

Surge protection device - S-PT-EX-48DC - 2800053

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Surge protection for one floating signal circuit in screw-on module with IP67 protection for sensor heads, connection M20 x 1.5. 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)	0.22 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	M20
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
Maximum continuous voltage U_C (wire-wire)	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
Total surge current (8/20) μs	20 kA
Total surge current (10/350) μs	2 kA
Nominal pulse current I_{an} (10/1000) μs (Core-Core)	34 A
Impulse discharge current (10/350) μs , peak value I_{imp}	1 kA
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

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Protective circuit

Capacity (Core-Earth)	typ. 5 pF
Surge protection fault message	None
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 - 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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Classifications

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

Approvals

EAC

Ex Approvals

IECEX / ATEX

Approvals submitted

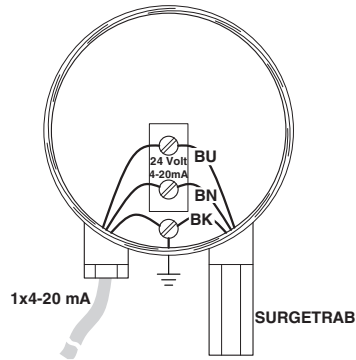
Approval details

EAC

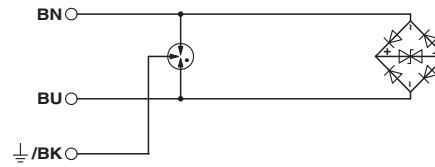
Drawings

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Application drawing



Circuit diagram



Dimensional drawing

