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

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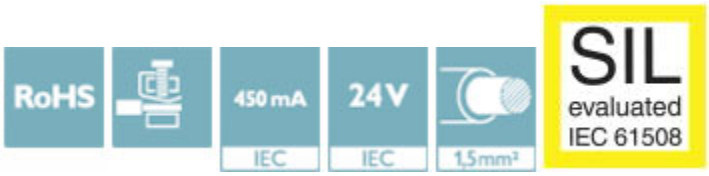
Surge protection in the IP67 screw-on module for measuring sensors, direct mounting with M20 x 1.5 outer thread, cable gland for the signal cable, two-stage protective circuit. HART-compatible.

Why buy this product

- Arresters in hexagonal pipe with various outer threads



Key Commercial Data

Packing unit	1 STK
GTIN	4 046356 049009
GTIN	4046356049009
Weight per Piece (excluding packing)	400.000 g
Custom tariff number	85363010
Country of origin	Germany

Technical data

Dimensions

Height	33.5 mm
Width	33.5 mm
Depth	137 mm

Ambient conditions

Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 2000 m (amsl (above mean sea level))

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Ambient conditions

Degree of protection	IP67

General

Housing material	Zinc die-cast, surface bronzed and nickel-plated
Color	silver
Standards for cearances and creepage distances	IEC 60664-1
	VDE 0110-1
Mounting type	direct 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 voltage U_C	40 V DC
	28 V AC
Rated current	450 mA (55 °C)
Operating effective current I_C at U_C	≤ 10 µA
Residual current I_{PE}	≤ 2 µA
Nominal discharge current I_n (8/20) µs (Core-Core)	10 kA
Nominal discharge current I_n (8/20) µs (core-earth)	10 kA (per path)
Nominal discharge current I_n (8/20) µs (Shield-Earth)	10 kA (optional)
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
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 (per path)
Max. discharge current I_{max} (8/20) µs maximum (Shield-Earth)	10 kA
Nominal pulse current Ian (10/1000) µs (Core-Core)	23 A
Nominal pulse current Ian (10/1000) µs (Core-Earth)	100 A
Nominal pulse current Ian (10/1000) µs (Shield-Earth)	100 A
Output voltage limitation at 1 kV/µs (core-core) spike	≤ 55 V
Output voltage limitation at 1 kV/µs (core-earth) spike	≤ 450 V (Direct grounding)
Output voltage limitation at 1 kV/µs (Shield-Earth) spike	≤ 600 V (optional)

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Protective circuit

Output voltage limitation at 1 kV/µs (core-core) static	≤ 55 V
Output voltage limitation at 1 kV/µs (core-earth) static	≤ 450 V (Direct grounding)
Residual voltage at I_n (conductor-conductor)	≤ 55 V
Residual voltage with Ian (10/1000)µs (conductor-conductor)	≤ 65 V
Voltage protection level U_p (core-core)	≤ 80 V (C2 - 10 kV / 5 kA)
Voltage protection level U_p (core-ground)	≤ 450 V (C2 - 10 kV / 5 kA)
Voltage protection level U_p (shield-ground)	≤ 600 V (C2 - 10 kV / 5 kA)
Voltage protection level U_p static (core-core)	≤ 50 V (C2 - 10 kV / 5 kA)
Response time tA (core-core)	≤ 1 ns
Response time tA (core-earth)	≤ 100 ns
Response time tA (Shield-Earth)	≤ 100 ns
Input attenuation aE, sym.	typ. 0.5 dB (≤ 1.5 MHz / 50 Ω)
	typ. 0.2 dB (≤ 300 kHz / 150 Ω)
Cut-off frequency fg (3 dB), sym. in 50 Ohm system	typ. 6 MHz
Cut-off frequency fg (3 dB), sym. in 150 Ohm system	typ. 2 MHz
Resistance in series	2.2 Ω ±10 %
Surge protection fault message	none
Max. required back-up fuse	500 mA (T)
Impulse durability (conductor-conductor)	C2 - 10 kV/5 kA
	D1 - 1 kA
Impulse durability (conductor-ground)	C2 - 10 kV/5 kA
	D1 - 1 kA
Impulse durability (shield-ground)	C2 - 10 kV / 5 kA
	D1 - 1 kA

Connection data

Connection method	Screw connection
Connection method IN	Screw terminal blocks
Connection method OUT	Connection line
Connection technology	Screw connection
Screw thread	M3
Tightening torque	0.6 Nm
Stripping length	6 mm
Conductor cross section flexible	0.14 mm² ... 1.5 mm²
Conductor cross section solid	0.14 mm² ... 1.5 mm²
Conductor cross section AWG	26 ... 16

Standards and Regulations

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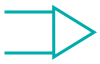
Standards/specifications	IEC 61643-21 2002

Environmental Product Compliance

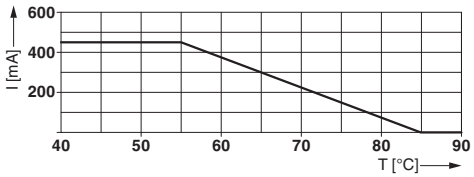
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

Drawings

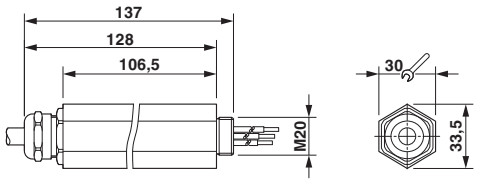
Pictogram



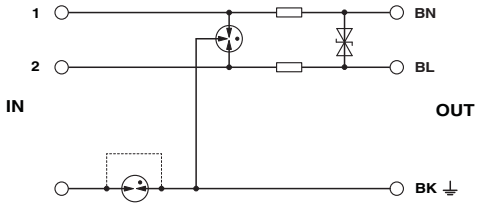
Diagram



Dimensional drawing



Circuit diagram



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

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ETIM

ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 5.0	EC000943
ETIM 6.0	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

Approval details

EAC	EAC	RU C-DE.A*30.B01561