

## Surge protection device - S-PT-1X2-24DC-3/4" - 2882598

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 in the IP67 screw-on module for measuring sensors, direct mounting with 3/4" NPT outer thread, cable gland for the signal cable, two-stage protective circuit. HART-compatible.

### Why buy this product

- ✓ Arresters in hexagonal pipe with various outer threads



### Key commercial data

Packing unit	1 pc
GTIN	 4 046356 098182
Weight per Piece (excluding packing)	400.91 g
Custom tariff number	85363010
Country of origin	Germany
Note	Made to Order (non-returnable)

### Technical data

#### Dimensions

Height	34 mm
Width	34 mm
Depth	148 mm

#### Ambient conditions

Ambient temperature (operation)	-40 °C ... 85 °C
Degree of protection	IP67

#### General

Housing material	Zinc die-cast, surface bronzed and nickel-plated
Color	silver
Standards for air and creepage distances	IEC 60664-1

# Surge protection device - S-PT-1X2-24DC-3/4" - 2882598

## Technical data

### General

	VDE 0110-1
Mounting type	ct screw connection
Type	Screw-in module
Number of positions	3
Direction of action	Line-Line & Line-Earth Ground

### Protective circuit

IEC test classification	C1
	C2
	C3
	D1
Nominal voltage $U_N$	24 V DC
Maximum continuous operating voltage $U_C$	40 V DC
	28 V AC
Maximum continuous voltage $U_C$ (wire-wire)	40 V DC
	28 V AC
Nominal current $I_N$	450 mA (55°C)
Operating effective current $I_C$ at $U_C$	$\leq 10 \mu A$
Residual current $I_{PE}$	$\leq 2 \mu A$
Nominal discharge current $I_n$ (8/20) $\mu s$ (Core-Core)	10 kA
Nominal discharge current $I_n$ (8/20) $\mu s$ (Core-Earth)	10 kA
Nominal discharge current $I_n$ (8/20) $\mu s$ (Shield-Earth)	10 kA (optional)
Total surge current (8/20) $\mu s$	20 kA
Total surge current (10/350) $\mu s$	2 kA
Max. discharge current $I_{max}$ (8/20) $\mu s$ maximum (Core-Core)	10 kA
Max. discharge current $I_{max}$ (8/20) $\mu s$ maximum (Core-Earth)	10 kA
Max. discharge current $I_{max}$ (8/20) $\mu s$ maximum (Shield-Earth)	10 kA
Nominal pulse current $I_{an}$ (10/1000) $\mu s$ (Core-Core)	23 A
Nominal pulse current $I_{an}$ (10/1000) $\mu s$ (Core-Earth)	100 A
Nominal pulse current $I_{an}$ (10/1000) $\mu s$ (Shield-Earth)	100 A
Impulse discharge current (10/350) $\mu s$ , peak value $I_{imp}$	1 kA
Output voltage limitation at 1 kV/ $\mu s$ (Core-Core) spike	$\leq 55 V$
Output voltage limitation at 1 kV/ $\mu s$ (Core-Earth) spike	$\leq 450 V$ (Direct grounding)
Output voltage limitation at 1 kV/ $\mu s$ (Shield-Earth) spike	$\leq 600 V$ (optional)
Output voltage limitation at 1 kV/ $\mu s$ (Core-Core) static	$\leq 55 V$
Output voltage limitation at 1 kV/ $\mu s$ (Core-Earth) static	$\leq 450 V$ (Direct grounding)
Residual voltage at $I_n$ , (conductor-conductor)	$\leq 55 V$
Residual voltage with $I_{an}$ (10/1000) $\mu s$ (conductor-conductor)	$\leq 65 V$
Voltage protection level $U_p$ (core-core)	$\leq 80 V$ (C2 -5 kA)
Voltage protection level $U_p$ (core-ground)	$\leq 450 V$ (C2 -5 kA, direct grounding)

# Surge protection device - S-PT-1X2-24DC-3/4" - 2882598

## Technical data

### Protective circuit

Voltage protection level $U_p$ (shield-ground)	$\leq 600$ V (C2 -5 kA optional)
Response time $t_A$ (Core-Core)	$\leq 1$ ns
Response time $t_A$ (Core-Earth)	$\leq 100$ ns
Response time $t_A$ (Shield-Earth)	$\leq 100$ ns
Input attenuation aE, sym.	typ. 0.5 dB ( $\leq 1.5$ MHz / 50 $\Omega$ )
	typ. 0.2 dB ( $\leq 300$ kHz / 150 $\Omega$ )
Cut-off frequency $f_g$ (3 dB), sym. in 50 Ohm system	typ. 6 MHz
Cut-off frequency $f_g$ (3 dB), sym. in 150 Ohm system	typ. 2 MHz
Resistance in series	2.2 $\Omega$
Surge protection fault message	None
Max. required back-up fuse	500 mA (e.g. T in acc. with IEC 127-2/III)
Impulse durability (conductor-conductor)	C2 - 10 kV/5 kA
Impulse durability (conductor-ground)	C2 - 10 kV/5 kA
Impulse durability (shield-ground)	C2 (10 kV/5 kA)

### Connection data

Connection name	Input/output
Connection method	Screw connection
Connection type IN	Screw terminal blocks
Connection type OUT	Connection line
Connection method	Screw connection
Screw thread	M3
Tightening torque	0.6 Nm
Stripping length	6 mm
Conductor cross section stranded min.	0.14 mm <sup>2</sup>
Conductor cross section stranded max.	1.5 mm <sup>2</sup>
Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	1.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	26
Conductor cross section AWG/kcmil max.	16

### Standards and Regulations

Standards/regulations	IEC 61643-21
-----------------------	--------------

## 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

## Surge protection device - S-PT-1X2-24DC-3/4" - 2882598

### Classifications

#### eCl@ss

eCl@ss 7.0	27130807
eCl@ss 8.0	27130807

#### ETIM

ETIM 2.0	EC000943
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

### Approvals

#### Approvals

---

Approvals

EAC

---

Ex Approvals

---

Approvals submitted

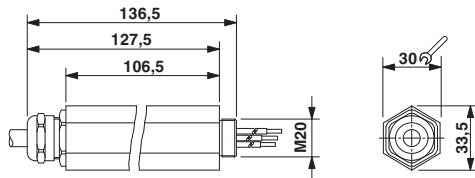
#### Approval details

EAC
-----

### Drawings

## Surge protection device - S-PT-1X2-24DC-3/4" - 2882598

Dimensioned drawing



Circuit diagram

