

S-PT-EX(I)-24DC-3/4"


Order No.: 2882585



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Surge protection in the IP67 screw-on module for measuring sensors in intrinsically safe circuits, direct mounting with 3/4" NPT outer thread, cable gland for the signal cable, two-stage protective circuit. HART-compatible.



Commercial data	
GTIN (EAN)	 4 046356 098076
Note	Made-to-order
sales group	J331
Pack	1 pcs.
Customs tariff	85363010
Catalog page information	Page 114 (TT-2011)

Product notes

WEEE/RoHS-compliant since:
05/24/2006



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Technical data	
General	
Housing material	Zinc die-cast
Color	silver

Standards for air and creepage distances	IEC 60664-1: 1992-10
	EN 60079-0
	EN 60079-11
Ambient temperature (operation)	-40 °C ... 50 °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	30 V DC
	21 V AC
Maximum continuous voltage U_C (wire-wire)	30 V DC
	21 V AC
Nominal current I_N	350 mA (50°C)
Operating effective current I_C at U_C	$\leq 10 \mu\text{A}$
Ground conductor current I_{PE}	$\leq 2 \mu\text{A}$
Nominal discharge surge current I_n (8/20) μs (Core-Core)	10 kA
Nominal discharge surge current I_n (8/20) μs (Core-Earth)	10 kA
Nominal discharge surge current I_n (8/20) μs (Shield-Earth)	10 kA (optional)
Max. discharge surge current I_{max} (8/20) μs maximum (Core-Core)	10 kA
Max. discharge surge current I_{max} (8/20) μs 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) μ s (Core-Core)	30 A
Nominal pulse current I_{an} (10/1000) μ s (Core-Earth)	100 A
Nominal pulse current I_{an} (10/1000) μ s (Shield-Earth)	100 A
Lightning test current (10/350) μ s, peak value I_{imp}	1 kA
Output voltage limitation at 1 kV/ μ s (Core-Core) spike	≤ 50 V
Output voltage limitation at 1 kV/ μ s (Core-Earth) spike	≤ 1.4 kV (Direct grounding)
Output voltage limitation at 1 kV/ μ s (Shield-Earth) spike	≤ 600 V (optional)
Output voltage limitation at 1 kV/ μ s (Core-Core) static	≤ 50 V
Output voltage limitation at 1 kV/ μ s (Core-Earth) static	≤ 1.4 kV (Direct grounding)
Residual voltage at I_n , (conductor-conductor)	≤ 50 V
Residual voltage with I_{an} (10/1000) μ s (conductor-conductor)	≤ 50 V
Protection level U_p (Core-Core)	≤ 55 V (C2 - 5 kA) ≤ 50 V (C1 - 250 A) ≤ 50 V (C3 - 25 A) ≤ 80 V (D1 - 1 kA)
Protection level U_p (Core-Earth)	≤ 1.4 kV (C2 - 5 kA, direct grounding) ≤ 1.4 kV (C1 - 500 A) ≤ 1.4 kV (C3 - 100 A) ≤ 1.4 kV (D1 - 1 kA)
Protection level U_p (Shield-Earth)	≤ 650 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 MHz / 50 Ω) Typ. 0.2 dB (Up to 400 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. 2.5 MHz
Resistance in series	2.2 $\Omega \pm 10$ %

Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)	C2 (10 kV/5 kA)
	D1 (1 kA)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	C2 (10 kV/5 kA)
	D1 (1 kA)
Surge carrying capacity in acc. with IEC 61643-21 (Shield-Earth)	C2 (10 kV/5 kA)
	D1 (1 kA)
Alternating current carrying capacity in acc. with IEC 61643-21 (Core-Earth)	10 A - 1 s
Alternating current carrying capacity in acc. with IEC 61643-21 (Shield-Earth)	10 A - 1 s

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	DIN EN 61643-21
	EN 60079-0
	EN 60079-11
	EN 60079-26

General

Maximum inner capacitance C _i	2 nF
Maximum inner inductance L _i	1 µH

Max. input current I_i	350 mA (T4,T5,T6/≤ 50°C)
Max. input voltage U_i	30 V
Maximum input power P_i	3 W

Conformity / approvals

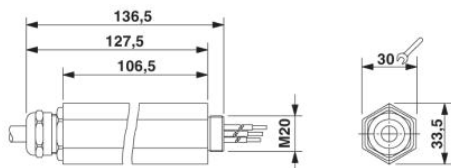
ATEX	Ex II 1G Ex ia IIC T4...T6 Ga
IECEX	Ex ia IIC T4...T6 Ga

Certificates / Approvals

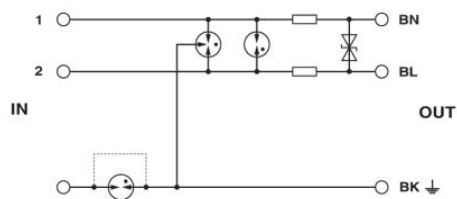
Certification	UCIEE
Certification Ex:	KEMA-EX

Diagrams/Drawings

Dimensioned drawing



Circuit diagram



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