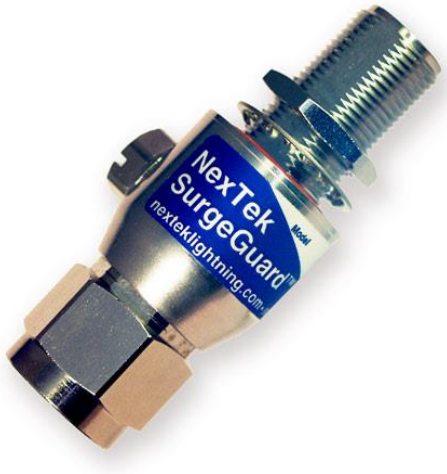
Product Specification
PTRONxONFxxS

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



PTRONMONFxxS (N-Male to N-Female)

Features:

- **Frequency to 3.2 GHz Excellent RF Performance**
- **Multiple Strike Capability**
- **50 kA Surge Protection**
- **Bi-directional Protection**
- **Rugged and Waterproof**
- **High RF Power and Low PIM**

RF Specifications

- Nominal Impedance – 50 Ω

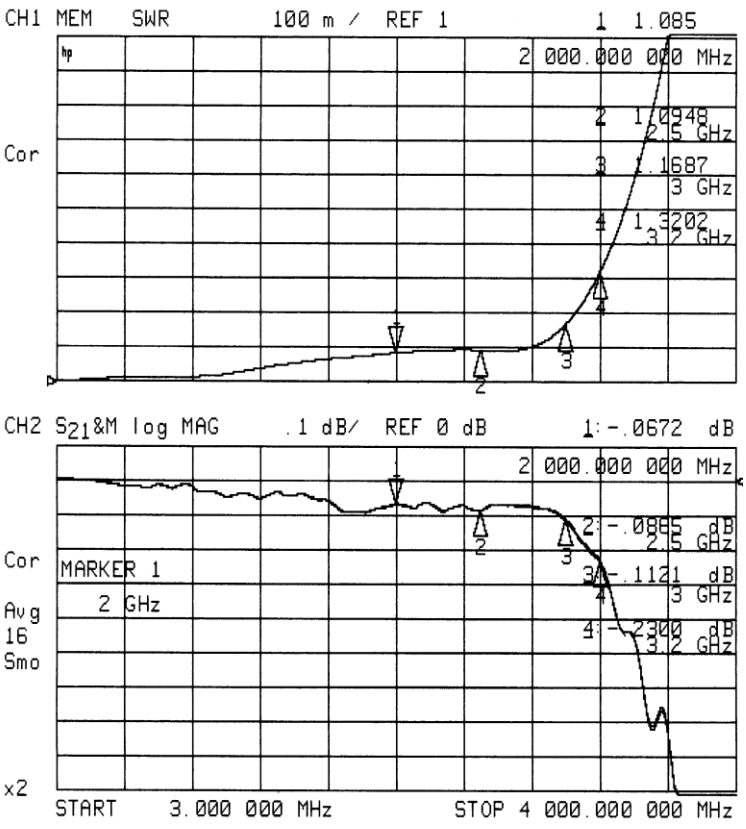
Frequency (GHz)	VSWR	Insertion Loss (dB)
dc – 2.5	1.15 Max	0.10 Max
2.5 – 3.0	1.20 Max	0.15 Max
3.0 – 3.2	1.35 Typ	0.25 Typ

- Through Current: 65V/10A Max
- RF Power: See Protection Voltage table
- PIM3: -116 dBc
  (2X43 dBm 1.9 GHz tones)

Transient Specifications

(1.2X50μs Voltage / 8X20μs Current waveform)

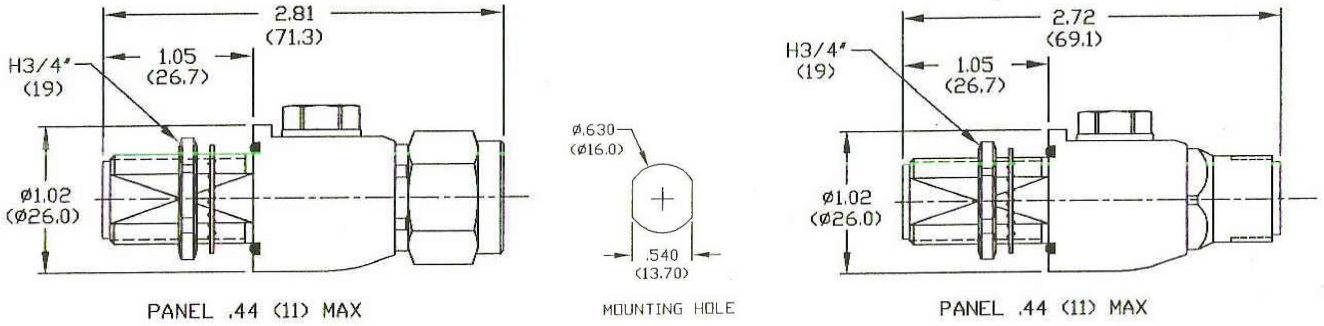
- Maximum Transient: 50 kA
- Multiple Strike: 20 kA 10 times
- Let-through: See Protection Voltage table
- Replaceable Gas Discharge Tube 90V to 1000V



Typical VSWR and Insertion Loss

Mechanical Specifications

- Weight 0.28 pounds typ/125 g typ



Environmental Specifications

Temperature Range	-40ºC to +90ºC
Salt Fog	MIL-STD-202 Method 101D / Condition B (35ºC/96 hrs)
Immersion	MIL-STD-202 Method 104A / Condition A (65ºC to 25ºC w/NaCl – 2
Moisture Resistance	MIL-STD-202 Method 106E (65 ºC/98% RH condensing/240 hrs)
Temperature Shock	MIL-STD-202 Method 107D / Condition B-1 (25 cycles -65ºC to +125ºC)
Life (Elevated Temperature)	MIL-STD-202 Method 108A / Condition A (96 hours at 100ºC)
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")

Material and Finish

Component	Material	Finish
Outer Parts	Brass	Guardplate™
Center Contact	BeCu	Gold
Insulator	PTFE	-
Gasket	Si Rubber	-

Guardplate™ is an alloy finish with the PIM and conductivity of Silver and the durability and anti-tarnish properties of Nickel.

[1] Use the voltage code in the part number
[2] For multiple carriers, sum of peak voltages should not exceed 60% of the protection voltage
[3] Input is 6kV @ 1.2x50μs/ 3kA @ 8x20μs.

Protection Voltage

Protection Voltage	Voltage Code[1]	RF Power (W)[2]	Let-through (V_{pk} / mJ)[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
800	80	2900	1900 / 9.0
1000	99	4500	2200 / 14

Part Number

PTR ONXONF XX S

- "S" Specifies the Standard model, mounting dimensions shown above
- Voltage Code - select based on the RF power. Use 23 for most applications
- Connector Codes – ONF ONF for female to female, ONM ONF for male to female
- PTR Family - (Protector w/ replaceable Gas Discharge Tubes)