



EITEL-McCULLOUGH, INC.
SAN CARLOS, CALIFORNIA

1K75CLA

REFLEX

KLYSTRON

TYPICAL PERFORMANCE

ELECTRICAL PERFORMANCE

Frequency Setting	- -	4,300 to 4.375 Gc
Power Output	- - -	240 mW
Electronic Tuning Range (3 db bandwidth)	-	50 Mc
Resonator Voltage	- -	550 Vdc
Cathode Current	- - -	38 mA
Repeller Voltage	- -	-93 Vdc
Modulation Sensitivity	-	1.0 to 2.0 Mc/V
Heater Voltage	- - -	6.3 V(ac or dc) $\pm 5\%$
Heater Current	- - -	1.5 A max
Mode	- - - -	4-3/4
VSWR of Load	- - -	1.05:1
Temperature Coefficient	-	± 150 Kc/ $^{\circ}$ C max
Warm-up Time	- - -	120 seconds max
	- - - -	

*MAXIMUM RATINGS

Resonator Voltage	- - - -	900 Vdc
Cathode Current	- - - -	85 mA
Repeller Voltage (negative with respect to the cathode)	- - - -	-50 to -500 Vdc

*Note: Damage to the tube may occur if the maximum ratings are exceeded.

MECHANICAL

Operating Position	- - - -	Any
Electrical Connection	- - -	Flexible Leads
RF Output Coupling	- - - -	1/2 height, RG 49 A/U waveguide flange
Cooling Required	- - - -	Conduction
Net Weight	- - - -	10 ounces
Shipping Weight (approximate)	- - - -	4 Pounds

ENVIRONMENTAL PERFORMANCE

Temperature Range	- - - -	-55 to +90 $^{\circ}$ C
Altitude	- - - -	50,000 ft. max
Vibration	- - - -	10 G, 20-2000 cps
Shock	- - - -	30 G, 11 ms

OUTLINE DIMENSIONS

Height	- - - -	2-1/32 inches
Width	- - - -	2-49/64 inches
Length	- - - -	1-9/16 inches



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APPLICATION NOTES

NOTE: All voltages referred to the cathode.

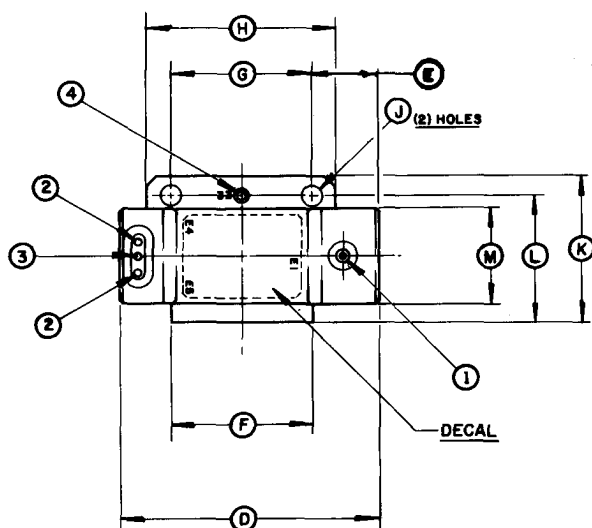
COOLING: At sea level, these tubes will not require forced-air cooling when operated at their maximum rated dissipation with heat-sink and ambient temperatures less than 125° Centigrade. The mounting flange or waveguide flange will normally provide the heat sink connection required for conduction cooling.

If an insulator is used between the tube and waveguide or chassis, forced air cooling may be required to maintain the ceramic-to-metal seal temperatures below the maximum rating of 175° Centigrade.

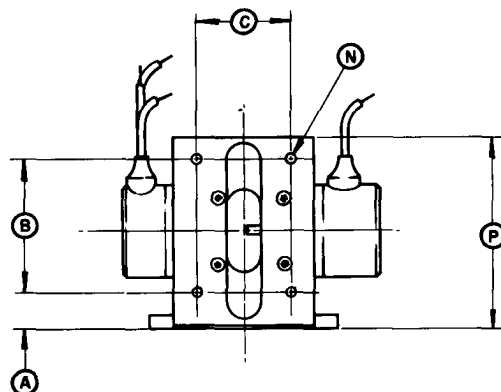
RESONATOR: The resonator of the 1K75C series tube is integral with the body of the tube. For this reason, it is often convenient to operate the resonator at chassis potential, with the repeller and cathode at appropriate negative potentials.

CATHODE: The heater voltage should be maintained with $\pm 5\%$ of the rated value of 6.3 volts if variations in performance are to be minimized and best tube life obtained.

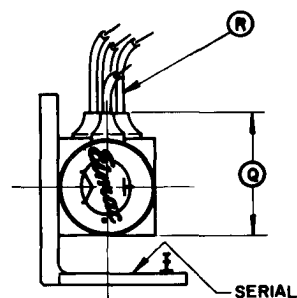
The heater and cathode of these tubes are not internally connected and the heater-to-cathode voltage should not exceed ± 45 volts. When the resonator of this tube is operated at chassis potential, the heater transformer must be insulated for the cathode-to-resonator voltage.



DIMENSIONS IN INCHES			
DIMENSIONAL DATA			
REF.	MIN.	MAX.	NOM.
A	.365	.385	
B	1.396	1.416	
C	.990	1.010	
D		2.730	
E		.684	
F		1.520	
G	1.495	1.505	
H		1.968	
J	.215 DIA.	.225 DIA.	
K		1.593	
L	1.339	1.349	
M		1.010	
N	#6-32 UNC-2B (4) HOLES		
P		2.030	
Q		1.345	
R	16" MIN. INSULATION		

**CONNECTIONS:**

1. REPELLER - RED
2. HEATER - WHITE
3. CATHODE - BLACK
4. RESONATOR - TERMINAL

**FINISH:**

- TUBE BODY - PAINTED
TUBE FLANGE - GOLD PLATED