

## Potential distributors - PTRVB 4-FI /RD - 3270220

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Potential distributors, with option to supply up to 6 mm<sup>2</sup>, nom. voltage: 250 V, nominal current: 17.5 A, cross section: 0.14 mm<sup>2</sup> - 2.5 mm<sup>2</sup>, AWG: 14 - 26, connection method: Push-in connection, number of positions: 2, number of connections: 13, width: 8.3 mm, length: 64 mm, color: gray, color of connection elements: red, mounting: NS 35/7,5, NS 35/15

### Your advantages

- ✔ Distributor terminal block in red for 24 V DC power supplies
- ✔ Bridgeable potential distributor with option to supply up to 6 mm<sup>2</sup>
- ✔ 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



### Key Commercial Data

Packing unit	10 pc
GTIN	 4 055626 186368
GTIN	4055626186368

### Technical data

#### General

Number of positions	2
Number of levels	4
Number of connections	13
Potentials	1
Nominal cross section	1.5 mm <sup>2</sup>
Nominal cross section feed-in	4 mm <sup>2</sup>
Color	gray
Color of connection elements	red
Insulating material	PA
Flammability rating according to UL 94	V0
Rated surge voltage	4 kV
Overvoltage category	III

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## Technical data

### General

Insulating material group	I
Maximum power dissipation for nominal condition	0.56 W (the value is multiplied when connecting multiple levels)
Designation	Level 1+2+3 above 1
Maximum load current	24 A (per chamber with 2.5 mm <sup>2</sup> conductor cross section)
Maximum total current	37 A (per potential distributor)
Nominal current I <sub>N</sub>	17.5 A (with 1.5 mm <sup>2</sup> conductor cross section)
Nominal voltage U <sub>N</sub>	250 V
Designation	Level 1 above 1
Maximum load current	37 A (Service Entrance)
Nominal current I <sub>N</sub>	32 A (Supply, for 4 mm <sup>2</sup> conductor cross section)
Nominal voltage U <sub>N</sub>	250 V
Open side panel	Yes
Shock protection test specification	DIN EN 50274 (VDE 0660-514):2002-11
Back of the hand protection	guaranteed
Finger protection	guaranteed
Result of surge voltage test	Test passed
Surge voltage test setpoint	4.8 kV
Result of power-frequency withstand voltage test	Test passed
Power frequency withstand voltage setpoint	1.5 kV
Result of the test for mechanical stability of terminal points (5 x conductor connection)	Test passed
Result of bending test	Test passed
Bending test rotation speed	10 rpm
Bending test turns	135
Bending test 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
	0.2 mm <sup>2</sup> / 0.2 kg
	4 mm <sup>2</sup> / 0.9 kg
	6 mm <sup>2</sup> / 1.4 kg
Tensile test result	Test passed
Conductor cross section tensile test	0.14 mm <sup>2</sup>
Tractive force setpoint	10 N
Conductor cross section tensile test	1.5 mm <sup>2</sup>
Tractive force setpoint	40 N
Conductor cross section tensile test	2.5 mm <sup>2</sup>
Tractive force setpoint	50 N
Result of tight fit on support	Test passed
Tight fit on carrier	NS 35
Setpoint	1 N
Result of voltage-drop test	Test passed

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### Technical data

#### General

Requirements, voltage drop	≤ 3.2 mV
Result of temperature-rise test	Test passed
Short circuit stability result	Test passed
Conductor cross section short circuit testing	1.5 mm <sup>2</sup>
Short-time current	0.18 kA
Conductor cross section short circuit testing	2.5 mm <sup>2</sup>
Short-time current	0.3 kA
Conductor cross section short circuit testing	4 mm <sup>2</sup>
Short-time current	0.48 kA
Conductor cross section short circuit testing	6 mm <sup>2</sup>
Short-time current	0.72 kA
Result of thermal test	Test passed
Ageing test for screwless modular terminal block temperature cycles	192
Proof of thermal characteristics (needle flame) effective duration	30 s
Result of aging test	Test passed
Oscillation, broadband noise test result	Test passed
Test specification, oscillation, broadband noise	DIN EN 50155 (VDE 0115-200):2008-03
Test spectrum	Service life test category 2, bogie-mounted
Test frequency	f <sub>1</sub> = 5 Hz to f <sub>2</sub> = 250 Hz
ASD level	6.12 (m/s <sup>2</sup> )/Hz
Acceleration	3.12 g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Shock test result	Test passed
Test specification, shock test	DIN EN 50155 (VDE 0115-200):2008-03
Shock form	Half-sine
Acceleration	30g
Shock duration	18 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
Relative insulation material temperature index (Elec., UL 746 B)	130 °C
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	125 °C
Static insulating material application in cold	-60 °C
Behavior in fire for rail vehicles (DIN 5510-2)	Test passed
Flame test method (DIN EN 60695-11-10)	V0
Oxygen index (DIN EN ISO 4589-2)	>32 %
NF F16-101, NF F10-102 Class I	2
NF F16-101, NF F10-102 Class F	2
Surface flammability NFPA 130 (ASTM E 162)	passed
Specific optical density of smoke NFPA 130 (ASTM E 662)	passed

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#### General

Smoke gas toxicity NFPA 130 (SMP 800C)	passed
Calorimetric heat release NFPA 130 (ASTM E 1354)	27,5 MJ/kg
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

#### Dimensions

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

#### Connection data

Connection method	Push-in connection
Stripping length	8 mm ... 10 mm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section AWG min.	26
Conductor cross section AWG max.	14
Conductor cross section flexible min.	0.14 mm <sup>2</sup>
Conductor cross section flexible max.	1.5 mm <sup>2</sup>
Min. AWG conductor cross section, flexible	26
Max. AWG conductor cross section, flexible	14
Conductor cross section flexible, with ferrule without plastic sleeve min.	0.14 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve max.	1.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.14 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve max.	1.5 mm <sup>2</sup>
Connection	Feed-in stage
Note	Only the "CRIMPFOX 6" crimping pliers may be used for crimping with 6 mm <sup>2</sup> stranded and ferrule.
Stripping length	10 mm ... 12 mm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	6 mm <sup>2</sup>
Conductor cross section AWG min.	24
Conductor cross section AWG max.	10
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	6 mm <sup>2</sup>
Min. AWG conductor cross section, flexible	24
Max. AWG conductor cross section, flexible	10

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## Technical data

### Connection data

Conductor cross section flexible, with ferrule without plastic sleeve min.	0.2 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve max.	6 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.2 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve max.	6 mm <sup>2</sup>

### Standards and Regulations

Connection in acc. with standard	IEC 60947-7-1
	IEC 60947-7-1
Flammability rating according to UL 94	V0
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

### Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

## Approvals

### Approvals

#### Approvals

DNV GL / UL Recognized / KEMA-KEUR / cUL Recognized / IECCEB Scheme / EAC / EAC / cULus Recognized

#### Ex Approvals

### Approval details

DNV GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	TAE000016Y
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UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 60425
	B	D	
Nominal voltage UN	300 V	300 V	
Nominal current IN	25 A	25 A	
mm <sup>2</sup> /AWG/kcmil	12-10	12-10	

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### Approvals

KEMA-KEUR		<a href="http://www.dekra-certification.com">http://www.dekra-certification.com</a>	71-102890
Nominal voltage UN		250 V	
Nominal current IN		17.5 A	
mm <sup>2</sup> /AWG/kcmil		0.14-2.5	

cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 60425
	B	D	
Nominal voltage UN	300 V	300 V	
Nominal current IN	25 A	25 A	
mm <sup>2</sup> /AWG/kcmil	12-10	12-10	

IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	NL-58817
Nominal voltage UN		250 V	
Nominal current IN		17.5 A	

EAC		B.01742
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EAC		RU C- DE.AI30.B.01102
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cULus Recognized	
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PHOENIX CONTACT GmbH & Co. KG  
Flachmarktstr. 8  
32825 Blomberg  
Germany  
Tel. +49 5235 300  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.com>