

# Surge protection device - PT-IQ-4X1+F-48DC-PT - 2801274

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Surge protection, consisting of protective plug and base element, with integrated multi-stage status indicator on the module for four signal wires with common reference potential. Indirect grounding via gas-filled surge arrester.

The figure shows the PT-IQ-2x2-24DC-PT version



## Key Commercial Data

Packing unit	1 pc
GTIN	4 046356 766562
Weight per Piece (excluding packing)	150.1 g
Custom tariff number	85363010
Country of origin	Germany
Note	Made to Order (non-returnable)

## Technical data

### Dimensions

Height	109.3 mm
Width	17.7 mm
Depth	77.5 mm
Horizontal pitch	1 Div.

### Ambient conditions

Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Degree of protection	IP20

### General

Housing material	PA 6.6
Inflammability class according to UL 94	V-0
Color	jet black RAL 9005
Mounting type	DIN rail: 35 mm

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## Technical data

### General

Type	DIN rail module, two-section, divisible
Direction of action	Line-Line & Line-Signal Ground/Shield & optional Signal Ground/Shield-Earth Ground

### 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
Nominal current $I_N$	300 mA
Operating effective current $I_C$ at $U_C$	$\leq 6 \mu\text{A}$ (per path)
Residual current $I_{PE}$	$\leq 1 \mu\text{A}$
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (Core-Earth)	10 kA
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (Core-GND)	10 kA
Pulse discharge current $I_{imp}$ (10/350) $\mu\text{s}$ (core-ground)	2.5 kA
Pulse discharge current $I_{imp}$ (10/350) $\mu\text{s}$ (core-GND)	2.5 kA
Impulse discharge current (10/350) $\mu\text{s}$ , peak value $I_{imp}$	2.5 kA
Voltage protection level $U_p$ (core-ground)	$\leq 750 \text{ V}$ (C1 - 1 kV/500 A)
	$\leq 950 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 850 \text{ V}$ (C3 - 25 A)
Voltage protection level $U_p$ (core-GND)	$\leq 105 \text{ V}$ (C1 - 1 kV/500 A)
	$\leq 160 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 90 \text{ V}$ (C3 - 25 A)
Voltage protection level $U_p$ static (core-ground)	$\leq 200 \text{ V}$ (C2 - 10 kV / 5 kA)
Response time $t_A$ (Core-Earth)	$\leq 1 \text{ ns}$
	$\leq 100 \text{ ns}$
Input attenuation $a_E$ , asym.	typ. 0.3 dB ( $\leq 530 \text{ kHz}/150 \Omega$ )
Cut-off frequency $f_g$ (3 dB), asym. (GND) in 150 Ohm system	typ. 1.9 MHz
Capacity (Core-GND)	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 (conductor-ground)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C2 - 10 kA
	C3 - 25 A
	D1 - 2,5 kA
Impulse durability (conductor-GND)	C1 - 1 kV/500 A

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## Technical data

### Protective circuit

	C2 - 10 kV/5 kA
	C2 - 10 kA
	C3 - 25 A
	D1 - 2.5 kA
Pulse reset time (conductor-ground)	≤ 250 ms
Pulse reset time (conductor-GND)	≤ 1500 ms

### Connection data

Connection method	Push-in connection
Connection type IN	Push-in connection
Connection type OUT	Push-in connection
Stripping length	10 mm
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Conductor cross section solid min.	0.5 mm <sup>2</sup>
Conductor cross section solid max.	4 mm <sup>2</sup>
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12

### Connection, equipotential bonding

Connection method	NS 35 DIN rail or connection terminal block
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## Classifications

### eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801
eCl@ss 5.0	27130801
eCl@ss 5.1	27130801
eCl@ss 6.0	27130807
eCl@ss 7.0	27130807
eCl@ss 8.0	27130807

### ETIM

ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 5.0	EC000943

### UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610

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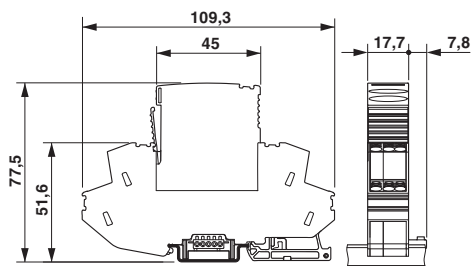
## Classifications

### UNSPSC

UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

## Drawings

Dimensional drawing



Circuit diagram

