

## Surge protection plug - PT 2X1-VF-120AC-ST - 2856799

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's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)




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

- ✓ Plugs can be checked with CHECKMASTER
- ✓ Maximum ease of maintenance thanks to the two-piece design
- ✓ Base element remains an integral part of the installation
- ✓ Protective devices for use in telecommunications and signaling networks according to IEC 61643-21
- ✓ Consistent plug-in signal circuit protection
- ✓ Impedance-neutral disconnection of plug for test and maintenance purposes



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 974558
GTIN	4017918974558
Weight per Piece (excluding packing)	29.000 g
Custom tariff number	85363010
Country of origin	Germany

### Technical data

#### Dimensions

Height	44.8 mm
Width	17.5 mm
Depth	51.7 mm
Horizontal pitch	1 Div.

## Surge protection plug - PT 2X1-VF-120AC-ST - 2856799

### Technical data

#### Dimensions

Complete module height	90 mm
Complete module width	17.7 mm
Complete module depth	65.5 mm

#### Ambient conditions

Ambient temperature (operation)	-40 °C ... 80 °C
Degree of protection	IP20

#### General

Housing material	PA 6.6
Flammability rating according to UL 94	V-0
Color	black
Standards for clearances and creepage distances	IEC 60664-1
	DIN VDE 0110-1
Overvoltage category	III
Degree of pollution	2
Mounting type	on base element
Type	Male
Number of positions	2
Direction of action	Line-Line & Line-Earth Ground
Arrester can be tested with CHECKMASTER from software version:	SW Version 2.13 or later

#### Protective circuit

IEC test classification	C1
	C2
	C3
Nominal voltage $U_N$	120 V AC
Maximum continuous voltage $U_C$	175 V AC
Rated current	6 A (with PT BE/FM)
Operating effective current $I_C$ at $U_C$	$\leq 2 \mu\text{A}$
Residual current $I_{PE}$	$\leq 4 \mu\text{A}$
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$	3 kA
Pulse discharge current $I_{imp}$ (10/350) $\mu\text{s}$	300 A
Total discharge current $I_{total}$ (10/350) $\mu\text{s}$	8 kA
Max. discharge current $I_{max}$ (8/20) $\mu\text{s}$	8 kA
Nominal pulse current $I_{an}$ (10/1000) $\mu\text{s}$ (line-earth)	40 A
Output voltage limitation at 1 kV/ $\mu\text{s}$ (line-earth) static	$\leq 800 \text{ V}$
Residual voltage at $I_n$ (line-earth)	$\leq 600 \text{ V}$

## Surge protection plug - PT 2X1-VF-120AC-ST - 2856799

### Technical data

#### Protective circuit

Residual voltage with $I_{an}$ (10/1000) $\mu$ s (line-earth)	$\leq 360$ V
Energy absorption	85 J
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	typ. 3 pF
Resistance per path	0 $\Omega$
Surge protection fault message	none
Max. required back-up fuse	6 A (with PT BE/FM)
Impulse durability (line-earth)	C1 - 1 kV / 500 A
	C2 - 4 kV / 2 kA
	C3 - 25 A

#### Connection data

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

#### Remote indication contact

Switching function	N/C contact
Maximum operating voltage $U_{max. AC}$	120 V AC
Max. operating current $I_{max}$	3 A

#### Standards and Regulations

Standards/regulations	EN 61643-21
	IEC 61643-21
Standards/specifications	EN 61643-21 2002

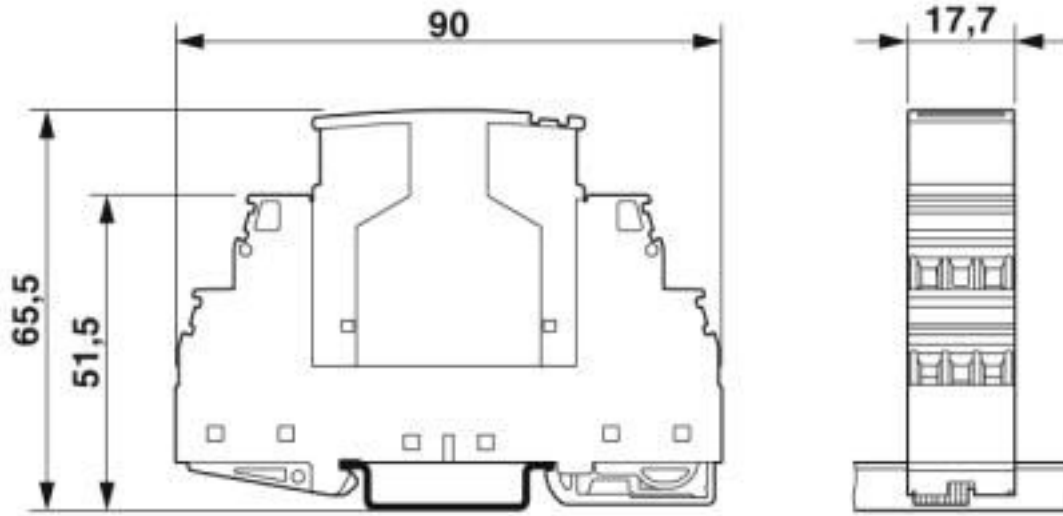
#### Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

### Drawings

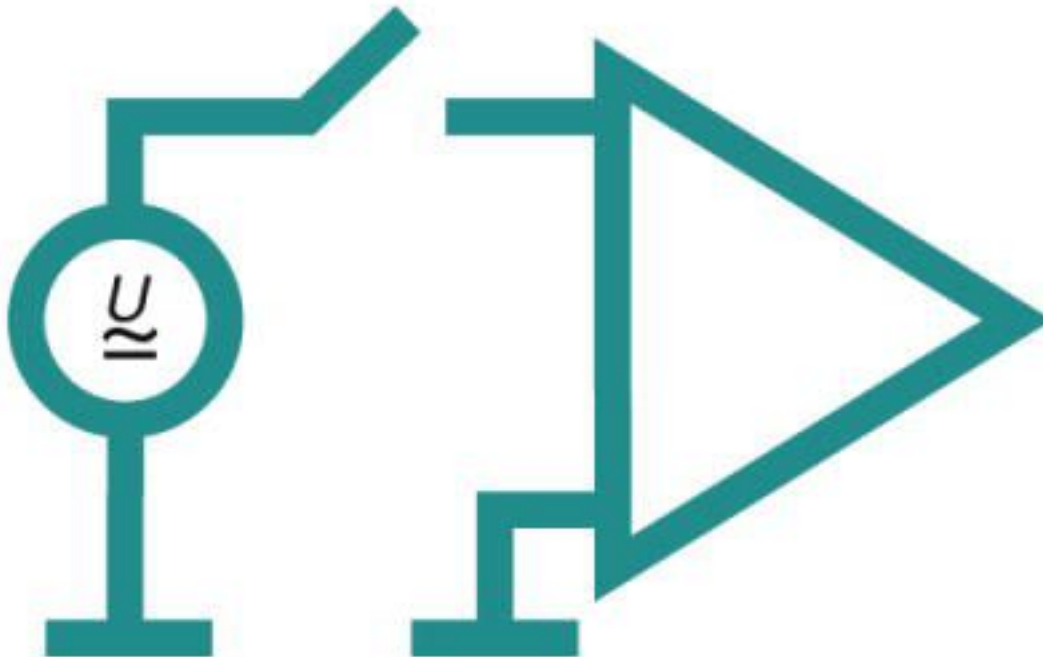
# Surge protection plug - PT 2X1-VF-120AC-ST - 2856799

Dimensional drawing



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

Pictogram



# Surge protection plug - PT 2X1-VF-120AC-ST - 2856799

## Classifications

### eCl@ss

eCl@ss 10.0.1	27130807
eCl@ss 4.0	27130800
eCl@ss 4.1	27130800
eCl@ss 5.0	27130800
eCl@ss 5.1	27130800
eCl@ss 6.0	27130800
eCl@ss 7.0	27130807
eCl@ss 8.0	27130807
eCl@ss 9.0	27130807

### ETIM

ETIM 2.0	EC000943
ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 5.0	EC000943
ETIM 6.0	EC000943
ETIM 7.0	EC000943

### UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620
UNSPSC 18.0	39121620
UNSPSC 19.0	39121620
UNSPSC 20.0	39121620
UNSPSC 21.0	39121620

## Approvals

### Approvals

---

Approvals

EAC

---

Ex Approvals

## Surge protection plug - PT 2X1-VF-120AC-ST - 2856799

### Approvals

---

#### Approval details

EAC		RU C- DE.A*30.B01561
-----	---	-------------------------

### Accessories

#### Accessories

#### Device marking

Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128



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

---

#### Labeled terminal marker

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



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

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



Zack Marker strip, flat, Strip, white, labeled, printed horizontally: consecutive numbers 2 ... 20, 22 ... 40, etc. up to 82 ... 100, mounting type: snap into flat marker groove, 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-120AC-ST - 2856799

### Accessories

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



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

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



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

### Marker pen

Marker pen - X-PEN 0,35 - 0811228



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

### Terminal marking

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



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

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



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into flat marker groove, 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-120AC-ST - 2856799

### Accessories

---

#### Necessary add-on products

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



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

---

#### Additional products

Shield connection - SSA 3-6 - 2839295



Shield fast connection for 3 ... 6 mm cable diameter. Potential connecting cable: 200 mm, 1 mm<sup>2</sup>, color: black

---

Shield connection - SSA 5-10 - 2839512



Shield fast connection for 5 ... 10 mm cable diameter. Potential connecting cable: 200 mm, 1 mm<sup>2</sup>, color: black

---