

## Surge protection device - PT-IQ-1X2-EX-24DC-UT - 2801512

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



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

### Product Features



### Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	140.0 GRM
Custom tariff number	85363010
Country of origin	Germany

### Technical data

#### Dimensions

Height	91.1 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
------------------	--------

# Surge protection device - PT-IQ-1X2-EX-24DC-UT - 2801512

## Technical data

### General

Inflammability class according to UL 94	V0
Color	black
Mounting type	DIN rail mounting
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 $U_N$	24 V DC
Maximum continuous voltage $U_C$	30 V DC
	21 V AC
Nominal current $I_N$	350 mA
Operating effective current $I_C$ at $U_C$	$\leq 5 \mu\text{A}$ (per system)
Residual current $I_{PE}$	$\leq 100 \text{ nA}$ (per system)
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (Core-Core)	10 kA
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (Core-Earth)	10 kA
Total surge current (8/20) $\mu\text{s}$	20 kA
Impulse discharge current (10/350) $\mu\text{s}$ , peak value $I_{imp}$	2 kA
Voltage protection level $U_p$ (core-core)	$\leq 60 \text{ V}$ (C1 - 1 kV/500 A)
	$\leq 110 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 140 \text{ V}$ (C2 - 10 kA)
	$\leq 50 \text{ V}$ (C3 - 25 A)
	$\leq 55 \text{ V}$ (C3 - 100 A)
Voltage protection level $U_p$ (core-ground)	$\leq 1.3 \text{ kV}$ (C2 - 10 kV / 5 kA)
	$\leq 1.5 \text{ kV}$ (C2 - 10 kA)
	$\leq 1.3 \text{ kV}$ (C3 - 100 A)
Response time $t_A$ (Core-Core)	$\leq 1 \text{ ns}$
Response time $t_A$ (Core-Earth)	$\leq 100 \text{ ns}$
Input attenuation $a_E$ , sym.	typ. 0.3 dB ( $\leq 300 \text{ kHz} / 150 \Omega$ )
Cut-off frequency $f_g$ (3 dB), sym. in 150 Ohm system	typ. 1.1 MHz
Capacity (Core-Earth)	typ. 2 nF
Resistance in series	1.2 $\Omega \pm 5 \%$
Surge protection fault message	Optical, multi-stage
Max. required back-up fuse	350 mA (F)

## Surge protection device - PT-IQ-1X2-EX-24DC-UT - 2801512

### Technical data

#### Protective circuit

Impulse durability (conductor-conductor)	C1 - 1 kV/500 A
	C2 - 10 kA
	C3 - 100 A
Impulse durability (conductor-ground)	C2 - 10 kA
	D1 - 2 kA
Pulse reset time (conductor-conductor)	≤ 30 ms
Pulse reset time (conductor-ground)	≤ 30 ms

#### Connection data

Connection method	Screw connection
Connection type IN	Screw terminal blocks
Connection type OUT	Screw terminal blocks
Screw thread	M3
Tightening torque	0.5 Nm
Stripping length	8 mm
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
-------------------	---

#### Remote indicator contact

Switching function	Via TBUS
--------------------	----------

#### General

Maximum inner capacitance $C_i$	negligible
Maximum inner inductance $L_i$	negligible
Max. input current $I_i$	350 mA
Max. input voltage $U_i$	30 V DC
Maximum input power $P_i$	1.2 W
Insulation voltage to ground	> 500 V AC
Standards/specifications	EN 60079-0 2012
	EN 60079-11 2012
	EN 60079-15 2010
	IEC 60079-0 2012
	IEC 60079-11 2012
	IEC 60079-15 2010

# Surge protection device - PT-IQ-1X2-EX-24DC-UT - 2801512

## Technical data

### General

Ambient temperature (operation)	-40 °C ... 50 °C (T6)
	-40 °C ... 70 °C (T4)

## 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

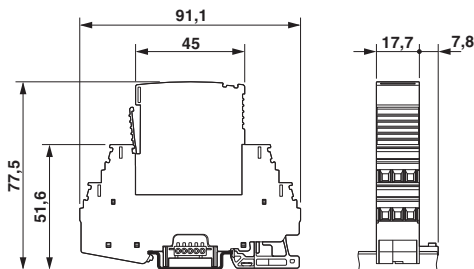
ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 5.0	EC000943

### UNSPSC

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

## Drawings

Dimensional drawing



Circuit diagram

