Gas Discharge Tube Lightning Arrestor
7/16 Connectors and a Replaceable Protective Element

Features:

- **Frequency to 2.7 GHz**
- **Excellent RF Performance**
- **Multiple Strike Capability**
- **50 kA Surge Protection**
- **Bi-directional Protection**
- **Rugged and Waterproof**

RF Specifications

- Nominal Impedance – 50Ω

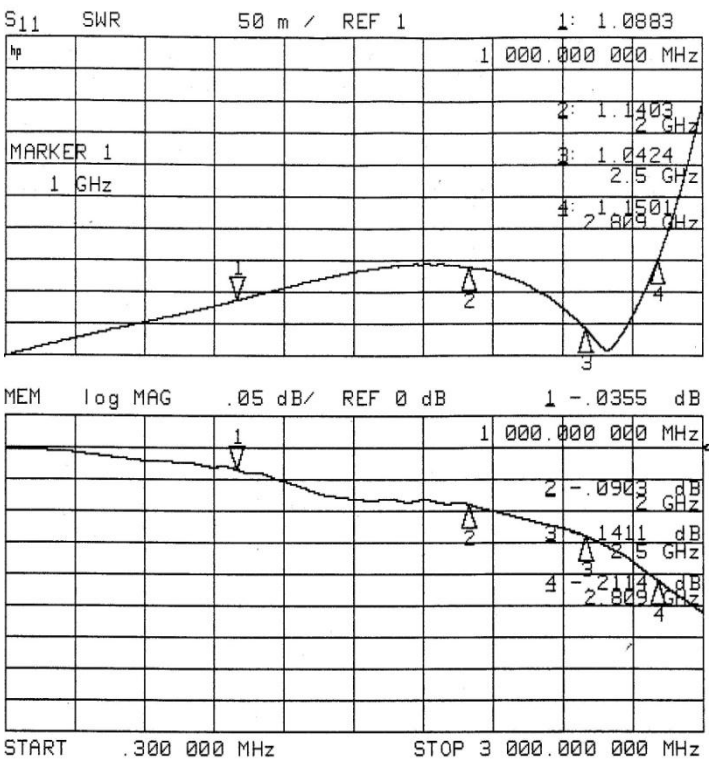
Frequency (MHz)	VSWR	Insertion Loss (dB)
DC - 1000	1.15 Max.	0.10 Max.
1000 - 2500	1.20 Max.	0.15 Max.
2500 - 2700	1.40 Max.	0.20 Max.

- Through Current: 65V/15A Max
- RF Power: See Protection Voltage table

Transient Specifications

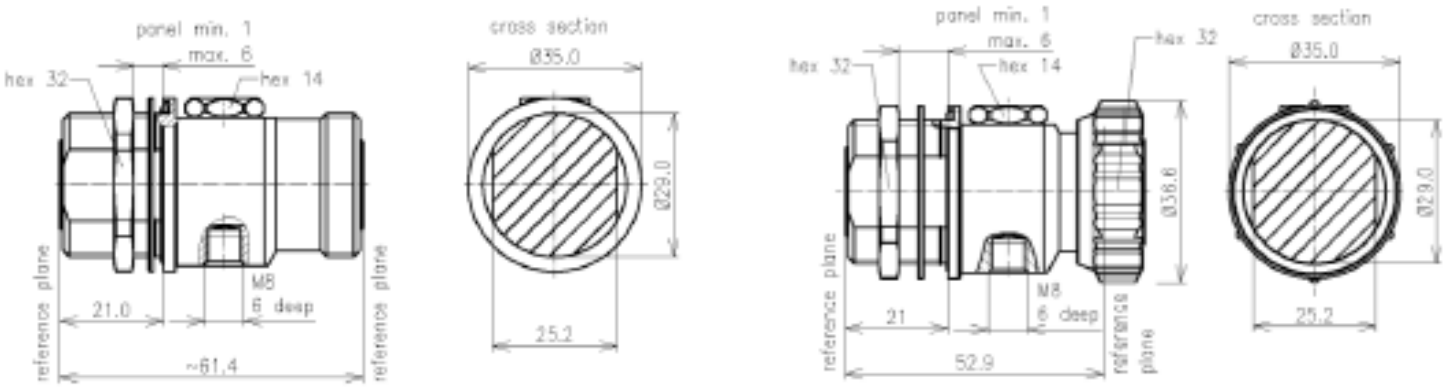
(1.2X50μs Voltage / 8X20μs Current waveform)

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



Typical VSWR and Insertion Loss

Mechanical Specifications



Environmental Specifications

Temperature Range	-40°C to +85°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	EC529 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
Body Outer Parts	Copper Alloy	Nickel Plated
Center Contact	Copper Alloy	Silver Plated
Insulator	PTFE	-
Gasket	Si Rubber	-

Protection Voltage

Protection Voltage[1]	Voltage Code[1]	RF Power Wcw	Let-Through[2] V_{pk}/mJ
90	09	37	600/0.3
230	23	240	650/0.5
600	60	1600	1500/4.4
1000	99	4500	2200/14.0

[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.

Part Number

PTR 7Ax 7AF XX S

- "S" Specifies the Standard model,
- Voltage Code - select based on the RF power. Use 23 for most applications
- Connector Codes – 7AF 7AF for female to female, 7AM 7AF for male to female
- PTR Family - (Protector w/ replaceable Gas Discharge Tubes)