

#### Gas Discharge Tube Lightning Protector SMA connectors



#### Features:

- Multiple Strike Capability
- + 10 kA Surge Protection
- + Lifetime gas tube
- Rugged and water resistant
- + DC pass
- Bi-directional Protection

## **RF Specifications**

Nominal Impedance: 50Ω

Frequency (GHz)	VSWR	Insertion Loss (dB)	
dc – 2.5	1.25 Тур	0.15 Тур	

- + Through Current: 65V/5 A Max
- RF Power: See Protection Voltage table

# **Transient Specifications**

(1.2X50µs Voltage / 8X20µs Current waveform)

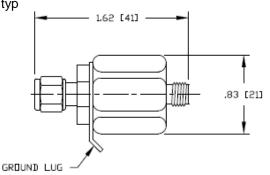
- ✤ Gas Discharge Tube 90 to 470 V
- Maximum Transient: 10 kA (surge limited by SMA connector size)
- Multiple Strike: 7.5kA 10 times
- Let-through: See Protection Voltage table

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#### **Mechanical Specifications**

- + Mounting/Grounding: Mounting to a grounded bulkhead SMA and/or by integral ground lug
- + Weight: 0.10 pounds typ / 45 g typ



#### **Environmental Specifications**

Temperature Range	-40°C to +90°C
Salt Fog	MIL-STD-202 Method 101D / Condition B (35°C/96 hrs)
Immersion	MIL-STD-202 Method 104A / Condition A (65°C to 25°C w/NaCl – 2 cycles)
Moisture Resistance	MIL-STD-202 Method 106E (65°C/98% RH condensing/240 hrs)
Temperature Shock	MIL-STD-202 Method 107D / Condition B-1 (25 cycles -65°C to +125°C)
Life (Elevated Temperature)	MIL-STD-202 Method 108A/ Condition A (96 hours at 100°C)
Dust and Waterproof Rating	IEC529 IP67 (dust-tight and water proof 30 min / 1 m)
Vibration	MIL-STD-202 Method 204D / Condition D (10Hz-2kHz 0.06"DA/20g)
Mechanical Shock	MIL-STD-202 Method 213 / Condition A (50g/11ms ~24")

#### **Protection Voltage**

Protection Voltage <sup>4</sup>	Voltage Code <sup>1</sup>	RF Power (W)²	Let- through (V <sub>pk</sub> / μJ) <sup>3</sup>
90	09	37	600 / 0.3
150	15	95	600 / 0.3
230	23	240	650 / 0.5
350	35	550	800 / 0.7
470	47	1000	1200 / 2.2

## **Material and Finish**

Component	Material	Finish
Outer Parts	Brass	Nickel
Center Contact	BeCu	Gold
Insulator	PTFE	-
Gasket	Elastomer	-

<sup>1</sup> Use in ordering part number

<sup>2</sup> For single frequency signal; multiple carrier sum of

Vpeak should be less than 60% of Protection Voltage

<sup>3</sup> Input is 4kV 1.2x50µs / 2 kA 8x20µs

<sup>4</sup> For voltages greater than 470 please call Nextek

#### Part Number

PTC SAM SAF XX S

S specifies the standard model
→ Voltage Code - select based on the RF power. Use 23 for most applications
Connector code for SMA female
Connector code SAM for SMA male
PTC Family - (Protector w/ Gas Discharge Tubes)