

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

package_quantity	1
GTIN	4046356411011

Technical data

Dimensions

Height	28 mm
Width	28 mm
Depth	79 mm

Ambient conditions

Ambient temperature (operation)	-25 °C ... 80 °C (non-EX)
Degree of protection	IP67

General

Housing material	High-grade steel
Color	silver
Standards for air and creepage distances	IEC 60664-1
Standards for air and creepage distances	IEC 60079-11
Mounting type	1/2 inch NPT
Design	Screw-in module
Number of positions	2
Direction of action	Line-Line & Line-Earth Ground

Protective circuit

IEC test classification	C1
IEC test classification	C2

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Protective circuit

IEC test classification	C3
IEC test classification	D1
Nominal voltage U_N	24 V DC
Maximum continuous operating voltage U_C	36 V DC
Maximum continuous operating voltage U_C	25 V AC
Maximum continuous voltage U_C (wire-wire)	36 V DC
Maximum continuous voltage U_C (wire-wire)	25 V AC
Residual current I_{PE}	$\leq 2 \mu A$
Nominal discharge current I_n (8/20) μs (Core-Core)	260 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)	50 A
Impulse discharge current (10/350) μs , peak value I_{imp}	1 kA
Output voltage limitation at 1 kV/ μs (Core-Core) spike	$\leq 130 V$
Output voltage limitation at 1 kV/ μs (Core-Earth) spike	$\leq 1.1 kV$
Output voltage limitation at 1 kV/ μs (Core-Core) static	$\leq 60 V$
Voltage protection level U_P (Core-Core)	$\leq 65 V$ (C3 - 10 A)
Voltage protection level U_P (Core-Earth)	$\leq 1.1 kV$ (C3 - 100 A)
Voltage protection level U_P (Core-Earth)	$\leq 1.1 kV$ (C1 - 500 A)
Voltage protection level U_P (Core-Earth)	$\leq 1.2 kV$ (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)
Input attenuation a_E , sym.	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. 70 MHz
Capacity (Core-Core)	typ. 20 pF
Capacity (Core-Earth)	typ. 5 pF
Resistance in series	0 Ω
Message: Surge protection fault	None
Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)	C3 (25 A)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	C1 (1 kV / 500 A)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	C2 (10 kV/5 kA)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	C3 (100 A)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	D1 - 1kA
Alternating current carrying capacity in acc. with IEC 61643-21 (Core-Earth)	10 A - 1 s

Connection data

Connection method	Individual wires
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Standards and Regulations

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

ETIM

ETIM 2.0	EC000943
ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 5.0	EC000943

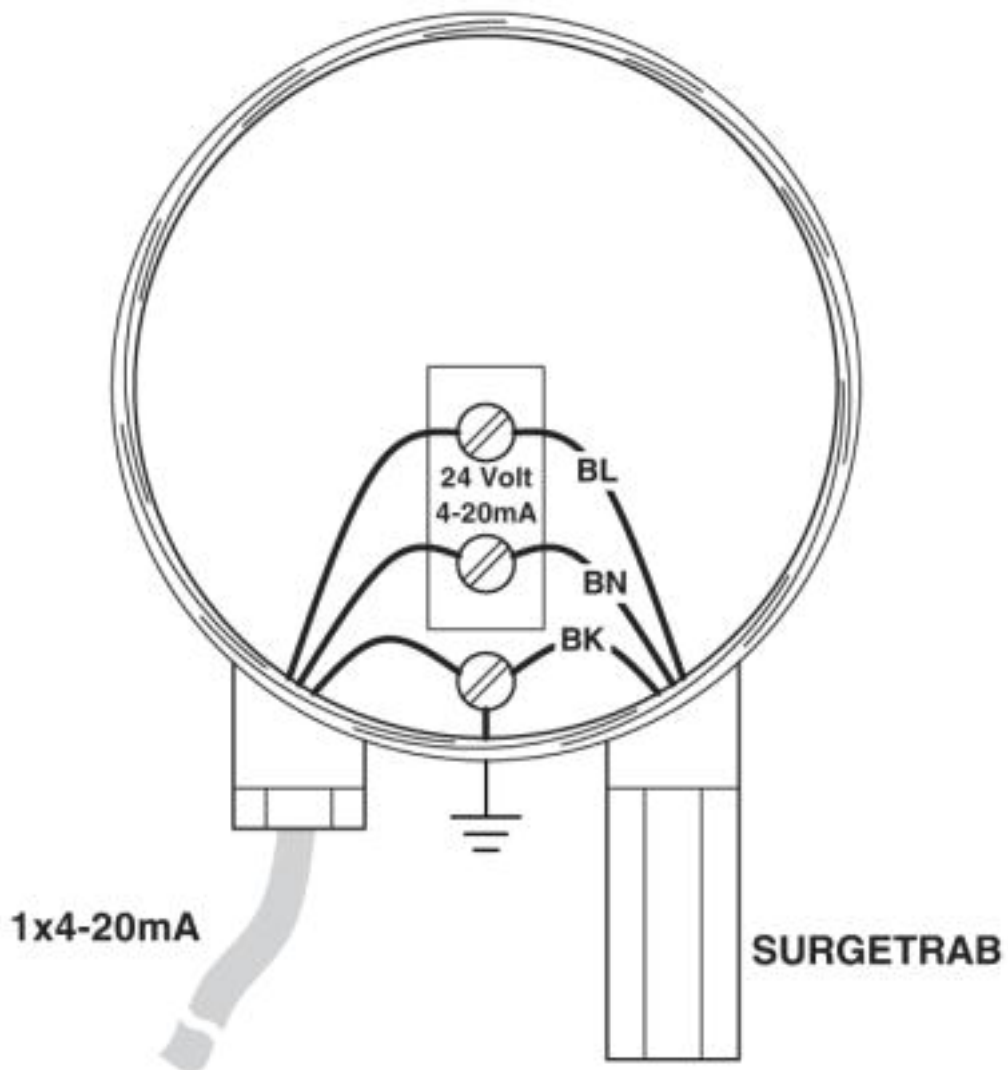
UNSPSC

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

Drawings

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

Application drawing

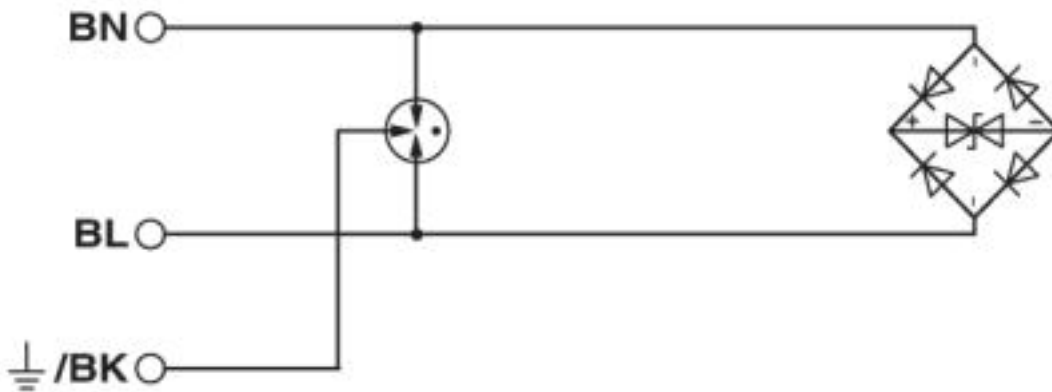


Dimensioned drawing



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Circuit diagram



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