

Surge protection plug - PT 2X1-VF-230AC-ST



2921365

<https://www.phoenixcontact.com/us/products/2921365>

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.



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	2921365
Packing unit	1 pc
Minimum order quantity	10 pc
Note	Made to Order (non-returnable)
Sales Key	C07
Product Key	CL2111
Catalog Page	Page 138 (C-4-2019)
GTIN	4046356286572
Weight per Piece (including packing)	27.17 g
Weight per Piece (excluding packing)	23.33 g
Customs tariff number	85363010
Country of origin	DE

Surge protection plug - PT 2X1-VF-230AC-ST

2921365

<https://www.phoenixcontact.com/us/products/2921365>

Technical Data

Product properties

IEC test classification	C1
	C2
	C3
	D1
Type	Male
Product type	Surge protection for MCR technology
Number of positions	2
Surge protection fault message	none

Electrical properties

Indicator/remote signaling

Switching function	N/C contact
--------------------	-------------

Connection data

Connection method	Screw connection (in connection with the base element)
Screw thread	M3
Tightening torque	0.8 Nm
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section solid	0.2 mm ² ... 4 mm ²
Conductor cross section AWG	24 ... 12

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

Surge protection plug - PT 2X1-VF-230AC-ST



2921365

<https://www.phoenixcontact.com/us/products/2921365>

Mechanical properties

Mechanical data

Open side panel	No
-----------------	----

Protective circuit

Direction of action	Line-Line & Line-Earth Ground
Maximum continuous voltage U_C	250 V AC
Rated current	6 A
Operating effective current I_C at U_C	$\leq 2 \mu\text{A}$
Residual current I_{PE}	$\leq 2 \mu\text{A}$ (at U_N)
Nominal discharge current I_n (8/20) μs	3 kA
Pulse discharge current I_{imp} (10/350) μs	500 A
Total discharge current I_{total} (8/20) μs	8 kA
Total discharge current I_{total} (10/350) μs	1 kA
Max. discharge current I_{max} (8/20) μs	8 kA
Nominal pulse current I_{an} (10/1000) μs (line-earth)	100 A
Output voltage limitation at 1 kV/ μs (line-earth) static	≤ 1.4 kV
Residual voltage at I_n (conductor-conductor)	≤ 2 kV
Residual voltage at I_n (conductor-ground)	≤ 1 kV
Residual voltage with I_{an} (10/1000) μs (line-line)	≤ 1.4 kV
Residual voltage with I_{an} (10/1000) μs (line-earth)	≤ 700 V
Max. energy absorption (2 ms)	150 J
Voltage protection level U_p (line-line)	≤ 2.5 kV (C2 - 4 kV / 2 kA) ≤ 1.8 kV (C3 - 100 A) ≤ 2.6 kV (D1 - 500 A)
Voltage protection level U_p (line-earth)	≤ 1.1 kV (C1 - 500 A) ≤ 1.5 kV (C2 - 4 kV / 2 kA) ≤ 1.6 kV (C3 - 100 A) ≤ 1.8 kV (D1 - 500 A)
Response time t_A	≤ 100 ns
Capacity (Core-Core)	typ. 1.5 pF
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)	C2 - 4 kV / 2 kA C3 - 100 A D1 - 500 A

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
----------------------	------

Surge protection plug - PT 2X1-VF-230AC-ST



2921365

<https://www.phoenixcontact.com/us/products/2921365>

Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	≤ 2000 m (amsl (above mean sea level))

Standards and regulations

Standards/specifications	EN 61643-21
--------------------------	-------------

Mounting

Mounting type	on base element
---------------	-----------------

Surge protection plug - PT 2X1-VF-230AC-ST

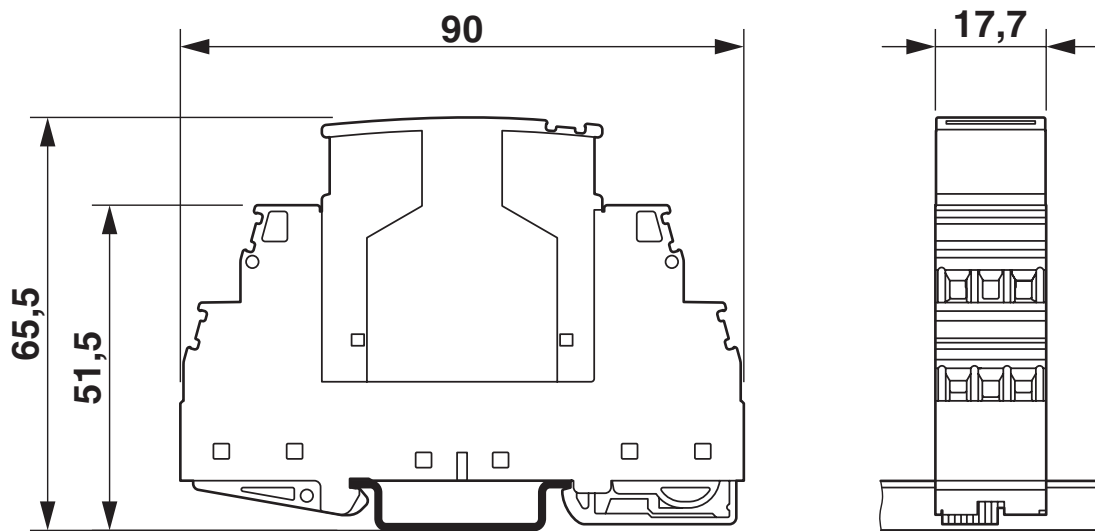
2921365

<https://www.phoenixcontact.com/us/products/2921365>



Drawings

Dimensional drawing



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

Surge protection plug - PT 2X1-VF-230AC-ST



2921365

<https://www.phoenixcontact.com/us/products/2921365>

Approvals



EAC

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

Surge protection plug - PT 2X1-VF-230AC-ST



2921365

<https://www.phoenixcontact.com/us/products/2921365>

Classifications

ECLASS

ECLASS-10.0.1	27130807
ECLASS-9.0	27130807
ECLASS-11.0	27130807

ETIM

ETIM 8.0	EC000943
----------	----------

UNSPSC

UNSPSC 21.0	39121600
-------------	----------

Surge protection plug - PT 2X1-VF-230AC-ST



2921365

<https://www.phoenixcontact.com/us/products/2921365>

Environmental Product Compliance

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

Surge protection plug - PT 2X1-VF-230AC-ST



2921365

<https://www.phoenixcontact.com/us/products/2921365>

Mandatory Accessories

Type 3 surge protection base element

Type 3 surge protection base element - PT-BE/FM - 2839282

<https://www.phoenixcontact.com/us/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

Marker pen

Marker pen - X-PEN 0,35 - 0811228

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

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



Surge protection plug - PT 2X1-VF-230AC-ST

2921365

<https://www.phoenixcontact.com/us/products/2921365>

Zack Marker strip, flat

Zack Marker strip, flat - ZBF 5:UNBEDRUCKT - 0808642

<https://www.phoenixcontact.com/us/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

Zack Marker strip, flat

Zack Marker strip, flat - ZBF 5/WH-100:UNBEDRUCKT - 0808668

<https://www.phoenixcontact.com/us/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

Surge protection plug - PT 2X1-VF-230AC-ST

2921365

<https://www.phoenixcontact.com/us/products/2921365>

Zack Marker strip, flat

Zack Marker strip, flat - ZBF 5,LGS:FORTL.ZAHLEN - 0808671

<https://www.phoenixcontact.com/us/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

Zack Marker strip, flat

Zack Marker strip, flat - ZBF 5,LGS:GERADE ZAHLEN - 0810821

<https://www.phoenixcontact.com/us/products/0810821>



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

Surge protection plug - PT 2X1-VF-230AC-ST

2921365

<https://www.phoenixcontact.com/us/products/2921365>

Zack Marker strip, flat

Zack Marker strip, flat - ZBF 5,LGS:UNGERADE ZAHLEN - 0810863

<https://www.phoenixcontact.com/us/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

Zack Marker strip, flat

Zack Marker strip, flat - ZBF 5,QR:FORTL.ZAHLEN - 0808697

<https://www.phoenixcontact.com/us/products/0808697>



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

Surge protection plug - PT 2X1-VF-230AC-ST

2921365

<https://www.phoenixcontact.com/us/products/2921365>

Zack marker strip

Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128

<https://www.phoenixcontact.com/us/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

Shield connection

Shield connection - SSA 3-6 - 2839295

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



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

Surge protection plug - PT 2X1-VF-230AC-ST



2921365

<https://www.phoenixcontact.com/us/products/2921365>

Shield connection

Shield connection - SSA 5-10 - 2839512

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

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



Phoenix Contact 2022 © - all rights reserved

<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com