

## 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) $\mu s$ (Core-Core)    | 170 A                               |
| Nominal discharge current $I_n$ (8/20) $\mu s$ (Core-Earth)   | 10 kA                               |
| Pulse discharge current $I_{imp}$ (10/350) $\mu s$            | 1 kA                                |
| Total discharge current $I_{Total}$ (8/20) $\mu s$            | 20 kA                               |
| Total discharge current $I_{Total}$ (10/350) $\mu s$          | 2 kA                                |
| Nominal pulse current $I_{an}$ (10/1000) $\mu s$ (Core-Core)  | 34 A                                |
| Output voltage limitation at 1 kV/ $\mu s$ (Core-Core) spike  | $\leq 160 V$                        |
| 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 | $\leq 80 V$                         |
| 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 $\Omega$ ) |
|                                                               | 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. 40 MHz                         |
| Capacity (Core-Core)                                          | typ. 20 pF                          |
| Capacity (Core-Earth)                                         | typ. 5 pF                           |
| Surge protection fault message                                | None                                |

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### Technical data

#### 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 |
|-------------------|------------------|

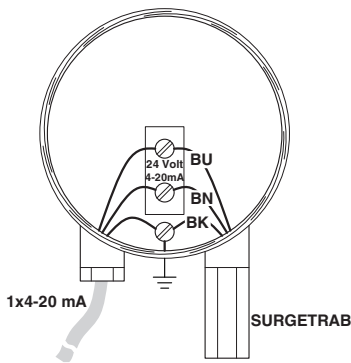
#### Standards and Regulations

|                          |                     |
|--------------------------|---------------------|
| 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   |

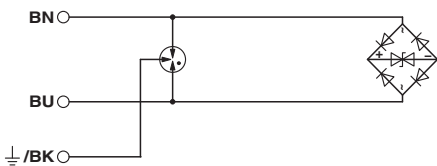
### Drawings

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

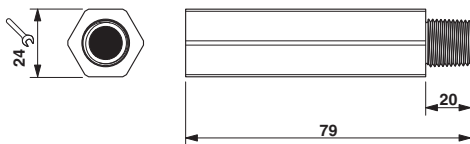
Application drawing



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

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Approvals

EAC

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Ex Approvals

IECEX / ATEX

#### Approval details

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

单击下面可查看定价，库存，交付和生命周期等信息

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