

FERRANTI

VOLTAGE TRANSIENT OSCILLOGRAPH TUBE

An indirectly heated Triode Tube specially designed for Transient Oscillography. The Fluorescent spot of high actinic value and exceptional brightness makes the tube particularly suitable for photographic recording. The useful screen area is flat and approx. 5 inches in diameter.

FOCUS	...	...	Magnetic.
DEFLECTION	...	...	Electrostatic.
SCREEN	...	...	Metal Backed.
Phosphor	...	...	Type 'P'.
Fluorescence	...	...	Blue.
Persistence	...	...	Ultra Short.

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

PHYSICAL DETAILS.

Base	...	...	International Octal.
Anode Cap	...	...	Type CT8 (Cavity Type.)
Deflector Plate Caps	...	...	Type CT2
Max. Overall Length	...	...	525 mm.
Useful Screen Area	...	...	127 mm. dia. (flat face).
Neck Diameter	...	...	37 ± 1 mm.
Mounting Position	...	...	Any.

For other dimensions see drawing.

BASE CONNECTIONS.

Pin 1—No Connection.	Pin 5—Grid.
Pin 2—Heater.	Pin 6—No Pin.
Pin 3—No Pin.	Pin 7—Heater.
Pin 4—No Pin.	Pin 8—Cathode.

Anode and deflector plates connected to side caps.

HEATER.

Heater Voltage	...	...	4.0 volts AC. or DC.
Heater Current	...	...	1.0 amp.

RATINGS.

Max. Anode Voltage	...	...	25 kV.
Max. V_{h-k}	...	...	100 volts.
Max. Pulsed Beam Current	...	...	500 μ A.

CHARACTERISTICS.

*Nom. V_g for visual cut off	...	...	$V_a/120$
Deflection Sensitivity :—			
'Y' plates	...	...	$450/V_a$ mm./V.
'X' plates	...	...	$500/V_a$ mm./V.

TYPICAL OPERATION.

Anode Voltage	...	...	20 kV.
Beam Current	...	...	75 μ A.
V_g for Cut-off	...	...	165 volts.
†Focus Coil	...	...	900 ampere turns.
Writing Speeds for Single Sweep Photography using Standard X-ray Film :			
Image Ratio	...	...	1 : 3.
Lens Aperture	...	...	f1.
Writing Speed	...	...	> 500,000 spot diameters per microsecond.

CAPACITANCES.

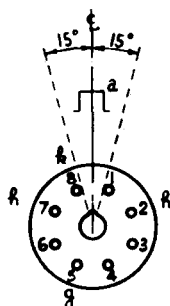
C_{k-all}	...	...	6.0 pF.
C_{g-all}	...	...	6.2 pF.
C_{x1-x2}	...	...	1.0 pF.
C_{y1-y2}	...	...	0.9 pF.
C_{x1-all}	...	...	4.8 pF.
C_{x2-all}	...	...	4.8 pF.
C_{y1-all}	...	...	4.3 pF.
C_{y2-all}	...	...	4.3 pF.
$C_{x1x2-y1y2}$	...	...	1.0 pF.

This tube was formerly designated Type 06/3P.

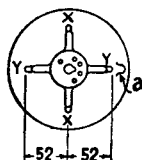
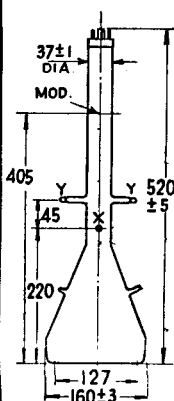
*The grid should never be allowed to become positive with respect to the Cathode.

†The recommended focus coil is a shrouded solenoid of approx. 16,000 turns of 38 S.W.G. wire. The power unit required for energising this coil should be capable of supplying 40-60 mA. at 150-200 volts.

6/32PM



Base
Connections
Underside View
of Base



All dimensions
shown are in
millimetres.

