

## Surge protection device - PT-IQ-2X1-48DC-PT - 2801249


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Surge protection, consisting of protective plug and base element, with integrated multi-stage status indicator on the module for two signal wires with common reference potential.



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 766326
GTIN	4046356766326

### Technical data

#### Dimensions

Height	109.3 mm
Width	17.7 mm
Depth	77.5 mm (incl. DIN rail 7.5 mm)
Horizontal pitch	1 Div.

#### Ambient conditions

Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 4000 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	DIN rail: 35 mm
Type	DIN rail module, two-section, divisible

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## Technical data

### General

Direction of action	Line-Line & Line-Signal Ground/Shield & optional Signal Ground/Shield-Earth Ground
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### Additional descriptions

Note	Remote signaling as well as the power supply of the DIN rail connector are established by snapping the module into place on the DIN rail connector.
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### Protective circuit

IEC test classification	C1
	C2
	C3
	D1
Nominal voltage $U_N$	48 V DC
Maximum continuous voltage $U_C$	53 V DC
	37 V AC
Rated current	300 mA
Operating effective current $I_C$ at $U_C$	$\leq 6 \mu\text{A}$ (per path)
Residual current $I_{PE}$	$\leq 6 \mu\text{A}$ (per path)
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (line-earth)	10 kA
Pulse discharge current $I_{imp}$ (10/350) $\mu\text{s}$ (line-earth)	2.5 kA
Total discharge current $I_{total}$ (8/20) $\mu\text{s}$	20 kA
Voltage protection level $U_p$ (line-earth)	$\leq 105 \text{ V}$ (C1 - 1 kV/500 A)
	$\leq 160 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 90 \text{ V}$ (C3 - 25 A)
Response time $t_A$ (line-earth)	$\leq 1 \text{ ns}$
Input attenuation $a_E$ , asym.	typ. 0.3 dB ( $\leq 530 \text{ kHz} / 150 \Omega$ )
Cut-off frequency $f_g$ (3 dB), asym. (PE) in 150 Ohm system	typ. 1.9 MHz
Capacity (line-signalground)	typ. 1.5 nF
Resistance in series	1.2 $\Omega \pm 5 \%$
Surge protection fault message	Optical, multi-stage
Max. required back-up fuse	315 mA (FF)
Impulse durability (line-earth)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C2 - 10 kA
	C3 - 25 A
	D1 - 2.5 kA
Pulse reset time (line-earth)	$\leq 1500 \text{ ms}$

### Connection data

Connection method	Push-in connection
Stripping length	10 mm
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>

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## Technical data

### Connection data

Conductor cross section solid	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross section AWG	24 ... 12

### Connection, equipotential bonding

Connection method	DIN rail NS35
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### Remote indication contact

Switching function	via DIN rail connector
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### Standards and Regulations

Standards/specifications	IEC 61643-21 2000 + A1:2008 + A2:2012
	EN 61643-21 2001 + A1:2009 + A2:2013
	EN 61000-6-3 2007 + A1:2011
	EN 61000-6-2 2005

### Environmental Product Compliance

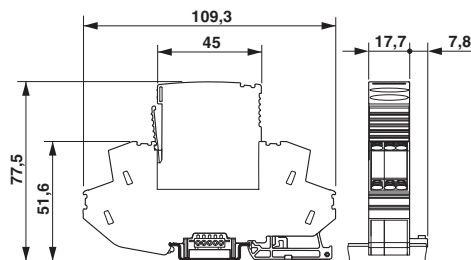
REACH SVHC	Lead 7439-92-1
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## Drawings

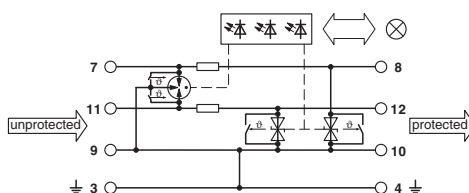
### Pictogram



### Dimensional drawing



### Circuit diagram



## Approvals

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## Approvals

Approvals






UL Listed / EAC / CSA / CSAus / cCSAus

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Ex Approvals

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## 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
EAC			RU C- DE.A*30.B01561
CSA		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	2761632
CSAus		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	2761632
cCSAus		<a href="http://www.csagroup.org/us/en/services/testing-and-certification/certified-product-listing">http://www.csagroup.org/us/en/services/testing-and-certification/certified-product-listing</a>	

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