

## Surge protection device - PT-IQ-2X2+F-5DC-PT - 2801260

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 two 2-wire floating signal circuits. Indirect grounding via gas-filled surge arrester.

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



### Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	160.0 GRM
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

# Surge protection device - PT-IQ-2X2+F-5DC-PT - 2801260

## 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 $U_N$	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 $I_{PE}$	$\leq 1$ $\mu$ A
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
Nominal discharge current $I_n$ (8/20) $\mu$ s (Core-GND)	5 kA
	10 kA
Pulse discharge current $I_{imp}$ (10/350) $\mu$ s (core-ground)	2.5 kA
Pulse discharge current $I_{imp}$ (10/350) $\mu$ s (core-GND)	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)	$\leq 900$ V (C1 - 1 kV/500 A)
	$\leq 1300$ V (C2 - 10 kV / 5 kA)
	$\leq 1000$ V (C3 - 25 A)
	$\leq 1300$ V (C3 - 100 A)
Voltage protection level $U_p$ (core-GND)	$\leq 600$ V (C1 - 1 kV/500 A)
	$\leq 750$ V (C2 - 10 kV / 5 kA)
	$\leq 700$ V (C3 - 25 A)
	$\leq 800$ V (C3 - 100 A)
Voltage protection level $U_p$ static (core-core)	$\leq 26$ V (C1 - 1 kV/500 A)

## Surge protection device - PT-IQ-2X2+F-5DC-PT - 2801260

### Technical data

#### Protective circuit

	$\leq 70$ V (C2 - 10 kV / 5 kA)
Response time tA (Core-Core)	$\leq 1$ ns
Response time tA (Core-Earth)	$\leq 100$ ns
	$\leq 100$ ns
Input attenuation aE, sym.	typ. 0.3 dB ( $\leq 40$ kHz/150 $\Omega$ )
Cut-off frequency fg (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
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
	C3 - 50 A
Impulse durability (conductor-ground)	C1 (1 kV / 500 A)
	C2 - 10 kV/5 kA
	C2 - 5 kA
	C3 - 100 A
	D1 - 2,5 kA
Impulse durability (conductor-GND)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C2 - 5 kA
	C3 - 100 A
	D1 - 2.5 kA
Pulse reset time (conductor-conductor)	$\leq 10$ ms
Pulse reset time (conductor-ground)	$\leq 10$ ms
Pulse reset time (conductor-GND)	$\leq 10$ 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

# Surge protection device - PT-IQ-2X2+F-5DC-PT - 2801260

## Technical data

### Connection data

Conductor cross section AWG max.	12
----------------------------------	----

### Connection, equipotential bonding

Connection method	NS 35 DIN rail or connection terminal block
-------------------	---

## 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

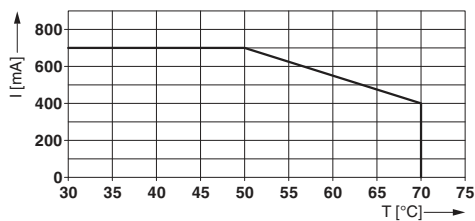
ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 5.0	EC000943

### UNSPSC

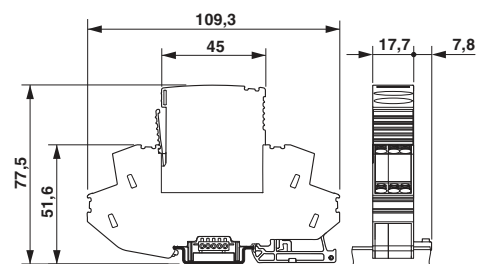
UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

## Drawings

Diagram



Dimensional drawing



# Surge protection device - PT-IQ-2X2+F-5DC-PT - 2801260

Circuit diagram

