

Potential distributors - FTRV 4-PV /BK - 3270178

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Potential distributors, without actuation lever, nom. voltage: 250 V, nominal current: 17.5 A, cross section: 0.14 mm² - 2.5 mm², AWG: 14 - 26, connection method: Push-in connection, number of positions: 2, number of connections: 16, width: 8.3 mm, length: 64 mm, color: gray, color of connection elements: black, mounting: NS 35/7,5, NS 35/15

Your advantages

- ✔ Potential distributor for distributing potentials up to 17.5 A
- ✔ 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
- ✔ The 2.3 mm test connection enables testing between the conductors with test pins commonly used in the industry

Key Commercial Data

Packing unit	10 pc
Minimum order quantity	10 pc
GTIN	
GTIN	4046356796316
Weight per Piece (excluding packing)	16.720 g
Custom tariff number	85369010
Country of origin	Poland

Technical data

General

Number of positions	2
Number of levels	4
Number of connections	16
Potentials	1
Nominal cross section	1.5 mm ²
Color	gray
Color of connection elements	black
Insulating material	PA

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Technical data

General

Flammability rating according to UL 94	V0
Rated surge voltage	4 kV
Overvoltage category	III
Insulating material group	I
Maximum power dissipation for nominal condition	0.56 W (the value is multiplied when connecting multiple levels)
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 current I _N	17.5 A
Nominal voltage U _N	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 ² / 0.2 kg
	1.5 mm ² / 0.4 kg
	2.5 mm ² / 0.7 kg
Tensile test result	Test passed
Conductor cross section tensile test	0.14 mm ²
Tractive force setpoint	10 N
Conductor cross section tensile test	1.5 mm ²
Tractive force setpoint	40 N
Conductor cross section tensile test	2.5 mm ²
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
Requirements, voltage drop	≤ 6,4 mV
Result of temperature-rise test	Test passed
Short circuit stability result	Test passed
Conductor cross section short circuit testing	1.5 mm ²

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General

Short-time current	0.18 kA
Conductor cross section short circuit testing	2.5 mm ²
Short-time current	0.3 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 ₁ = 5 Hz to f ₂ = 250 Hz
ASD level	6.12 (m/s ²) ² /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
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

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Technical data

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
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section solid min.	0.14 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section AWG min.	26
Conductor cross section AWG max.	14
Conductor cross section flexible min.	0.14 mm ²
Conductor cross section flexible max.	1.5 mm ²
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 ²
Conductor cross section flexible, with ferrule without plastic sleeve max.	1.5 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.14 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve max.	1.5 mm ²
Stripping length	8 mm ... 10 mm

Standards and Regulations

Connection in acc. with standard	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

Drawings

Circuit diagram



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Classifications

eCl@ss

eCl@ss 4.0	27141118
eCl@ss 4.1	27141118
eCl@ss 5.0	27141118
eCl@ss 5.1	27141100
eCl@ss 6.0	27141100
eCl@ss 7.0	27141120
eCl@ss 8.0	27141120
eCl@ss 9.0	27141120

ETIM

ETIM 3.0	EC000901
ETIM 4.0	EC000901
ETIM 5.0	EC000897
ETIM 6.0	EC000897

UNSPSC

UNSPSC 6.01	30211811
UNSPSC 7.0901	39121410
UNSPSC 11	39121410
UNSPSC 12.01	39121410
UNSPSC 13.2	39121410

Approvals

Approvals

Approvals

DNV GL / CSA / UL Recognized / KEMA-KEUR / cUL Recognized / IECCE CB Scheme / cULus Recognized

Ex Approvals

Approval details

DNV GL		http://exchange.dnv.com/tari/	TAE000016Y
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Approvals

CSA		http://www.csagroup.org/services-industries/product-listing/	13631
	D	B	
Nominal voltage UN	300 V	300 V	
Nominal current IN	10 A	10 A	
mm ² /AWG/kcmil	26-14	26-14	

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
	D		
Nominal voltage UN	300 V		
Nominal current IN	10 A		
mm ² /AWG/kcmil	26-14		

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

cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
	D		
Nominal voltage UN	300 V		
Nominal current IN	10 A		
mm ² /AWG/kcmil	26-14		

IECEE CB Scheme		http://www.iecee.org/	NL-50733
Nominal voltage UN	250 V		
Nominal current IN	17.5 A		

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Approvals

cULus Recognized



Accessories

Accessories

DIN rail

DIN rail perforated - NS 35/ 7,5 PERF 2000MM - 0801733



DIN rail perforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/ 7,5 UNPERF 2000MM - 0801681



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

DIN rail perforated - NS 35/ 7,5 WH PERF 2000MM - 1204119



DIN rail perforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/ 7,5 WH UNPERF 2000MM - 1204122



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

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DIN rail, unperforated - NS 35/ 7,5 AL UNPERF 2000MM - 0801704



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Aluminum, uncoated, length: 2000 mm, color: silver

DIN rail perforated - NS 35/ 7,5 ZN PERF 2000MM - 1206421



DIN rail perforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/ 7,5 ZN UNPERF 2000MM - 1206434



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/ 7,5 CU UNPERF 2000MM - 0801762



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Copper, uncoated, length: 2000 mm, color: copper-colored

End cap - NS 35/ 7,5 CAP - 1206560



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

Documentation

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Accessories

Mounting material - PT-IL - 3208090



Operating decal for the push-in Technology

End block

End clamp - CLIPFIX 35 - 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

End clamp - CLIPFIX 35-5 - 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

End clamp - E/NS 35 N - 0800886



End clamp, width: 9.5 mm, color: gray

End clamp - E/UK - 1201442



End clamp, width: 9.5 mm, height: 35.3 mm, material: PA, length: 50.5 mm, Mounting on a DIN rail NS 32 or NS 35, color: gray

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Accessories

End clamp - E/UK 1 - 1201413



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

End cover

End cover - D-PTRV 4 WH - 3270151



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

End cover - D-PTRV 4 WH 1-4 - 3270152



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

End cover - D-PTRV 4 WH 1-4 LGS - 3270234



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

End cover - D-PTRV 4 WH 4-1 - 3270236



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

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Accessories

End cover - D-PTRV 4 WH 4-1 LGS - 3270238



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

End cover - D-PTRV 4 WH A-D - 3270153



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

End cover - D-PTRV 4 WH A-D LGS - 3270235



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

End cover - D-PTRV 4 WH D-A - 3270237



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

End cover - D-PTRV 4 WH D-A LGS - 3270239



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

Insulating sleeve

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Accessories

Insulating sleeve - MPS-IH WH - 0201663

Insulating sleeve, color: white



Insulating sleeve - MPS-IH RD - 0201676

Insulating sleeve, color: red



Insulating sleeve - MPS-IH BU - 0201689

Insulating sleeve, color: blue



Insulating sleeve - MPS-IH YE - 0201692

Insulating sleeve, color: yellow



Insulating sleeve - MPS-IH GN - 0201702

Insulating sleeve, color: green



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Accessories

Insulating sleeve - MPS-IH GY - 0201728

Insulating sleeve, color: gray



Insulating sleeve - MPS-IH BK - 0201731

Insulating sleeve, color: black



Labeled terminal marker

Zack marker strip - ZB 8,3,LGS:FORTL.ZAHLEN - 0803480



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

Zack marker strip - ZB 8,3,QR:FORTL.ZAHLEN - 0803479



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

Zack marker strip - ZB 8,3 CUS - 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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Accessories

Marker for terminal blocks - TM-PTRV 4,QR:1-4 - 0803464



Marker for terminal blocks, white, labeled, mounting type: snapped, for terminal block width: 4 mm, lettering field size: 2,4x 9,2 mm

Marker for terminal blocks - TM-PTRV 4,QR:4-1 - 0803465



Marker for terminal blocks, white, labeled, mounting type: snapped, for terminal block width: 4 mm, lettering field size: 2,4x 9,2 mm

Marker for terminal blocks - TM-PTRV 4,QR:A-D - 0803466



Marker for terminal blocks, white, labeled, mounting type: snapped, for terminal block width: 4 mm, lettering field size: 2,4x 9,2 mm

Marker for terminal blocks - TM-PTRV 4,QR:D-A - 0803467



Marker for terminal blocks, white, labeled, mounting type: snapped, for terminal block width: 4 mm, lettering field size: 2,4x 9,2 mm

Mounting material

Retaining bracket - CDC-PTRV - 3270167



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

Partition plate

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Accessories

Spacer plate - DP-PTRV 4 - 3270163



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

Screwdriver tools

Screwdriver - SZF 0-0,4X2,5 - 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

Actuation tool - ST-BW 0 - 1200135



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

Terminal marking

Zack marker strip - ZB 8,3:UNBEDRUCKT - 0803444



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

Test plug terminal block

Reducing plug - RPS - 0201647



Reducing plug, color: gray

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Accessories

Test plugs - MPS-MT - 0201744



Test plugs, with solder connection up to 1 mm² conductor cross section, color: gray

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