

## Surge protection plug - PT 2X1VA-120AC-ST - 2839185

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Protective plug PT with protective circuit for higher signal voltages, 2-channel, visual error warning. Nominal voltage: 120 V AC

### 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 182847
GTIN	4017918182847
Weight per Piece (excluding packing)	25.740 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 2X1VA-120AC-ST - 2839185

### 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 ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 2000 m (amsl (above mean sea level))
Degree of protection	IP20

#### General

Housing material	PA 6.6
Flammability rating according to UL 94	V-0
Color	jet black RAL 9005
Mounting type	on base element
Type	Male
Direction of action	Line-Line & Line-Earth Ground
Arrester can be tested with CHECKMASTER from software version:	From SW rev. 1.00

#### Additional descriptions

Note	Technical data is valid in association with the following specified base elements:
	PT -BE/ FM 2839282

#### Protective circuit

IEC test classification	C1
	C2
	C3
	D1
Nominal voltage $U_N$	120 V AC (50/60 Hz)
Maximum continuous voltage $U_C$	150 V DC
	150 V AC (50/60 Hz)
Rated current	26 A AC (30 °C)
	1 A DC (82 °C)
Operating effective current $I_C$ at $U_C$	≤ 1.5 mA AC
	≤ 2 mA DC
Residual current $I_{PE}$	≤ 3 mA AC
	≤ 4 mA DC
Nominal discharge current $I_n$ (8/20) $\mu$ s (line-earth)	2.5 kA
Pulse discharge current $I_{imp}$ (10/350) $\mu$ s	500 A

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### Technical data

#### Protective circuit

Total discharge current $I_{total}$ (8/20) $\mu$ s	5 kA
Output voltage limitation at 1 kV/ $\mu$ s (line-earth) spike	$\leq 380$ V
Output voltage limitation at 1 kV/ $\mu$ s (line-earth) static	$\leq 380$ V
Voltage protection level $U_p$ (line-earth)	$\leq 450$ V (C1 - 1.4 kV / 0.7 kA)
	$\leq 550$ V (C2 - 5 kV/2,5 kA)
	$\leq 400$ V (C3 - 100 A)
Response time $t_A$ (line-earth)	$\leq 25$ ns
Input attenuation aE, asym.	typ. 0.3 dB ( $\leq 300$ kHz / 150 $\Omega$ )
Cut-off frequency $f_g$ (3 dB), asym. (GND) in 150 Ohm system	typ. 1 MHz
Capacity (line-earth)	typ. 2.5 nF
Surge protection fault message	none
Max. required back-up fuse	25 A AC (gL/gG)
	1 A DC (T)
Impulse durability (line-earth)	C1 - 1,4 kV / 0,7 kA
	C2 - 5 kV / 2.5 kA
	C3 - 100 A
	D1 - 500 A

#### Connection data

Connection method	Screw connection (in connection with the base element)
Screw thread	M3
Tightening torque	0.5 Nm
Stripping length	8 mm
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section solid	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross section AWG	24 ... 12

#### Standards and Regulations

Standards/specifications	IEC 61643 2000 + corrigendum 2001 + A1:2008, modified + A2:2012
	EN 61643-21 2001 + A1:2009 + A2:2013

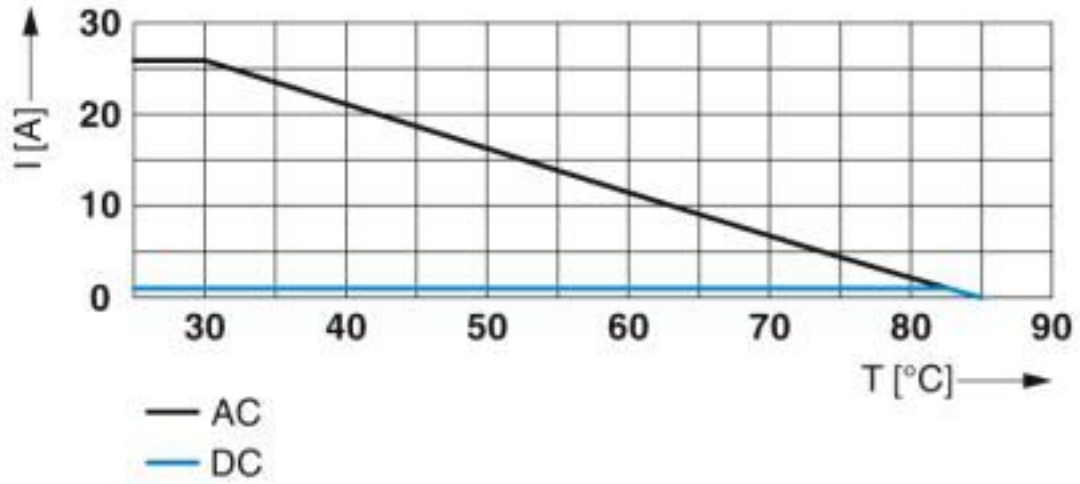
#### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

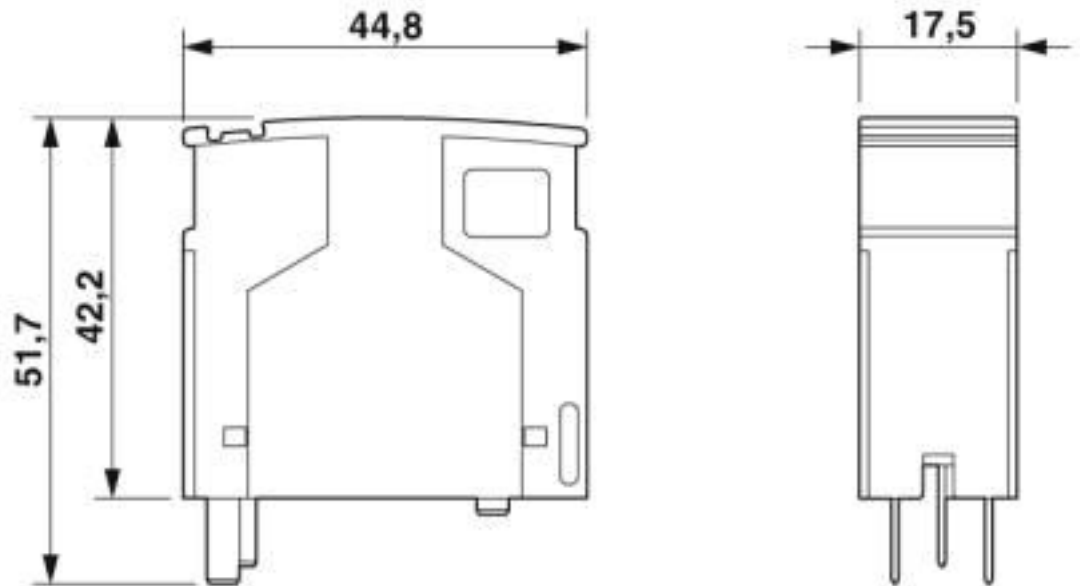
### Drawings

# Surge protection plug - PT 2X1VA-120AC-ST - 2839185

Diagram

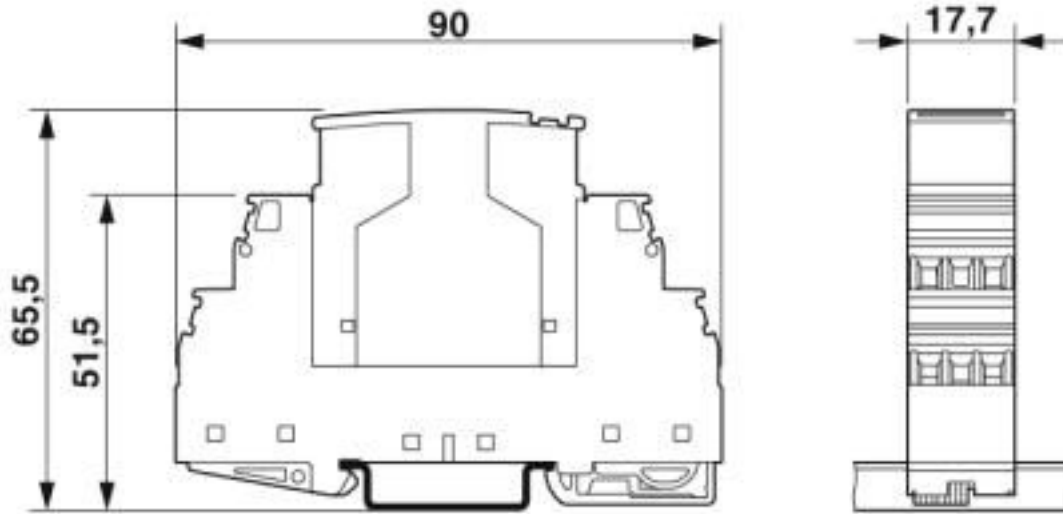


Dimensional drawing



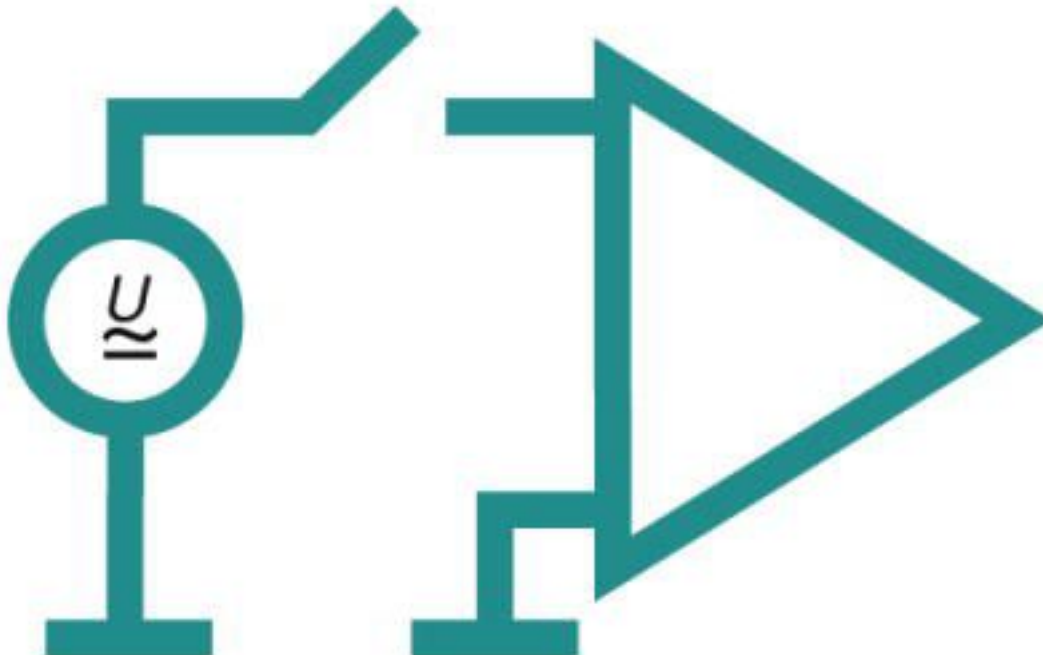
## Surge protection plug - PT 2X1VA-120AC-ST - 2839185

Dimensional drawing



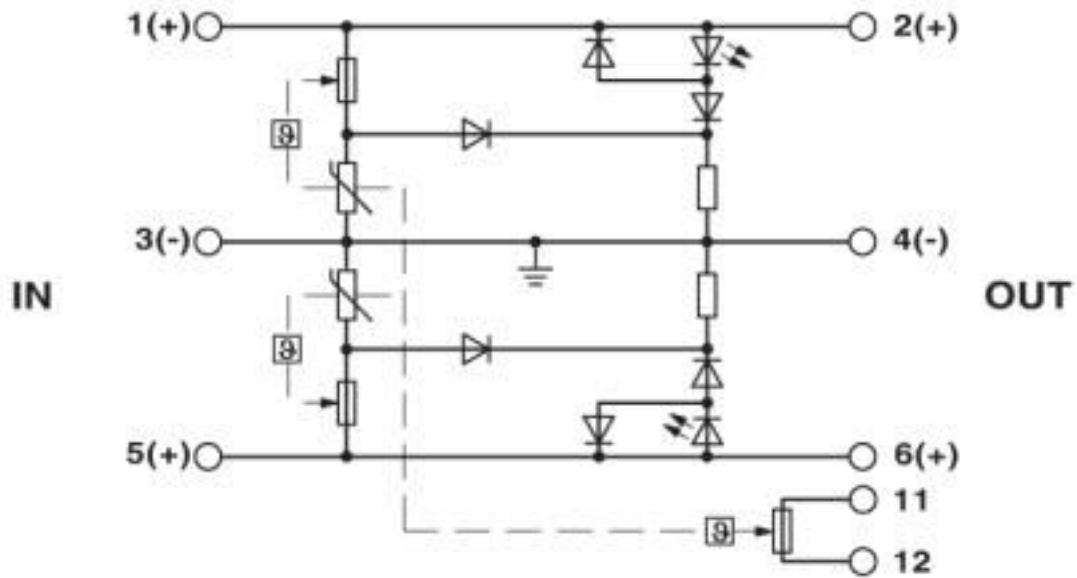
The figure shows the complete module consisting of a base element and connector

Pictogram



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Circuit diagram



### 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
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## Classifications

### UNSPSC

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

UL Listed / EAC / EAC

Ex Approvals

### Approval details

UL Listed		<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 138168
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EAC		EAC-Zulassung
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EAC		RU C- DE.A*30.B01561
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## Accessories

Accessories

Device marking

## Surge protection plug - PT 2X1VA-120AC-ST - 2839185

### Accessories

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

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### 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

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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

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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

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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



## Surge protection plug - PT 2X1VA-120AC-ST - 2839185

### Accessories

#### 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

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#### 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

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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

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#### 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

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#### Additional products

## Surge protection plug - PT 2X1VA-120AC-ST - 2839185

### Accessories

#### 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

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#### 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

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