

Surge protection device - S-PT-EX-48DC-1/2" - 2800054

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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.

Why buy this product

- Arresters in hexagonal pipe with various outer threads



Key Commercial Data

| | |
|--------------------------------------|----------|
| Packing unit | 1 STK |
| Weight per Piece (excluding packing) | 0.220 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 | Stainless 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 | 48 V DC |
| Maximum continuous voltage U_C | 53 V DC |
| | 37 V AC |
| Residual current I_{PE} | $\leq 2 \mu A$ |
| Nominal discharge current I_n (8/20) μs (Core-Core) | 170 A |
| Nominal discharge current I_n (8/20) μs (Core-Earth) | 10 kA |
| Pulse discharge current I_{imp} (10/350) μs | 1 kA |
| Total discharge current I_{Total} (8/20) μs | 20 kA |
| Total discharge current I_{Total} (10/350) μs | 2 kA |
| Nominal pulse current I_{an} (10/1000) μs (Core-Core) | 34 A |
| Output voltage limitation at 1 kV/ μs (Core-Core) spike | $\leq 160 V$ |
| Output voltage limitation at 1 kV/ μs (Core-Earth) spike | $\leq 1.1 kV$ |
| Output voltage limitation at 1 kV/ μs (Core-Core) static | $\leq 80 V$ |
| Voltage protection level U_p (core-core) | $\leq 90 V$ (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 Ω) |
| | typ. 0.1 dB (6 MHz / 150 Ω) |
| 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. 40 MHz |
| Capacity (Core-Core) | typ. 20 pF |
| Capacity (Core-Earth) | typ. 5 pF |
| Surge protection fault message | None |

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Protective circuit

| | |
|--|-----------------|
| Impulse durability (conductor-conductor) | C3 - 10 A |
| Impulse durability (conductor-ground) | C1 - 1 kV/500 A |
| | C2 - 10 kV/5 kA |
| | C3 - 100 A |
| | D1 - 1 kA |
| Alternating current carrying capacity (conductor-ground) | 10 A - 1 s |

Connection data

| | |
|-------------------|------------------|
| Connection method | Individual wires |
|-------------------|------------------|

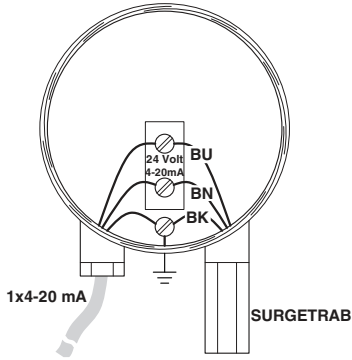
Standards and Regulations

| | |
|--------------------------|---------------------|
| 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 |
| Standards/specifications | EN 61643-21/A2 2013 |
| | EN 60079-0 2012 |
| | EN 60079-1 2007 |
| | EN 60079-11 2012 |
| | EN 60079-26 2007 |
| | EN 60079-31 2009 |
| | IEC 60079-0 2011 |
| | IEC 60079-1 2007 |
| | IEC 60079-11 2011 |
| | IEC 60079-26 2006 |
| | IEC 60079-31 2008 |

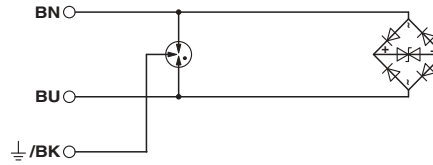
Drawings

Surge protection device - S-PT-EX-48DC-1/2" - 2800054

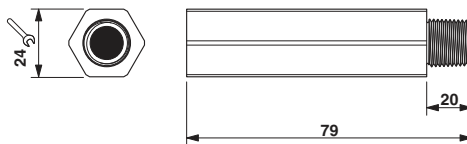
Application drawing



Circuit diagram



Dimensional drawing



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 |
| ETIM 5.0 | EC000943 |

UNSPSC

| | |
|-------------|----------|
| UNSPSC 6.01 | 30212010 |
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Classifications

UNSPSC

| | |
|---------------|----------|
| UNSPSC 7.0901 | 39121610 |
| UNSPSC 11 | 39121610 |
| UNSPSC 12.01 | 39121610 |
| UNSPSC 13.2 | 39121620 |

Approvals

Approvals

Approvals

EAC

Ex Approvals

IECEX / ATEX

Approval details

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|-------------------------|
| EAC 7500651.22.01.00243 |
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