

Surge protection device - S-PT-1X2-24DC - 2880668

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Surge protection in the IP67 screw-on module for measuring sensors, direct mounting with M20 x 1.5 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 pc
GTIN	 4 046356 049009
Weight per Piece (excluding packing)	352.52 g
Custom tariff number	85363010
Country of origin	Germany
Note	Made to Order (non-returnable)

Technical data

Dimensions

Height	34 mm
Width	34 mm
Depth	137 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 air and creepage distances	IEC 60664-1

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Technical data

General

	VDE 0110-1
Mounting type	ct screw connection
Type	Screw-in module
Number of positions	3
Direction of action	Line-Line & Line-Earth Ground

Protective circuit

IEC test classification	C1
	C2
	C3
	D1
Nominal voltage U_N	24 V DC
Maximum continuous operating 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) μs (Core-Core)	10 kA
Nominal discharge current I_n (8/20) μs (Core-Earth)	10 kA
Nominal discharge current I_n (8/20) μs (Shield-Earth)	10 kA (optional)
Total surge current (8/20) μs	20 kA
Total surge current (10/350) μs	2 kA
Max. discharge current I_{max} (8/20) μs maximum (Core-Core)	10 kA
Max. discharge current I_{max} (8/20) μs maximum (Core-Earth)	10 kA
Max. discharge current I_{max} (8/20) μs maximum (Shield-Earth)	10 kA
Nominal pulse current I_{an} (10/1000) μs (Core-Core)	23 A
Nominal pulse current I_{an} (10/1000) μs (Core-Earth)	100 A
Nominal pulse current I_{an} (10/1000) μs (Shield-Earth)	100 A
Impulse discharge current (10/350) μs , peak value I_{imp}	1 kA
Output voltage limitation at 1 kV/ μs (Core-Core) spike	$\leq 55 V$
Output voltage limitation at 1 kV/ μs (Core-Earth) spike	$\leq 450 V$ (Direct grounding)
Output voltage limitation at 1 kV/ μs (Shield-Earth) spike	$\leq 600 V$ (optional)
Output voltage limitation at 1 kV/ μs (Core-Core) static	$\leq 55 V$
Output voltage limitation at 1 kV/ μs (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) μs (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)

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Protective circuit

Voltage protection level U_p (shield-ground)	≤ 600 V (C2 -5 kA optional)
Response time t_A (Core-Core)	≤ 1 ns
Response time t_A (Core-Earth)	≤ 100 ns
Response time t_A (Shield-Earth)	≤ 100 ns
Input attenuation a_E , sym.	typ. 0.5 dB (≤ 1.5 MHz / 50 Ω)
	typ. 0.2 dB (≤ 300 kHz / 150 Ω)
Cut-off frequency f_g (3 dB), sym. in 50 Ohm system	typ. 6 MHz
Cut-off frequency f_g (3 dB), sym. in 150 Ohm system	typ. 2 MHz
Resistance in series	2.2 Ω
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 stranded min.	0.14 mm ²
Conductor cross section stranded max.	1.5 mm ²
Conductor cross section solid min.	0.14 mm ²
Conductor cross section solid max.	1.5 mm ²
Conductor cross section AWG/kcmil min.	26
Conductor cross section AWG/kcmil 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

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Classifications

eCl@ss

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

Approvals

Approvals

Approvals

EAC

Ex Approvals

Approvals submitted

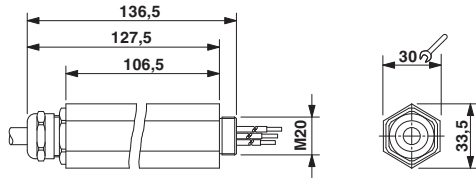
Approval details

EAC

Drawings

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Dimensioned drawing



Circuit diagram

