

PT 2X1-VF-120AC-ST - Surge protection plug



2856799

<https://www.phoenixcontact.com/ca/products/2856799>

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Protective connector with protective circuit free of leakage current for two floating signals. Connection in series, consisting of varistor and gas-filled surge arrester between signal wires and ground.

Your advantages

- Easy testing and documentation with CHECKMASTER 2 with pluggable protective modules
- Maximum ease of maintenance, thanks to the 2-piece design
- Easy selection for all possible demands in MCR applications with a complete product portfolio
- The signal is not influenced during maintenance work, thanks to the impedance-neutral insertion and removal of protective plugs

Commercial data

Item number	2856799
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL32
Product key	CL2111
Catalog page	Page 138 (C-4-2019)
GTIN	4017918974558
Weight per piece (including packing)	25.6 g
Weight per piece (excluding packing)	25.6 g
Customs tariff number	85363010
Country of origin	DE

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Technical data

Product properties

Product type	Surge protection for MCR technology
Product family	PLUGTRAB PT
IEC test classification	C1
	C2
	C3
Type	Male
Number of positions	2
Arrester can be tested with CHECKMASTER from software version:	SW Version 2.13 or later

Insulation characteristics

Overvoltage category	III
Pollution degree	2

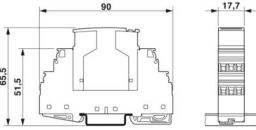
Electrical properties

Nominal voltage U_N	120 V AC
Indicator/remote signaling	
Switching function	N/C contact

Connection data

Connection method	Screw connection (in connection with the base element)
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Dimensions

Dimensional drawing	
Width	17.5 mm
Height	44.8 mm
Depth	51.7 mm
Horizontal pitch	1 Div.
Complete module width	17.7 mm
Complete module height	90 mm
Complete module depth	65.5 mm

Material specifications

Color	black (RAL 9005)
Flammability rating according to UL 94	V-0
Housing material	PA 6.6

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Mechanical properties

Mechanical data

Open side panel	No
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Protective circuit

Direction of action	Line-Line & Line-Earth Ground
Maximum continuous voltage U_C	175 V AC
Rated current	6 A (with PT BE/FM)
Operating effective current I_C at U_C	$\leq 2 \mu A$
Residual current I_{PE}	$\leq 4 \mu A$
Nominal discharge current I_n (8/20) μs	3 kA
Pulse discharge current I_{imp} (10/350) μs	300 A
Total discharge current I_{total} (8/20) μs	8 kA
Max. discharge current I_{max} (8/20) μs	8 kA
Nominal pulse current I_{an} (10/1000) μs (line-earth)	40 A
Output voltage limitation at 1 kV/ μs (line-earth) spike	$\leq 800 V$
Output voltage limitation at 1 kV/ μs (line-earth) static	$\leq 800 V$
Residual voltage at I_n (conductor-ground)	$\leq 600 V$
Voltage protection level U_p	$\leq 1 kV$ (C2 - 2 kA)
Voltage protection level U_p (line-earth)	$\leq 900 V$ (C1 - 500 A)
	$\leq 950 V$ (C2 - 1 kA)
	$\leq 1 kV$ (C3 - 25 A)
	$\leq 1.1 kV$ (I_{imp} -300 A)
Response time t_A	$\leq 100 ns$
Capacity (Core-Earth)	typ. 3 pF
Resistance per path	0 Ω
Surge protection fault message	none
Max. required back-up fuse	6 A (gL/gG)
Impulse durability (line-earth)	C1 - 1 kV / 500 A
	C2 - 4 kV / 2 kA
	C3 - 25 A

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	$\leq 2000 m$ (amsl)

Standards and regulations

Air clearances and creepage distances

Standards/regulations	IEC 60664-1 / DIN VDE 0110-1
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Standards/specifications	EN 61643-21
Note	2002
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Note	2002

Mounting

Mounting type	on base element
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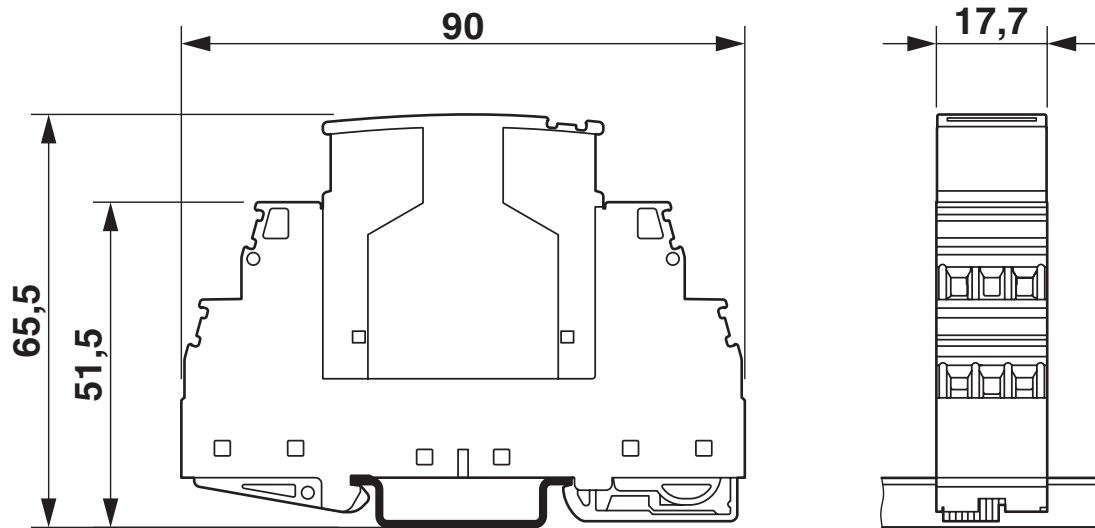
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Drawings

Dimensional drawing



The figure shows the complete module consisting of a base element and connector

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Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/ca/products/2856799>



EAC

Approval ID: RU C-DE.*09.B.00169

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Classifications

ECLASS

ECLASS-11.0	27130807
ECLASS-13.0	27171501

ETIM

ETIM 9.0	EC001625
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UNSPSC

UNSPSC 21.0	39121600
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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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Mandatory accessories

PT-BE/FM - Type 3 surge protection base element

2839282

<https://www.phoenixcontact.com/ca/products/2839282>

Base element for protective plug PT, for mounting on NS 35/7.5 and NS 35/15, housing width: 17.5 mm



Accessories

ZBF 5:UNBEDRUCKT - Zack Marker strip, flat

0808642

<https://www.phoenixcontact.com/ca/products/0808642>



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 5 mm, lettering field size: 5.1 x 5.2 mm, Number of individual labels: 10

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ZBF 5/WH-100:UNBEDRUCKT - Zack Marker strip, flat

0808668

<https://www.phoenixcontact.com/ca/products/0808668>



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snapped, for terminal block width: 5 mm, lettering field size: 5.15 x 5.15 mm, Number of individual labels: 1000

ZBF 5,LGS:FORTL.ZAHLEN - Zack Marker strip, flat

0808671

<https://www.phoenixcontact.com/ca/products/0808671>



Zack Marker strip, flat, Strip, white, labeled, printed horizontally: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 491 ... 500, mounting type: snapped, for terminal block width: 5 mm, lettering field size: 5.15 x 5.15 mm, Number of individual labels: 10

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ZBF 5,LGS:GERADE ZAHLEN - Zack Marker strip, flat

0810821

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Zack Marker strip, flat, Strip, white, labeled, printed horizontally: consecutive even numbers 2 ... 20, 22 ... 40, etc. up to 82 ... 100, mounting type: snapped, for terminal block width: 5 mm, lettering field size: 5.15 x 5.15 mm, Number of individual labels: 10

ZBF 5,LGS:UNGERADE ZAHLEN - Zack Marker strip, flat

0810863

<https://www.phoenixcontact.com/ca/products/0810863>



Zack Marker strip, flat, Strip, white, labeled, printed horizontally: Odd numbers 1 - 19, 21 - 39, etc. up to 81 - 99, mounting type: snapped, for terminal block width: 5 mm, lettering field size: 5.15 x 5.15 mm, Number of individual labels: 10

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ZBF 5,QR:FORTL.ZAHLEN - Zack Marker strip, flat

0808697

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Zack Marker strip, flat, Strip, white, labeled, Printed vertically: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: snapped, for terminal block width: 5 mm, lettering field size: 5.15 x 5.15 mm, Number of individual labels: 10

ZBN 18:UNBEDRUCKT - Zack marker strip

2809128

<https://www.phoenixcontact.com/ca/products/2809128>



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snapped, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

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SSA 3-6 - Shield connection

2839295

<https://www.phoenixcontact.com/ca/products/2839295>

Shield fast connection for 3 ... 6 mm cable diameter. Potential connecting cable:
200 mm, 1 mm², color: black



SSA 5-10 - Shield connection

2839512

<https://www.phoenixcontact.com/ca/products/2839512>

Shield fast connection for 5 ... 10 mm cable diameter. Potential connecting cable:
200 mm, 1 mm², color: black



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X-PEN 0,35 - Marker pen

0811228

<https://www.phoenixcontact.com/ca/products/0811228>



Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm

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