

L-3 IOT 70

UHF-TV Transmitter Tube

The Inductive Output Amplifier is a high-efficiency tube operating in the UHF-TV frequency range of 470 to 860 MHz. The amplifier can be used in digital transmitters and in analog transmitters requiring combined vision/aural service, vision only service, and aural only service.



Ratings	Min.	Max.	Units
Heater Voltage	5	7	V
Heater Current (operating)	20	30	A
Heater Current (surge)	- - -	60	A
Heater Warm-Up Time	300	- - -	sec
Beam Voltage	22	36	kV
Beam Current (mean)	- - -	2.5	A
Quiescent Current	0.4	0.6	A
Body Current	- - -	50	mA
Solenoid Current	22	26	A
Collector Dissipation	- - -	55	kW
Load VSWR	- - -	1.5:1	- - -
Bias Voltage (ref. to cathode)	-50	-150	V
Grid Current	- - -	±150	mA
Ion Pump Current (beam on)	- - -	20	μA
Ion Pump Voltage (ref. to cathode)	3	4	kV
Drive Power for Visual Service Peak Sync.	- - -	400	W
Instantaneous Peak Output Power	- - -	95	kW
Peak Sync. Vision Only Output Power	- - -	75	kW
Aural Only Output Power	- - -	35	kW
Peak Sync. Vision O/P Power Common Mode	- - -	55	kW
Aural Output Power Common Mode	- - -	5.5	kW
Peak/Average Output Power (8VSB)	- - -	110/25	KW/kW
Peak/Average Input Power (8VSB)	- - -	950/160	W

Mechanical Specifications

Mechanical Outline	See back
Mounting Position	Collector end down
Focusing	Electromagnet
Cooling:	
Maximum Inlet Pressure	60 psi
Maximum Inlet Water Temperature	55°C
Maximum Outlet Water Temperature	75°C
Minimum Collector Flow (RO or DI water)	14.5 gpm
Minimum Body Flow (RO or DI water)	1.3 gpm
Collector Pressure Drop	40 psi
Air Flow to Input Cavity Mounted to Tube	90 cfm
Air Pressure at Intake	5"
Maximum Air Temperature at Intake	60°C
Weight (approx.)	50 lb

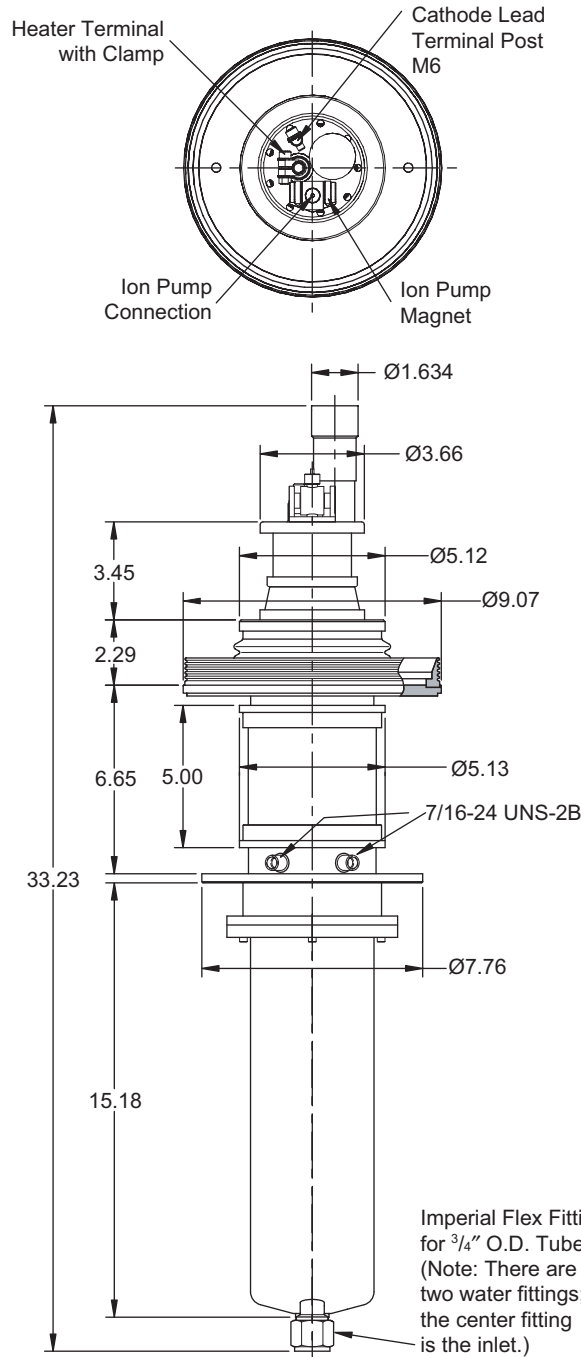


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L-3 IOT 70 UHF-TV Transmitter Tube

Outline Drawing



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Characteristics and operating conditions are based upon performance tests. These values may change as the result of further data or product refinement. L-3 Electron Devices should be consulted before using this information for product design.

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