

DIAMETER 3½" NOMINAL

**90E04F**

# Oscilloscope Tube

**FLAT FACED BULB**

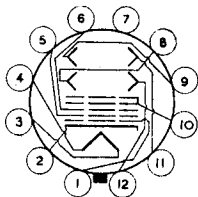
ELECTROSTATIC FOCUS. ELECTROSTATIC DEFLECTION

**90E04F**

**GENERAL :**

Heater: Voltage . . . . .	4.0 . . . . .	a.c. or d.c. volts.
Current . . . . .	1.0 . . . . .	amp.
Direct Inter-electrode Capacitances.		
Modulator to all other electrodes . . . . .	25μmf.	
Each X Plate to all other electrodes . . . . .	25μmf.	
Each Y Plate to all other electrodes . . . . .	25μmf.	
One X to one Y Deflector Plate . . . . .	6μmf.	
Cathode to all other electrodes . . . . .	15μmf.	
Screen :		
Fluorescence . . . . .	Orange.	
Afterglow . . . . .	Orange.	
Persistence of Afterglow . . . . .	Long.	
(10 sec. min./100 sec. max. for 1% initial brightness).		
Focusing Method . . . . .	Electrostatic.	
Deflecting Method . . . . .	Electrostatic.	
Overall Length . . . . .	332 ± 8 mm.	
Greatest Diameter of Bulb . . . . .	88.5 mm.	
Minimum Useful Screen Diameter . . . . .	75 mm.	
Mounting Position . . . . .	Any.	
Base . . . . .	B.12.D.	

- Pin 1—Modulator.
- Pin 2—Cathode.
- Pin 3—Heater.
- Pin 4—Heater.
- Pin 5—Anode 1.
- Pin 6—Anode 2.
- Pin 7—No connection.



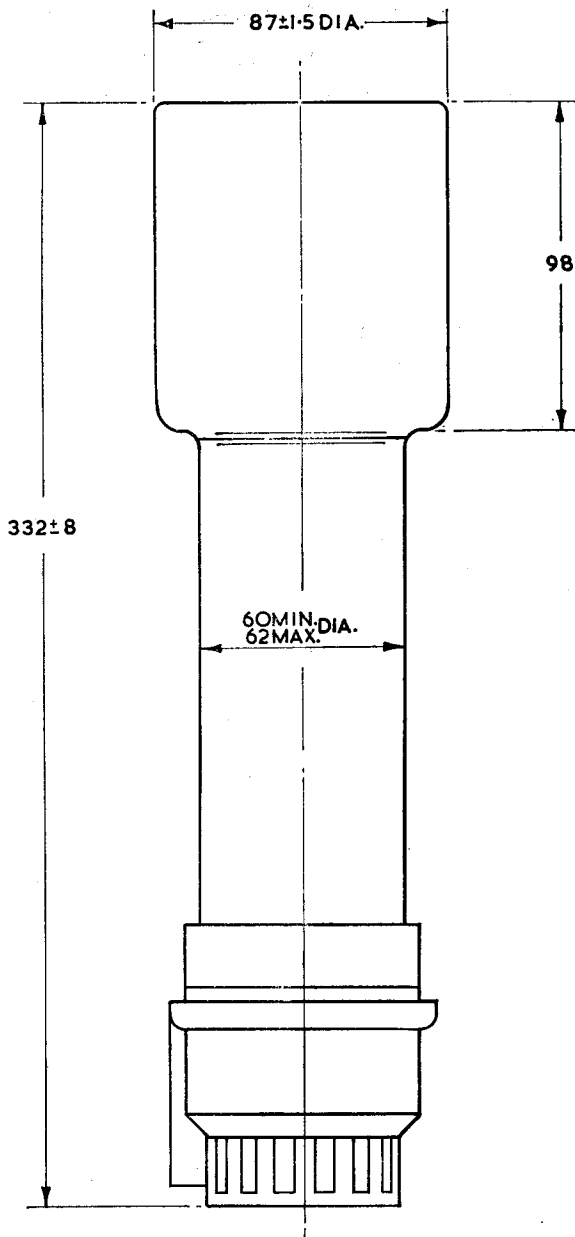
- Pin 8—Y2.
- Pin 9—X2.
- Pin 10—Anode 3 and Internal Conductive coating.
- Pin 11—X1.
- Pin 12—Y1.

**Typical Operating Conditions :**

Anode 1 . . . . .	2000 volts.	2000 volts.
Anode 2 . . . . .	700 volts.	350 volts.
Anode 3 (5000v. max.) . . . . .	4000 volts.	2000 volts.
Modulator volts for cut-off . . . . .	-40 to -80 volts.	-40 to -80 volts.

<b>Deflection Sensitivity :</b>	mm/volt.	mm/volt.
X Plate . . . . .	0.085	0.170
Y Plate . . . . .	0.190	0.380

- Note 2.** The angle between the trace produced by X1 and X2 and the trace produced by Y1 and Y2 is 90° ± 3°.
- Note 3.** The undeflected focused spot will fall within a circle having a 6 mm. radius concentric with the centre of the tube face.



ALL SIZES IN MILLIMETRES.

**Note 1.** When viewing the screen with the tube positioned such that the base spigot is uppermost, a positive voltage applied to the terminal X1 will deflect the spot to the left and a positive voltage applied to the terminal Y1 will deflect the spot upwards.