Ferranti

CATHODE RAY TUBES

6-inch diameter Triode Tubes for Magnetic deflection and focus.
Types 6/22AM and 6/22QM are designed for use in general Flying Spot Scanner applications.
Type 6/22PM is for use in recording high resolution images on blue sensitive film stock.
All Types have optically flat faces with ground internal and external surfaces.
The tube face is of non-solarising glass.

FOCUS ... Magnetic.
DEFLECTION ... Magnetic.

SCREENS.

Phosphor ... Type 'A' Type 'P' Type 'Q'
Fluorescence Green Blue Blue/Violet
Persistence Ultra-short Ultra-short Killed
All types have metal back screens.

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 ... CT.B (Cavity Type).
Max. Overall Length ... 495 mm.
Max. Diameter ... 163 mm.
Nom. Neck Diameter ... 37 mm.
Useful Screen Area ... 127 mm. dia.
For other dimensions see drawing.

BASE CONNECTIONS.

Pin 1—Heater.
Pin 2—Grid.
Pin 3—No pin.
Pin 4—No pin.
Pin 5—No pin.
Pin 6—Not connected.
Pin 7—Not connected.
Pin 8—No Pin.
Pin 9—No pin.
Pin 10—Not connected.
Pin 11—Cathode.
Pin 12—Heater.
Side Contact—Anode.

HEATER.

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

RATINGS.

*Max. Anode Voltage ... 30 kV.
†Nom. Vg for visual cut off ... Vs/125
Max. Vhk (Heater Negative) ... 200 volts.
Max. Vhp (Heater Positive) ... 200 volts.

TYPICAL OPERATION.

Anode Voltage ... 25 kV.
Vg for visual cut off ... -200 volts.
Grid Drive for fG = 100μA ... 37 volts.
Screen Resolution at 50 f.p.s. ... 1000 lines.
†Light Output ('P' Screen) ... 300 e.l.c.
§Focus Coil ... 570 ampere turns
(prox).

CAPACITANCE.

Ck—all ... <8 pF.
Cg—all ... <8 pF.

*Recommended operating range—17 to 25 kV.
†The grid should never be positive with respect to the cathode.
§A suitable coil is a soleniod of approx. 16,000 turns of 38 s.w.g.
wire, positioned with the gap approx. 150 mm. in front of the modulator. Ferranti Type FC.1 (Pt. No. 38/13300) is available.

X-RAY WARNING.

When operated at an anode voltage in excess of 16kV, shielding may be required to protect against harmful X-ray radiation which could cause possible injury from prolonged exposure.
TYPICAL ANODE CURRENT GRID/VOLTAGE CHARACTERISTICS

ANODE CURRENT (µA)

GRID VOLTAGE

-200 -150 -100 -50

0 50 100 150 200

V_A = 25kV

20kV

15kV