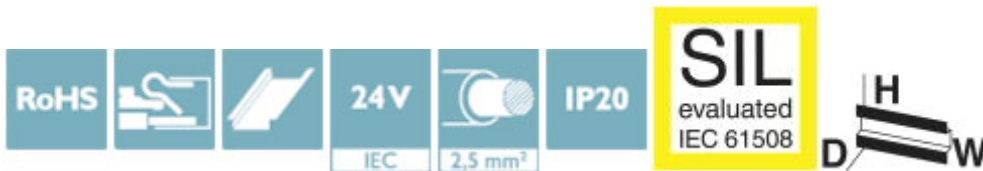


# Surge protection device - PT-IQ-2X1+F-24DC-PT - 2801248


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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. Indirect grounding via gas-filled surge arrester.



## Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 766319
GTIN	4046356766319

## 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 $U_N$	24 V DC
Maximum continuous voltage $U_C$	30 V DC
	21 V AC
Rated current	1000 mA (40 °C)
Operating effective current $I_C$ at $U_C$	$\leq 1$ mA (per path)
Residual current $I_{PE}$	$\leq 1$ $\mu$ A
Nominal discharge current $I_n$ (8/20) $\mu$ s (line-earth)	10 kA
Nominal discharge current $I_n$ (8/20) $\mu$ s (core-signal ground)	10 kA
Pulse discharge current $I_{imp}$ (10/350) $\mu$ s (line-earth)	2.5 kA
Total discharge current $I_{total}$ (8/20) $\mu$ s	20 kA
Voltage protection level $U_p$ (line-earth)	$\leq 800$ V (C1 - 1 kV/500 A)
	$\leq 950$ V (C2 - 10 kV / 5 kA)
	$\leq 780$ V (C3 - 25 A)
	$\leq 950$ V (C3 - 50 A)
Voltage protection level $U_p$ (line-signalground)	$\leq 75$ V (C1 - 1 kV/500 A)
	$\leq 135$ V (C2 - 10 kV / 5 kA)
	$\leq 55$ V (C3 - 25 A)
	$\leq 60$ V (C3 - 50 A)
Voltage protection level $U_p$ static (line-earth)	$\leq 90$ V (C3 - 25 A)
	$\leq 90$ V (C3 - 50 A)
Response time $t_A$ (line-signalground)	$\leq 1$ ns
Response time $t_A$ (line-earth)	$\leq 100$ 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. 1.1 MHz
Capacity (line-signalground)	typ. 2 nF
Resistance in series	1.2 $\Omega$ $\pm 5$ %
Surge protection fault message	Optical, multi-stage
Max. required back-up fuse	1 A (FF)
Impulse durability (line-earth)	C1 - 1 kV/500 A

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## Technical data

### Protective circuit

	C2 - 10 kV/5 kA
	C2 - 10 kA
	C3 - 50 A
	D1 - 2.5 kA
Surge current carrying capability (wire-signal ground)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C2 - 10 kA
	C3 - 50 A
	D1 - 2,5 kA
Pulse reset time (line-earth)	≤ 30 ms
Pulse reset time (line-signalground)	≤ 350 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>
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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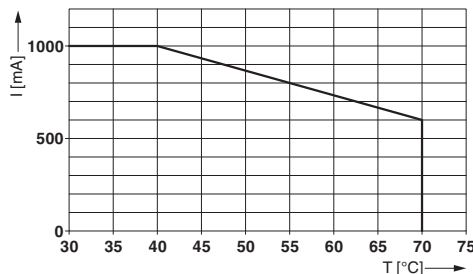
## Drawings

# Surge protection device - PT-IQ-2X1+F-24DC-PT - 2801248

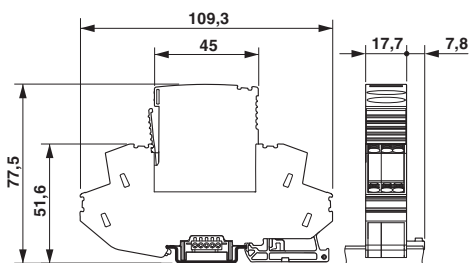
Pictogram



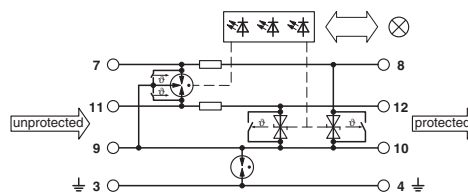
Diagram



Dimensional drawing



Circuit diagram



## Approvals

### Approvals

Approvals

UL Listed / EAC / CSA / CSAus / cCSAus

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			RU C- DE.A*30.B01561
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CSA		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	2761632
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### Approvals

CSAus		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	2761632
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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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