Surge protection device - S-PT-1X2-24DC-1/2" - 2882569

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (http://phoenixcontact.com/download)

Surge protection in the IP67 screw-on module for measuring sensors, direct mounting with 1/2" NPT outer thread, cable gland for the signal cable, two-stage protective circuit. HART-compatible.

Product Features

- Arresters in hexagonal pipe with various outer threads

Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	3.2 GRM
Custom tariff number	85369010
Country of origin	Germany

Technical data

Dimensions

Height	34 mm
Width	34 mm
Depth	148 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

Surge protection device - S-PT-1X2-24DC-1/2" - 2882569

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 UC (wire-wire)	40 V DC
	28 V AC
Nominal current I_N	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
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 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
Impulse discharge current (10/350)#µs, peak value I_{imp}	1 kA
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)
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

Surge protection device - S-PT-1X2-24DC-1/2" - 2882569

Technical data

Protective circuit

Residual voltage with Ian (10/1000)µs (conductor-conductor)	≤ 65 V
Voltage protection level U_p (core-core)	≤ 80 V (C2 -5 kA)
Voltage protection level U_p (core-ground)	≤ 450 V (C2 -5 kA, direct grounding)
Voltage protection level U_p (shield-ground)	≤ 600 V (C2 -5 kA optional)
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
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 mm²
Conductor cross section stranded max.	1.5 mm²
Conductor cross section solid min.	0.14 mm²
Conductor cross section solid max.	1.5 mm²
Conductor cross section AWG/kcmil min.	26
Conductor cross section AWG/kcmil max	16

Standards and Regulations

Standards/regulations	IEC 61643-21

Surge protection device - S-PT-1X2-24DC-1/2" - 2882569

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

Approvals

Approvals

Approvals

EAC

Ex Approvals

Approvals submitted

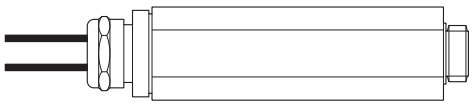
Approval details

EAC

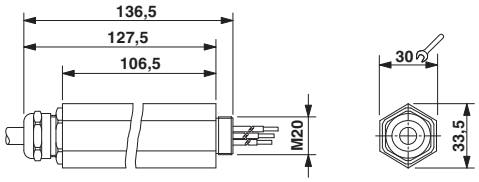
Surge protection device - S-PT-1X2-24DC-1/2" - 2882569

Drawings

Product drawing



Dimensioned drawing



Circuit diagram