-PTRV 8,QR:8-1 - Marker for terminal blocks

0803470

<https://www.phoenixcontact.com/us/products/0803470>



Marker for terminal blocks, white, labeled, mounting type: snapped, for terminal block width: 8 mm, lettering field size: 2.4 x 9.2 mm

TM-PTRV 8,QR:A-H - Marker for terminal blocks

0803471

<https://www.phoenixcontact.com/us/products/0803471>



Marker for terminal blocks, white, labeled, mounting type: snapped, for terminal block width: 8 mm, lettering field size: 2.4 x 9.2 mm

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TM-PTRV 8,QR:H-A - Marker for terminal blocks

0803473

<https://www.phoenixcontact.com/us/products/0803473>



Marker for terminal blocks, white, labeled, mounting type: snapped, for terminal block width: 8 mm, lettering field size: 2.4 x 9.2 mm, Number of individual labels: 8

D-PTRV 8 WH - End cover

3270154

<https://www.phoenixcontact.com/us/products/3270154>



End cover, depth: 80.8 mm, width: 3.8 mm, height: 100 mm, color: white

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<https://www.phoenixcontact.com/us/products/3270249>

D-PTRV 8 WH 1-8 - End cover

3270155

<https://www.phoenixcontact.com/us/products/3270155>



End cover, depth: 80.8 mm, width: 2.2 mm, height: 100 mm, color: white

D-PTRV 8 WH 1-8 LGS - End cover

3270240

<https://www.phoenixcontact.com/us/products/3270240>



End cover, depth: 80.8 mm, width: 2.2 mm, height: 100 mm, color: white

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D-PTRV 8 WH 8-1 - End cover

3270242

<https://www.phoenixcontact.com/us/products/3270242>



End cover, depth: 80.8 mm, width: 2.2 mm, height: 100 mm, color: white

D-PTRV 8 WH 8-1 LGS - End cover

3270244

<https://www.phoenixcontact.com/us/products/3270244>



End cover, depth: 80.8 mm, width: 2.2 mm, height: 100 mm, color: white

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D-PTRV 8 WH 1-16 - End cover

3270228

<https://www.phoenixcontact.com/us/products/3270228>



End cover, depth: 80.8 mm, width: 2.2 mm, height: 100 mm, color: white

D-PTRV 8 WH 1-16 LGS - End cover

3270229

<https://www.phoenixcontact.com/us/products/3270229>



End cover, depth: 80.8 mm, width: 2.2 mm, height: 100 mm, color: white

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<https://www.phoenixcontact.com/us/products/3270249>

D-PTRV 8 WH 9-16 - End cover

3270211

<https://www.phoenixcontact.com/us/products/3270211>



End cover, depth: 80.8 mm, width: 2.2 mm, height: 100 mm, color: white

D-PTRV 8 WH 9-16 LGS - End cover

3270212

<https://www.phoenixcontact.com/us/products/3270212>



End cover, depth: 80.8 mm, width: 2.2 mm, height: 100 mm, color: white

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D-PTRV 8 WH 17-24 - End cover

3270213

<https://www.phoenixcontact.com/us/products/3270213>



End cover, depth: 80.8 mm, width: 2.2 mm, height: 100 mm, color: white

D-PTRV 8 WH 17-24 LGS - End cover

3270214

<https://www.phoenixcontact.com/us/products/3270214>



End cover, depth: 80.8 mm, width: 2.2 mm, height: 100 mm, color: white

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D-PTRV 8 WH 25-32 - End cover

3270215

<https://www.phoenixcontact.com/us/products/3270215>



End cover, depth: 80.8 mm, width: 2.2 mm, height: 100 mm, color: white

D-PTRV 8 WH 25-32 LGS - End cover

3270216

<https://www.phoenixcontact.com/us/products/3270216>



End cover, depth: 80.8 mm, width: 2.2 mm, height: 100 mm, color: white

PTRV 8-PV /BU - Potential distributors

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D-PTRV 8 WH A-H - End cover

3270156

<https://www.phoenixcontact.com/us/products/3270156>



End cover, depth: 80.8 mm, width: 2.2 mm, height: 100 mm, color: white

D-PTRV 8 WH A-H LGS - End cover

3270241

<https://www.phoenixcontact.com/us/products/3270241>



End cover, depth: 80.8 mm, width: 2.2 mm, height: 100 mm, color: white

PTRV 8-PV /BU - Potential distributors



3270249

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D-PTRV 8 WH H-A - End cover

3270243

<https://www.phoenixcontact.com/us/products/3270243>



End cover, depth: 80.8 mm, width: 2.2 mm, height: 100 mm, color: white

D-PTRV 8 WH H-A LGS - End cover

3270245

<https://www.phoenixcontact.com/us/products/3270245>



End cover, depth: 80.8 mm, width: 2.2 mm, height: 100 mm, color: white

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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

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

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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

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

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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

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

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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

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

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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



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



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CLIPFIX 35-5 - End bracket

3022276

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

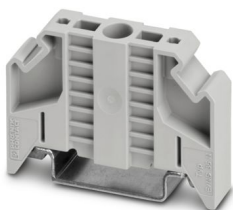


Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, with parking option for FBS...5, FBS...6, KSS 5, KSS 6, width: 5.15 mm, color: gray

E/NS 35 N - End bracket

0800886

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



End clamp, width: 9.5 mm, color: gray

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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



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



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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

MPS-IH WH - Insulating sleeve

0201663

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

Insulating sleeve, color: white



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<https://www.phoenixcontact.com/us/products/3270249>

MPS-IH RD - Insulating sleeve

0201676

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

Insulating sleeve, color: red

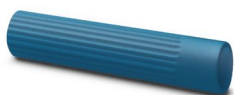


MPS-IH BU - Insulating sleeve

0201689

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

Insulating sleeve, color: blue



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<https://www.phoenixcontact.com/us/products/3270249>

MPS-IH YE - Insulating sleeve

0201692

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

Insulating sleeve, color: yellow



MPS-IH GN - Insulating sleeve

0201702

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

Insulating sleeve, color: green



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MPS-IH GY - Insulating sleeve

0201728

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

Insulating sleeve, color: gray



MPS-IH BK - Insulating sleeve

0201731

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

Insulating sleeve, color: black



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SZF 0-0,4X2,5 - Screwdriver

1204504

<https://www.phoenixcontact.com/us/products/1204504>



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.4 x 2.5 x 75 mm, 2-component grip, with non-slip grip

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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