

# PTRV 8-PV BU/BK - Potential distributors



3270145

<https://www.phoenixcontact.com/sg/products/3270145>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



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 mm<sup>2</sup>, cross section: 0.14 mm<sup>2</sup> - 2.5 mm<sup>2</sup>, mounting: NS 35/7,5, NS 35/15, color: blue, color of connection elements: black

## Your advantages

- Tool-free wiring in a confined space thanks to compact size
- Potential distributor for distributing potentials up to 17.5 A in EXi areas
- High contact quality thanks to push-in technology as a replacement for Wire-Wrap®, TERMI-POINT®, etc.
- The 2.3 mm test pick-off enables testing between the conductors with commercially available test probes

## Commercial data

Item number	3270145
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	*****
Product key	BE6211
Catalog page	Page 51 (C-1-2019)
GTIN	4046356796200
Weight per piece (including packing)	33.74 g
Weight per piece (excluding packing)	33.74 g
Customs tariff number	85369010
Country of origin	PL

# PTRV 8-PV BU/BK - Potential distributors



3270145

<https://www.phoenixcontact.com/sg/products/3270145>

## Technical data

### Product properties

Product type	Potential distributor
Number of positions	2
Number of connections	32
Number of rows	8
Potentials	1

### Data management status

Article revision	02
------------------	----

### Insulation characteristics

Overvoltage category	III
----------------------	-----

### 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 <sup>2</sup>

#### 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 <sup>2</sup> ... 2.5 mm <sup>2</sup>
Cross section AWG	26 ... 14 (converted acc. to IEC)
Conductor cross section flexible	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section, flexible [AWG]	26 ... 16 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Flexible conductor cross section (ferrule with plastic sleeve)	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Nominal current	17.5 A
Maximum load current	20 A (in case of a 2.5 mm <sup>2</sup> 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 <sup>2</sup>

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

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

## Dimensions

# PTRV 8-PV BU/BK - Potential distributors



3270145

<https://www.phoenixcontact.com/sg/products/3270145>

Width	8.3 mm
Height	100 mm
Depth on NS 35/7,5	87.5 mm
Depth on NS 35/15	95 mm

## Material specifications

Color	blue (RAL 5015)
Color of connection elements	black
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 <sup>2</sup>	0.18 kA
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
-----------------	-----

## Mechanical tests

# PTRV 8-PV BU/BK - Potential distributors



3270145

<https://www.phoenixcontact.com/sg/products/3270145>

## Mechanical strength

Result	Test passed
--------	-------------

## 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 <sup>2</sup> / 0.2 kg
	1.5 mm <sup>2</sup> / 0.4 kg
	2.5 mm <sup>2</sup> / 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 <sup>2</sup> ) <sup>2</sup> /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)
---------------------------------	---

# PTRV 8-PV BU/BK - Potential distributors



3270145

<https://www.phoenixcontact.com/sg/products/3270145>

	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
----------------------------------	---------------

## Mounting

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

# PTRV 8-PV BU/BK - Potential distributors

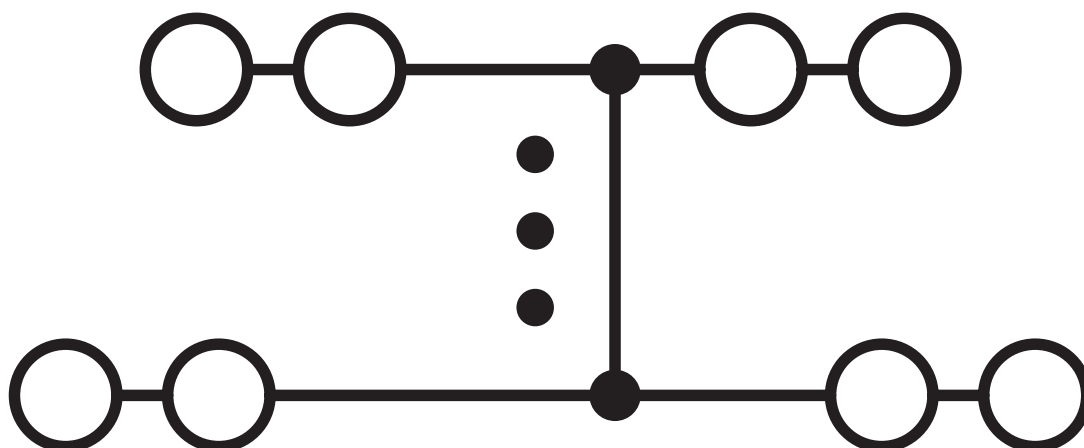


3270145

<https://www.phoenixcontact.com/sg/products/3270145>

## Drawings

Circuit diagram



# PTRV 8-PV BU/BK - Potential distributors





3270145


<https://www.phoenixcontact.com/sg/products/3270145>


## Approvals


To download certificates, visit the product detail page: <https://www.phoenixcontact.com/sg/products/3270145>

 <b>CSA</b> Approval ID: 2030668				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Use group B	300 V	10 A	26 - 14	-
Use group D	300 V	10 A	26 - 14	-

 <b>IECEE CB Scheme</b> Approval ID: NL-58817				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	250 V	17.5 A	-	-


 <b>EAC</b> Approval ID: RU C-DE.BL08.B.00682				
---	--	--	--	--

 <b>cULus Recognized</b> Approval ID: E60425				
--	--	--	--	--

 <b>KEMA-KEUR</b> Approval ID: 71-102890				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Only flexible conductors	250 V	17.5 A	-	0.14 - 1.5
Only rigid conductors	250 V	17.5 A	-	0.14 - 2.5

 <b>cULus Recognized</b> Approval ID: E60425				
--	--	--	--	--

<b>DNV</b> Approval ID: TAE000016Y				
---------------------------------------	--	--	--	--

 <b>cULus Recognized</b> Approval ID: E60425				
--	--	--	--	--

# PTRV 8-PV BU/BK - Potential distributors



3270145

<https://www.phoenixcontact.com/sg/products/3270145>

## Classifications

### ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250119

### ETIM

ETIM 9.0	EC000897
----------	----------

### UNSPSC

UNSPSC 21.0	39121400
-------------	----------



# PTRV 8-PV BU/BK - Potential distributors



3270145

<https://www.phoenixcontact.com/sg/products/3270145>

## 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%
-------------------------------------	----------------------------

Phoenix Contact 2024 © - all rights reserved  
<https://www.phoenixcontact.com>

PHOENIX CONTACT SEA Pte. Ltd.  
105 Eunos Avenue 3, #04-00  
Singapore 409836  
+65 6228 4900  
[marketing@phoenixcontact.com.sg](mailto:marketing@phoenixcontact.com.sg)