

## Surge protection device - PT-IQ-2X2-5DC-PT - 2801259

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Surge protection, consisting of protective plug and base element, with integrated multi-stage status indicator on the module for two 2-wire floating signal circuits.

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



### Key commercial data

Packing unit	1 pc
Custom tariff number	85363010
Country of origin	Germany

### 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
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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#### Protective circuit

IEC test classification	C1
	C2
	C3
	D1
Nominal voltage $U_N$	5 V DC
Maximum continuous voltage $U_C$	6 V DC
	4 V AC
Nominal current $I_N$	700 mA (50 °C)
Operating effective current $I_C$ at $U_C$	$\leq 2$ mA (in the signal circuit)
Residual current $I_{PE}$	$\leq 2$ $\mu$ A (per signal circuit)
Nominal discharge current $I_n$ (8/20) $\mu$ s (Core-Core)	5 kA
	10 kA
Nominal discharge current $I_n$ (8/20) $\mu$ s (Core-Earth)	5 kA
	10 kA
Pulse discharge current $I_{imp}$ (10/350) $\mu$ s (core-ground)	2.5 kA
Impulse discharge current (10/350) $\mu$ s, peak value $I_{imp}$	2.5 kA
Voltage protection level $U_p$ (core-core)	$\leq 85$ V (C1 - 1 kV/500 A)
	$\leq 110$ V (C2 - 10 kV / 5 kA)
	$\leq 25$ V (C3 - 25 A)
	$\leq 25$ V (C3 - 50 A)
Voltage protection level $U_p$ (core-ground)	$\leq 600$ V (C1 - 1 kV/500 A)
	$\leq 750$ V (C2 - 10 kV / 5 kA)
	$\leq 700$ V (C3 - 25 A)
	$\leq 800$ V (C3 - 50 A)
Voltage protection level $U_p$ static (core-core)	$\leq 26$ V (C1 - 1 kV/500 A)
	$\leq 70$ V (C2 - 10 kV / 5 kA)
Response time $t_A$ (Core-Core)	$\leq 1$ ns
Response time $t_A$ (Core-Earth)	$\leq 100$ ns
Input attenuation $a_E$ , sym.	typ. 0.3 dB ( $\leq 40$ kHz/150 $\Omega$ )
Cut-off frequency $f_g$ (3 dB), sym. in 150 Ohm system	typ. 300 kHz
Capacity (Core-Core)	typ. 7.5 nF
Resistance in series	1.2 $\Omega$ $\pm 5$ %
Surge protection fault message	Optical, multi-stage

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#### Protective circuit

Max. required back-up fuse	800 mA (FF)
Impulse durability (conductor-conductor)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C2 - 5 kA
Impulse durability (conductor-ground)	C3 - 50 A
	C1 (1 kV / 500 A)
	C2 - 10 kV/5 kA
Impulse durability (conductor-ground)	C2 - 5 kA
	C3 - 100 A
	D1 - 2,5 kA
Pulse reset time (conductor-conductor)	≤ 10 ms
Pulse reset time (conductor-ground)	≤ 10 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.	0.2 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

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## Classifications

### ETIM

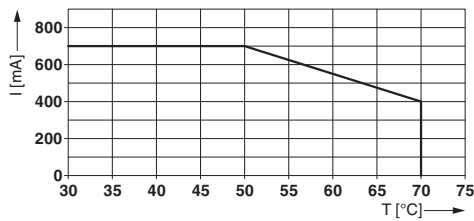
ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 5.0	EC000943

### UNSPSC

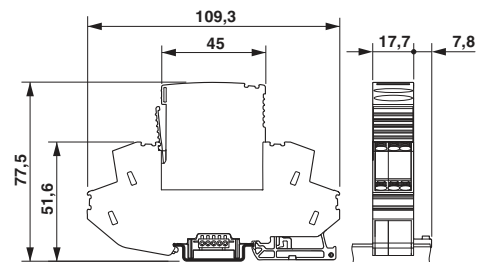
UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

## Drawings

Diagram



Dimensional drawing



Circuit diagram

