

## Surge protection device - S-PT-EX-24DC-1/2" - 2800035

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Surge protection for one floating signal circuit in screw-on module with IP67 protection for sensor heads, connection 1/2-inch 14 NPT. Tested in acc. with the protection types in Ex areas Ex d / Ex tD / Ex ia IIC / Ex iaD.

### Product Features

- Arresters in hexagonal pipe with various outer threads



### Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	220.0 g
Custom tariff number	85363010
Country of origin	Germany

### Technical data

#### Dimensions

Height	28 mm
Width	28 mm
Depth	79 mm

#### Ambient conditions

Ambient temperature (operation)	-40 °C ... 80 °C (non-Ex)
Degree of protection	IP67

#### General

Housing material	High-grade steel
Color	silver
Standards for clearances and creepage distances	IEC 60664-1

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### Technical data

#### General

	IEC 60079-11
Mounting type	1/2" NPT
Type	Screw-in module
Number of positions	2
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 voltage $U_C$	36 V DC
	25 V AC
Maximum continuous voltage $U_C$ (wire-wire)	36 V DC
	25 V AC
Residual current $I_{PE}$	$\leq 2 \mu A$
Nominal discharge current $I_n$ (8/20) $\mu s$ (Core-Core)	260 A
Nominal discharge current $I_n$ (8/20) $\mu s$ (Core-Earth)	10 kA
Total surge current (8/20) $\mu s$	20 kA
Total surge current (10/350) $\mu s$	2 kA
Nominal pulse current $I_{an}$ (10/1000) $\mu s$ (Core-Core)	50 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	$\leq 130 V$
Output voltage limitation at 1 kV/ $\mu s$ (Core-Earth) spike	$\leq 1.1 kV$
Output voltage limitation at 1 kV/ $\mu s$ (Core-Core) static	$\leq 60 V$
Voltage protection level $U_p$ (core-core)	$\leq 65 V$ (C3 - 10 A)
Voltage protection level $U_p$ (core-ground)	$\leq 1.1 kV$ (C3 - 100 A)
	$\leq 1.1 kV$ (C1 - 500 A)
	$\leq 1.2 kV$ (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. 0.1 dB (30 MHz / 50 $\Omega$ )
	typ. 0.1 dB (6 MHz / 150 $\Omega$ )
Cut-off frequency $f_g$ (3 dB), sym. in 50 Ohm system	typ. 70 MHz
Cut-off frequency $f_g$ (3 dB), sym. in 150 Ohm system	typ. 70 MHz
Capacity (Core-Core)	typ. 20 pF

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#### Protective circuit

Capacity (Core-Earth)	typ. 5 pF
Surge protection fault message	None
Impulse durability (conductor-conductor)	C3 - 25 A
Impulse durability (conductor-ground)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C3 - 100 A
	D1 - 1kA
Alternating current carrying capacity (conductor-ground)	10 A - 1 s

#### Connection data

Connection method	Individual wires
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#### Standards and Regulations

Standards/regulations	EN 61643-21
	EN 60079-0
	EN 60079-1
	EN 60079-11
	EN 60079-26
	EN 61241-0
	EN 61241-1
	EN 61241-11

### 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
eCl@ss 9.0	27130807

#### ETIM

ETIM 2.0	EC000943
ETIM 3.0	EC000943
ETIM 4.0	EC000943

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#### ETIM

ETIM 5.0	EC000943
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#### UNSPSC

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

### Approvals

#### Approvals

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#### Approvals

#### EAC

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#### Ex Approvals

#### IECEX / ATEX

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#### Approvals submitted

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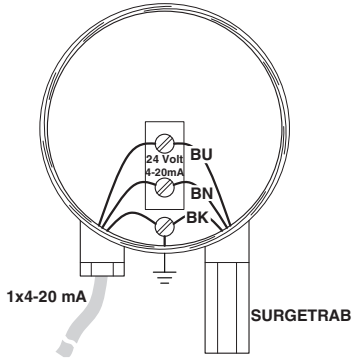
#### Approval details

EAC
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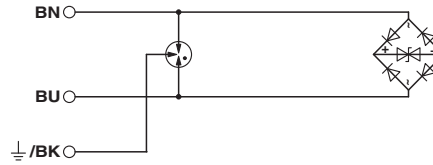
### Drawings

# Surge protection device - S-PT-EX-24DC-1/2" - 2800035

Application drawing



Circuit diagram



Dimensional drawing

