

S-PT-1X2-24DC

Order No.: 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.

**Commercial data**

GTIN (EAN)	 4 046356 049009
Note	Made-to-order
sales group	J330
Pack	1 pcs.
Customs tariff	85363010
Catalog page information	Page 114 (TT-2011)

Product notes

WEEE/RoHS-compliant since:
06/19/2006



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Technical data**General**

Housing material	Zinc die-cast, surface bronzed and nickel-plated
Color	silver

Standards for air and creepage distances	IEC 60664-1: 1992-10
	VDE 0110-1
Total surge current (8/20) μ s	20 kA
Total surge current (10/350) μ s	2 kA
Ambient temperature (operation)	-40 °C ... 85 °C
Mounting type	Direct screw connection
Design	Screw-in module
Number of positions	3
Degree of protection	IP67
Direction of action	Line-Line & Line-Earth Ground
Width	34.00 mm
Height	137.00 mm
Length	34.00 mm

Protective circuit

IEC category	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
Ground conductor current I_{PE}	$\leq 2 \mu$ A
Nominal discharge surge current I_n (8/20) μ s (Core-Core)	10 kA
Nominal discharge surge current I_n (8/20) μ s (Core-Earth)	10 kA
Nominal discharge surge current I_n (8/20) μ s (Shield-Earth)	10 kA (optional)
Total surge current (8/20) μ s	20 kA
Max. discharge surge current I_{max} (8/20) μ s maximum (Core-Core)	10 kA
Max. discharge surge current I_{max} (8/20) μ s maximum (Core-Earth)	10 kA

Max. discharge surge 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
Lightning test 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
Residual voltage with I_{an} (10/1000) μs (conductor-conductor)	≤ 65 V
Protection level U_p (Core-Core)	≤ 80 V (C2 -5 kA)
Protection level U_p (Core-Earth)	≤ 450 V (C2 -5 kA, direct grounding)
Protection level U_p (Shield-Earth)	≤ 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 aE, 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
Max. required back-up fuse	500 mA (e.g. T in acc. with IEC 127-2/III)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)	C2 (10 kV/5 kA)
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 (Shield-Earth)	C2 (10 kV/5 kA)
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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

Connection, protective circuit

Standards/regulations	IEC 61643-21
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Certificates / Approvals

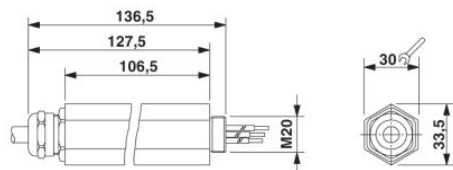


Certification

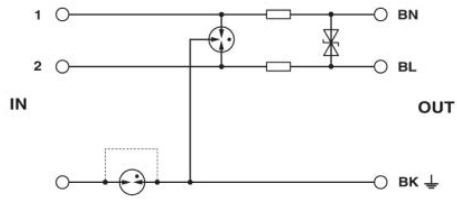
GOST

Diagrams/Drawings

Dimensioned drawing



Circuit diagram



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