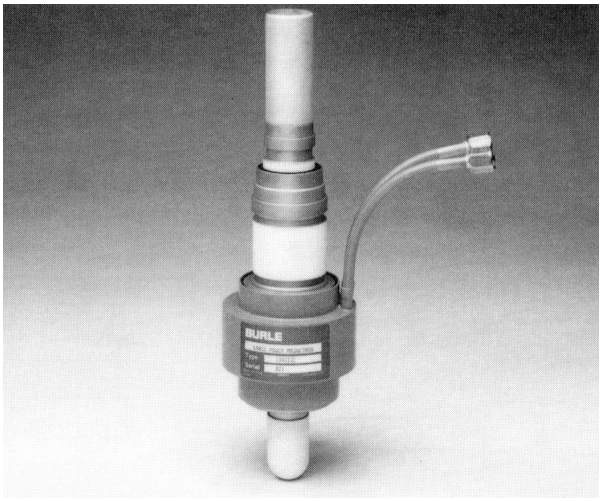
S94610E
Magnetron

Large Power Fixed Frequency S-Band C.W. Magnetron - For Industrial Applications



- **Ceramic-Metal Construction**
- **30 kW**
- **All Magnetron Support Equipment Available**

The BURLE S94610E is a fixed-tuned, magnetically-focused, air- and liquid-cooled, ceramic-metal magnetron designed for industrial processing applications. It can continuously generate 30 kilowatts of useful power at 2.45 GHz with very high efficiency.

General Data

Electrical

Filament:	
Starting voltage	6.4 V
Starting current	66 A
Cathode preheating time	>1 min.
Electromagnet Power (Separate Electro-magnet):	
Voltage	50 V
Current	6 A
Center frequency	2.45 ± .020 GHz

Mechanical

Cooling	Air & Liquid
Operating Position	Vertical
Maximum Overall Length	330.2 mm (13.0 in.)
Maximum Diameter	101.6 mm (4.0 in.)
Weight	3.63 kg (8.0 lb)

CW Oscillator — Continuous Service

Typical Operation — 2.45 GHz

DC Anode Voltage	13 kV
Anode Current	3.3 A
Maximum Anode Dissipation	13.5 kW
AC Filament Voltage	0.3 V
Filament Current	3 A
DC Electromagnet Current	4.8 A
Useful Power Output	30 kW
Efficiency	72 %
Frequency	2.45 ± .020 GHz

Thermal

Ceramic Insulator Temperature	135 max. °C
Metal Surface Temperature	204 max. °C

Air Cooling:

Output Dome Cooling: 0.012 meters^3/sec. (25 cfm) at 100 mm (4 inches) of water.

Filament Terminal Cooling: 0.0048 meters^3/sec. (10 cfm) at 203 mm (8 inches) of water.

Liquid Cooling:

Nominal Water Flow (12 kW anode dissipation)	9.0 1/min.(5.0 gpm)
Pressure Drop at Water Flow	1.9 bars (28 psi)
Maximum Outlet Water Temperature	70 °C
Maximum Inlet Water Pressure (Gauge)	6.9 bars (100 psi)

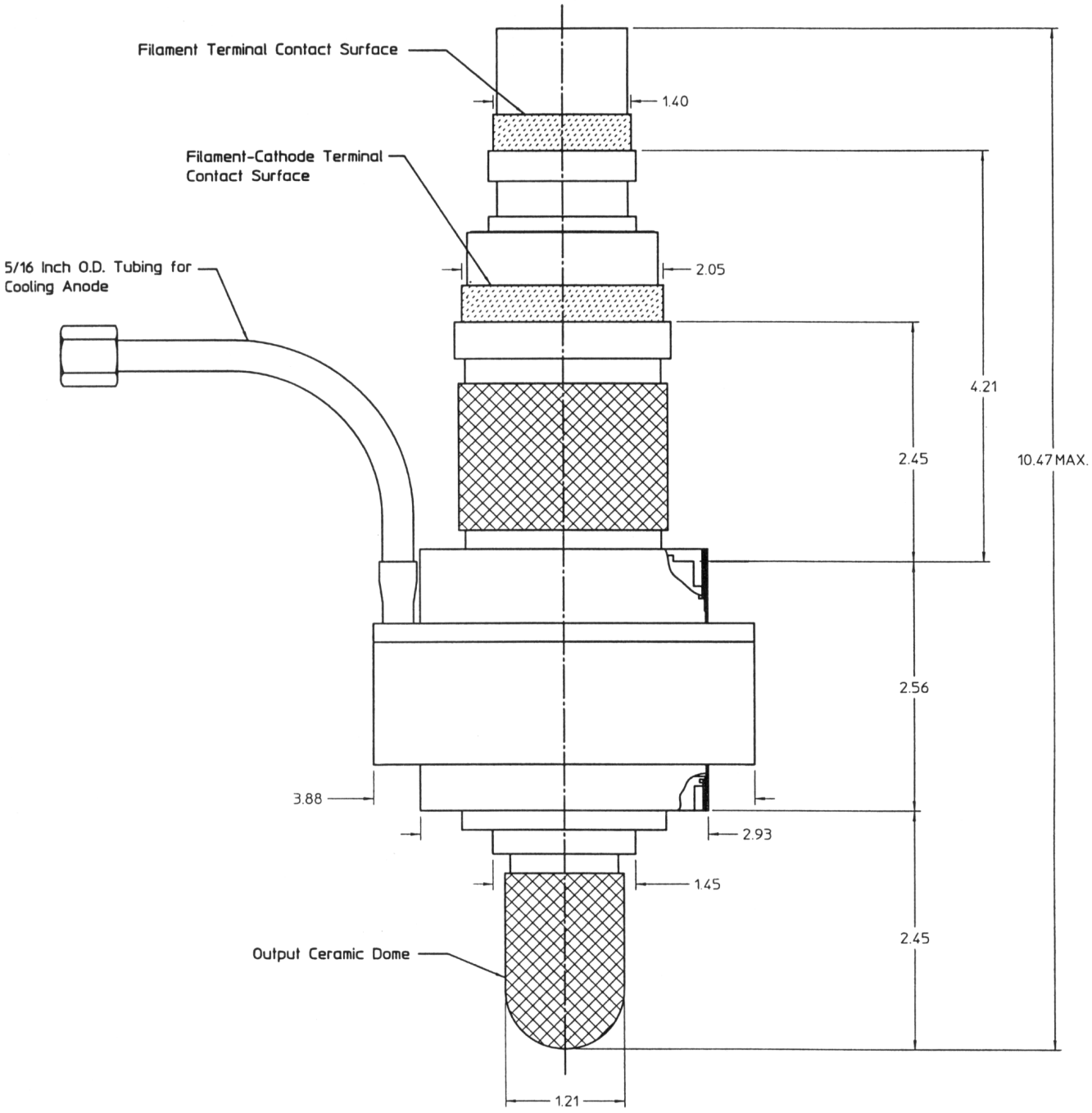
Maximum and Minimum Ratings

These ratings can be used simultaneously and no individual rating should be exceeded.

Heater Current (Stand by)	60 A max. 54 A min.
Heater Surge Current	100 A
Anode Voltage	13.5 kV max.
Anode Current	3.6 A max.
VSWR at Output of Waveguide Transition	1.5:1 max.

ISO 9001

BURLE



Dimensions are in inches.

Dimensional Outline