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## Surge protection device - S-PT-1X2-24DC-1/2" - 2882569

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Surge protection in the IP67 screw-on module for measuring sensors, direct mounting with 1/2" 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 STK
GTIN	 4 046356 091657

### 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 clearances and creepage distances	IEC 60664-1
	VDE 0110-1
Mounting type	ct screw connection
Type	Screw-in module
Number of positions	3

# Surge protection device - S-PT-1X2-24DC-1/2" - 2882569

## Technical data

### General

Direction of action	Line-Line & Line-Earth Ground
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### Protective circuit

IEC test classification	C1
	C2
	C3
	D1
Nominal voltage $U_N$	24 V DC
Maximum continuous 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)
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)	$\leq 100 ns$

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## Technical data

### Protective circuit

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 fg (3 dB), sym. in 50 Ohm system	typ. 6 MHz
Cut-off frequency fg (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 flexible min.	0.14 mm <sup>2</sup>
Conductor cross section flexible 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 min.	26
Conductor cross section AWG max.	16

### Standards and Regulations

Standards/regulations	IEC 61643-21
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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
eCl@ss 9.0	27130807

# Surge protection device - S-PT-1X2-24DC-1/2" - 2882569

## Classifications

### 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

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### Approvals

### EAC

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### Ex Approvals

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### Approvals submitted

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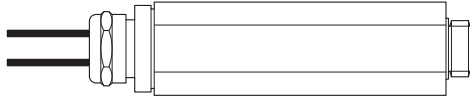
### Approval details

EAC
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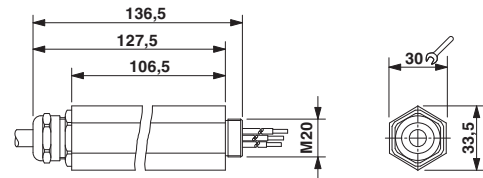
## Drawings

# Surge protection device - S-PT-1X2-24DC-1/2" - 2882569

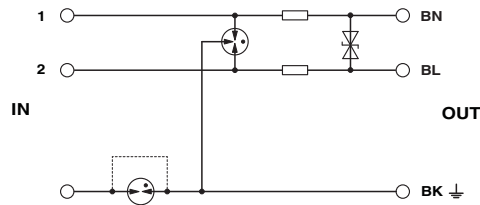
Product drawing



Dimensional drawing



Circuit diagram



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PHOENIX CONTACT GmbH & Co. KG  
Flachsmarktstr. 8  
32825 Blomberg  
Germany  
Tel. +49 5235 300  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.com>



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Product	Code	Reference	Product link
Surge protection in the IP67 screw-on module for measuring sensors, direct mounting with 1/2" NPT outer thread, cable gland for the signal cable, two-stage protective circuit. HART-compatible.	2882569	S-PT-1X2-24DC-1/2"	<a href="#">Buy on EAN</a>