**Diameter 3\(\frac{3}{4}\) Nominal**

**90EG4P**

**Oscilloscope Tube**

**Electrostatic Focus.  Electrostatic Deflection**

**Data**

**General:**

Heater: Voltage .... 4.0 .... a.c. or d.c. volts.
Current .... 1.0 .... amp.

Direct Inter-electrode Capacitances:

- Modulator to all other electrodes .... 25\(\mu\)F.
- Each X Plate to all other electrodes .... 25\(\mu\)F.
- Each Y Plate to all other electrodes .... 25\(\mu\)F.
- One X to one Y Deflector Plate .... 6\(\mu\)F.
- Cathode to all other electrodes .... 15\(\mu\)F.

**Screen:**

Fluorescence .... Green.
Persistence .... Short.

(10m sec. min./100m sec. max. for 1% initial brightness).

**Focusing Method** .... Electrostatic.
**Deflecting Method** .... Electrostatic.

**Overall Length** .... 332 ± 8 mm.
**Greatest Diameter of Bulb** .... 92 mm.
**Minimum Useful Screen Diameter** .... 70 mm.

**Mounting Position** .... Any.
**Anode Cap** .... Recessed Small Ball.
**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.
Cap—Anode 4 P.D.A.

**Typical Operating Conditions:**

- Anode 1 .... 2000 volts.
- Anode 2 .... 380 volts.
- Anode 3 (4000v. max.) .... 2000 volts.
- Anode 4 Post Deflector Accelerator (6000v. max.) .... 4000 volts.
- Modulator volts for cut-off .... −40 to −80 volts.

**Deflection Sensitivity:**

<table>
<thead>
<tr>
<th>Plate</th>
<th>Sensitivity (mm/volt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>0.140</td>
</tr>
<tr>
<td>Y</td>
<td>0.320</td>
</tr>
</tbody>
</table>

**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.
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.