

Gas Discharge Tube Lightning Arrestor N to SMA Connectors and a Replaceable Protective Element



Features:

- Transition from rugged N to more compact SMA connector
- DC pass
- Multiple Strike Capability
- 40 kA Surge Protection
- **Bi-directional Protection**
- Rugged and Water Resistant

RF Specifications

Nominal Impedance – 50Ω

Frequency (GHz)	VSWR	Insertion Loss (dB)		
dc – 2.0	1.15 Max	0.2 Max		
2.0 – 2.5	1.25 Max	0.3 Max		

- Through Current: 68 Vdc/5A Maximum
- RF Power: See Protection Voltage table

Transient Specifications

(1.2X50µs Voltage / 8X20µs Current waveform)

- Maximum Transient: 40 kA
- Multiple Strike: 20 kA 10 times
- Let-through: See Protection Voltage table
- Replaceable Gas Discharge Tube 90V to 1000V

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Typical VSWR and Insertion Loss

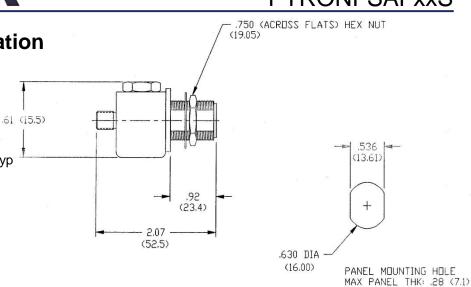


## Product Specification PTRONFSAFxxS

### **Mechanical Specification**

- Mounting/Grounding: 

   6.625
   (15.9) bulkhead mount with environmental gasket. Can also be grounded by wire to grounding lug
- + Weight: 0.2 pounds typ / 90 g typ



### **Environmental Specifications**

Temperature Range	-40°C to +90°C	
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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 IP68 (dust-tight and water proof 24 hrs / 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 ⁴	Voltage Code ¹	RF Power (W) ²	Let-through (V _{pk} / μJ) ³
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
600	60	1600	1500 / 4.4

# **Material and Finish**

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

¹ use voltage code in ordering part number

 ² for multiple carrier sum of peak voltage should be less than 60% of protection voltage

³ input is 6kV 1.2x50µs / 3 kA 8x20µs waveform

⁴ for voltages greater than 600V, please contact NexTek

### Part Number

PTR ONF 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 for N female
  - PTR Family (Protector w/ Replaceable Gas Discharge Tubes)