

## Surge protection device - PT 2-TELE - 2882828

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Surge protective device, consisting of plug and base element, for protecting a double wire from analog and digital telecommunications interfaces (VDSL up to 50 Mbps, on short paths (< 300 m) up to 100 Mbps).

### Product Description


Surge protection plug for DIN rail mounting, 2-section pluggable, normal mode voltage coarse and fine protection for 2-conductor analog telecommunication interface as well as common mode voltage coarse protection to ground.

### Your advantages

- ✓ For ISDN Uk0 and DSL applications
- ✓ For analog telecommunications
- ✓ Two-piece, plug-in
- ✓ Broadband protection for telecommunications lines
- ✓ Worldwide use
- ✓ High discharge capacity
- ✓ Plugs can be checked with CHECKMASTER



### Key Commercial Data

Packing unit	10 pc
GTIN	 4 046356 115148
GTIN	4046356115148

### Technical data

#### Dimensions

Height	90 mm
Width	17.7 mm
Depth	65.5 mm
Horizontal pitch	1 Div.
Complete module height	90 mm
Complete module width	17.7 mm

# Surge protection device - PT 2-TELE - 2882828

## Technical data

### Dimensions

Complete module depth	65.5 mm
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### Ambient conditions

Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
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	DIN rail: 35 mm
Type	DIN rail module, two-section, divisible
Number of positions	2
Direction of action	Line-Line & Line-Earth Ground

### Protective circuit

IEC test classification	B2
	C1
	C2
	C3
	D1
VDE requirement class	B2
	C1
	C2
	C3
	D1
Nominal voltage $U_N$	185 V DC
	130 V AC
Maximum continuous voltage $U_C$	185 V DC
	130 V AC
Rated current	450 mA AC (45 °C)
	130 mA DC (45 °C)
Operating effective current $I_C$ at $U_C$	$\leq 10 \mu A$
Residual current $I_{PE}$	$\leq 10 \mu A$
Nominal discharge current $I_n$ (8/20) $\mu s$ (line-line)	10 kA
Nominal discharge current $I_n$ (8/20) $\mu s$ (line-earth)	10 kA
Pulse discharge current $I_{imp}$ (10/350) $\mu s$ (line-line)	1 kA
Pulse discharge current $I_{imp}$ (10/350) $\mu s$ (line-earth)	1 kA
Total discharge current $I_{total}$ (8/20) $\mu s$	18 kA
Max. discharge current $I_{max}$ (8/20) $\mu s$ maximum (line-earth)	18 kA
Nominal pulse current $I_{an}$ (10/700) $\mu s$ (line-line)	100 A

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## Technical data

### Protective circuit

Nominal pulse current $I_{an}$ (10/700) $\mu$ s (line-earth)	100 A
Output voltage limitation at 1 kV/ $\mu$ s (line-line) spike	$\leq$ 300 V
Output voltage limitation at 1 kV/ $\mu$ s (line-earth) spike	$\leq$ 300 V
Output voltage limitation at 1 kV/ $\mu$ s (line-line) static	$\leq$ 300 V
Output voltage limitation at 1 kV/ $\mu$ s (line-earth) static	$\leq$ 300 V
Residual voltage at $I_n$ (line-line)	$\leq$ 160 V (C2 - 10 kV / 5 kA)
Residual voltage at $I_n$ (line-earth)	$\leq$ 200 V (C2 - 10 kV / 5 kA)
Voltage protection level $U_p$ (line-line)	$\leq$ 250 V (B2 - 1 kV / 25 A)
	$\leq$ 300 V (B2 - 4 kV / 100 A)
	$\leq$ 270 V (C1 - 1 kV/500 A)
	$\leq$ 300 V (C2 - 2 kV/1 kA)
	$\leq$ 320 V (C2 - 4 kV / 2 kA)
	$\leq$ 330 V (C2 - 10 kV / 5 kA)
Voltage protection level $U_p$ (line-earth)	$\leq$ 250 V (B2 - 1 kV / 25 A)
	$\leq$ 300 V (B2 - 4 kV / 100 A)
	$\leq$ 270 V (C1 - 1 kV/500 A)
	$\leq$ 300 V (C2 - 2 kV/1 kA)
	$\leq$ 320 V (C2 - 4 kV / 2 kA)
	$\leq$ 330 V (C2 - 10 kV / 5 kA)
Response time $t_A$ (line-line)	$\leq$ 500 ns
Response time $t_A$ (line-earth)	$\leq$ 500 ns
Input attenuation aE, sym.	typ. 0.4 dB ( $\leq$ 5 MHz / 100 $\Omega$ )
Cut-off frequency $f_g$ (3 dB), sym. in 100 Ohm system	typ. 20 MHz
Capacity (line-line)	typ. 30 pF (f=1 MHz / $V_R=0$ V)
Capacity (line-earth)	typ. 30 pF (f=1 MHz / $V_R=0$ V)
Resistance per path	2.2 $\Omega$ $\pm$ 10 %
Surge protection fault message	none
Impulse durability (line-line)	B2 - 4 kV / 100 A
	C1 - 1 kV / 500 A
	C2 - 10 kV / 5 kA
	C3 - 25 A
	D1 - 1 kA
Impulse durability (line-earth)	B2 - 4 kV / 100 A
	C1 - 1 kV / 500 A
	C2 - 10 kV / 5 kA
	C3 - 25 A
	D1 - 1 kA

### Connection data

Connection method	Screw connection
Connection method IN	Screw terminal blocks

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## Technical data

### Connection data

Connection method OUT	Screw terminal blocks
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

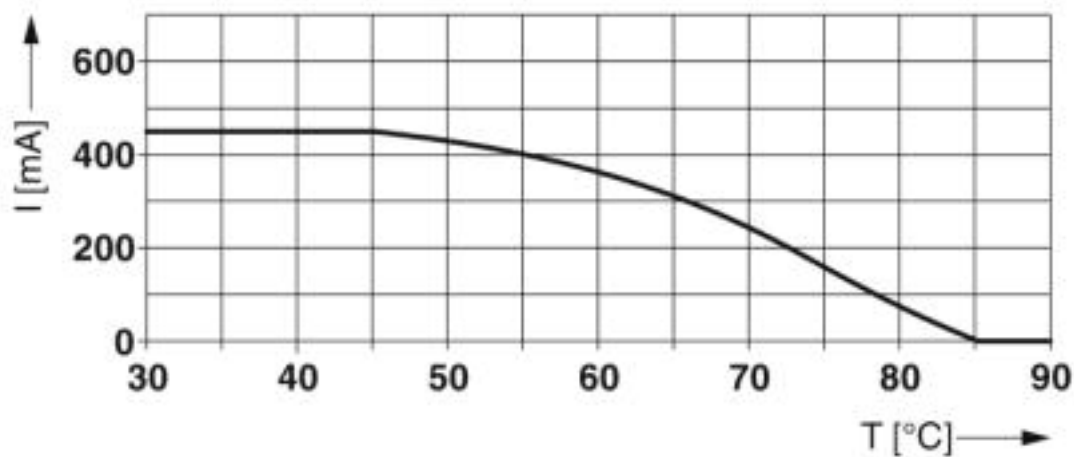
Standards/specifications	IEC 61643-21 2000
	EN 61643-21 2002

### 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"

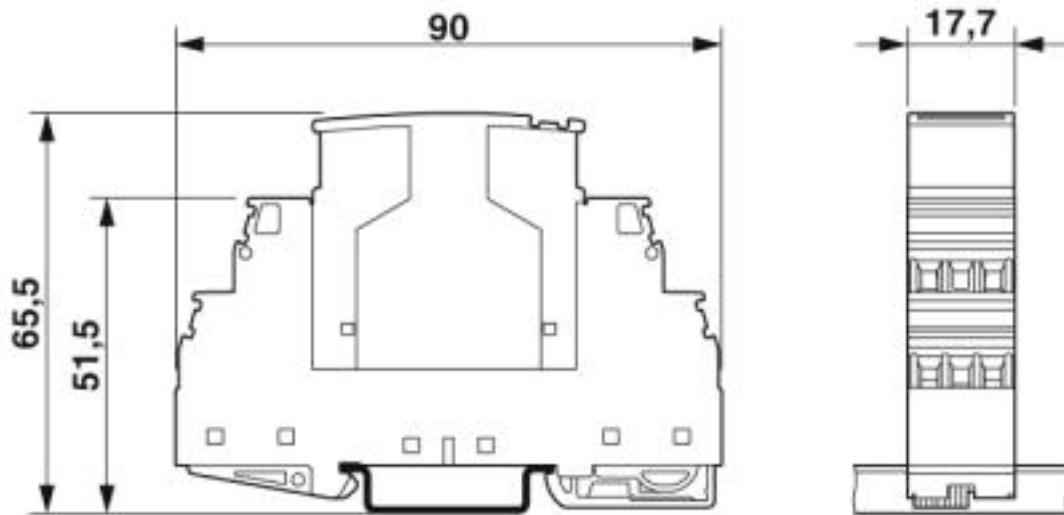
## Drawings

Diagram

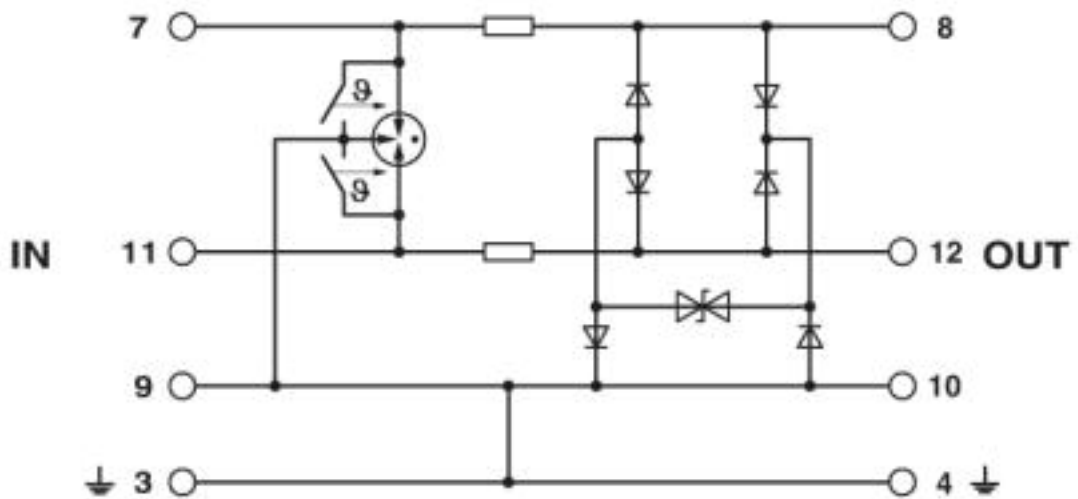


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Dimensional drawing

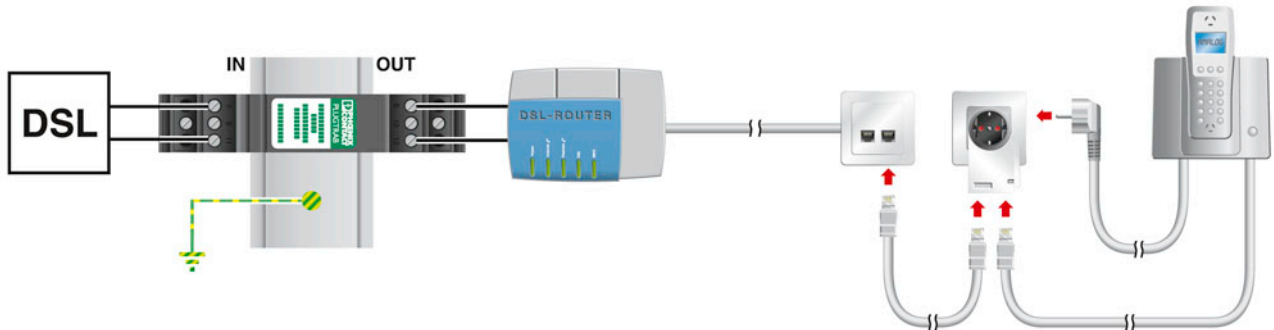


Circuit diagram



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Application drawing



## 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

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## Classifications

### ETIM

ETIM 7.0	EC000943
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### 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

UL Listed / cUL Listed / EAC / EAC / cULus Listed

#### 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 477688
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cUL 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 477688
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EAC		EAC-Zulassung
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EAC		RU C- DE.A*30.B01561
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## Approvals

cULus Listed



## Accessories

### Accessories

#### Labeled terminal marker

Zack marker strip - ZB 5,LGS:FORTL.ZAHLEN - 1050017



Zack marker strip, Strip, white, labeled, printed horizontally: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 491 ... 500, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 5.15 x 10.5 mm, Number of individual labels: 10

#### Terminal marking

Zack marker strip - ZB 5,8:UNBEDRUCKT - 2715209



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: 5.8 mm, lettering field size: 5.75 x 10.5 mm, Number of individual labels: 10

## 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

## Spare parts

## Surge protection device - PT 2-TELE - 2882828

### Accessories

Surge protection plug - PT 2-TELE-ST - 2838733



Surge protection plug for base element, for protecting a double conductor of analog telecommunication interfaces.

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Surge protection base element - PT 1X2-BE - 2856113



Base element for protective plug PT with protective circuit for a 2-core floating signal circuit. Mounting on NS 35/7.5 und NS 35/15, housing width: 17.5 mm.

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