

**S-PT-1X2-24DC-1/2"**

Order No.: 2882569

<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2882569>

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.

**Commercial data**

GTIN (EAN)	 4 046356 091657
Note	Made-to-order
sales group	J330
Pack	1 pcs.
Customs tariff	85369010
Catalog page information	Page 114 (TT-2011)

**Product notes**

WEEE/RoHS-compliant since:  
05/31/2006



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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) $\mu$ s	20 kA
Total surge current (10/350) $\mu$ 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	148.00 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) $\mu$ s (Core-Core)	10 kA
Nominal discharge surge current $I_n$ (8/20) $\mu$ s (Core-Earth)	10 kA
Nominal discharge surge current $I_n$ (8/20) $\mu$ s (Shield-Earth)	10 kA (optional)
Total surge current (8/20) $\mu$ s	20 kA
Max. discharge surge current $I_{max}$ (8/20) $\mu$ s maximum (Core-Core)	10 kA
Max. discharge surge current $I_{max}$ (8/20) $\mu$ s maximum (Core-Earth)	10 kA

Max. discharge surge current $I_{max}$ (8/20) $\mu s$ maximum (Shield-Earth)	10 kA
Nominal pulse current $I_{an}$ (10/1000) $\mu s$ (Core-Core)	23 A
Nominal pulse current $I_{an}$ (10/1000) $\mu s$ (Core-Earth)	100 A
Nominal pulse current $I_{an}$ (10/1000) $\mu s$ (Shield-Earth)	100 A
Lightning test current (10/350) $\mu s$ , peak value $I_{imp}$	1 kA
Output voltage limitation at 1 kV/ $\mu s$ (Core-Core) spike	$\leq 55$ V
Output voltage limitation at 1 kV/ $\mu s$ (Core-Earth) spike	$\leq 450$ V (Direct grounding)
Output voltage limitation at 1 kV/ $\mu s$ (Shield-Earth) spike	$\leq 600$ V (optional)
Output voltage limitation at 1 kV/ $\mu s$ (Core-Core) static	$\leq 55$ V
Output voltage limitation at 1 kV/ $\mu s$ (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) $\mu s$ (conductor-conductor)	$\leq 65$ V
Protection level $U_p$ (Core-Core)	$\leq 80$ V (C2 -5 kA)
Protection level $U_p$ (Core-Earth)	$\leq 450$ V (C2 -5 kA, direct grounding)
Protection level $U_p$ (Shield-Earth)	$\leq 600$ V (C2 -5 kA optional)
Response time $t_A$ (Core-Core)	$\leq 1$ ns
Response time $t_A$ (Core-Earth)	$\leq 100$ ns
Response time $t_A$ (Shield-Earth)	$\leq 100$ ns
Input attenuation aE, sym.	Typ. 0.5 dB ( $\leq 1.5$ MHz / 50 $\Omega$ ) Typ. 0.2 dB ( $\leq 300$ kHz / 150 $\Omega$ )
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 $\Omega$
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 <sup>2</sup>
Conductor cross section stranded max.	1.5 mm <sup>2</sup>
Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	1.5 mm <sup>2</sup>
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**

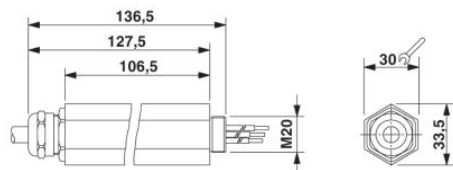


Certification

GOST

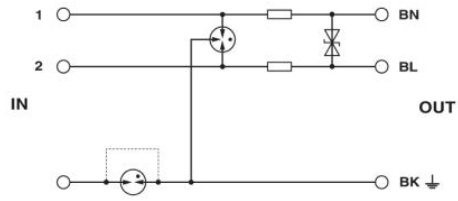
**Diagrams/Drawings**

Dimensioned drawing



Circuit diagram

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