FERRANTI

FLYING SPOT SCANNER TUBE

An indirectly heated Triode Tube with a 6in. diameter metal backed screen and electrostatic deflection. This tube is suitable as a replacement for earlier types S6/30A or 6/3A.

FOCUS ... Magnetic.
DEFLECTION ... Electrostatic.
SCREEN
Phosphor ... Type 'A'.
Fluorescence ... Green.
Persistence ... Ultra-short.

For further details, refer to the relevant phosphor characteristics at the front of this section of the handbook.

PHYSICAL DETAILS.
Base ... B12A (Duodecal).
Anode Cap ... CT8 Cavity Type.*
Deflector Plate Caps ... Type CT2
Max. Overall Length ... 495 mm.
Useful Screen Area ... 127 mm. dia. (flat face).
Neck Diameter ... 37±1 mm.
Mounting Position ... Any.

BASE CONNECTIONS.
Pin 1—Heater. ... Pin 7—No Connection.
Pin 2—Grid. ... Pin 8—No Pin.
Pin 3—No Pin. ... Pin 9—No Pin.
Pin 4—No Pin. ... Pin 10—No Connection.
Pin 5—No Pin. ... Pin 11—Cathode.
Pin 6—No Connection. ... Pin 12—Heater.
Side Contact—Anode.

HEATER.
Heater Voltage ... 6.3 volts.
Heater Current ... 0.3 amp.

RATINGS.
Max. Anode Voltage ... 25 kV.
Max. Vg-k ... 100 volts.
Max. Beam Current ... 200 µA.

CHARACTERISTICS.
Vg for visual cut off ... \( V_g/120 \)
Av. Mod. Drive for 50 µA Beam Current ... 33 volts.
Deflection Sensitivity :=
'X' plates ... \( 500/V_a \text{ mm./V.} \)
'Y' plates ... \( 450/V_a \text{ mm./V.} \)

TYPICAL OPERATION.
Heater Voltage ... 6.3 volts.
Anode Voltage ... 20 kV.
Vg for visual cut off ... -170 volts.
Focus Coil ... 900 ampere turns (approx.).
Screen Resolution ... > 100 lines per cm.
Normal Peak Beam Current ... 150 µA.

X-RAY WARNING.
When operated at high anode voltage shielding may be required to protect against harmful X-Ray radiation, which could cause possible injury from prolonged exposure.

CAPACITANCES.
\( C_{x} = \frac{x}{y} y \) ... 1.0 pF.
\( C_{z} = \frac{z}{y} y \) ... 5.8 pF.
\( C_{x+y} = \frac{x+y}{z} \) ... 1.0 pF.
\( C_{y+z} = \frac{y+z}{x} \) ... 0.9 pF.
\( C_{x+y+z} = \frac{x+y+z}{x} \) ... 4.8 pF.
\( C_{y+z}=\frac{y+z}{x} \) ... 4.3 pF.

* A suitable adaptor to CT2 can be supplied where the tube is required to replace an earlier type.
† The grid should never be positive with respect to the cathode.
‡ Positioned so that the gap is 100 mm. in front of the modulator.

FERRANTI LIMITED, GEM MILL, CHADDERTON, OLDHAM, LANCs.