FERRANTI

MONITOR TUBE

14/03TB

A 14in. diagonal Rectangular Tube with a metal backed screen and external conductive coating. Designed for use in Television Monitoring Equipment.

FOCUS	Low Voltage Electrostatic.	
DEFLECTION	Magnetic.	
SCREEN	Metal backed.	
Phosphor	Type 'T'	
Fluorescence	White.	
Persistence	Short.	

For further details, refer to Screen Type 'T' phosphor characteristics at the front of this section of the handbook. This tube can be supplied with other screen phosphors.

PHYSICAL DETAILS.

Base	B12A (Duodecal).
Anode Cap	CT8 (Cavity Type.)
Max. Overall Length	420 mm.
Nom. neck diameter	37 mm.
For other dimensions see drawing.	
Mounting Position	Any

These tubes have an external conductive coating which may be used for E.H.T. smoothing.

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—1st Anode.
Pin 5—No Pin.	Pin 11—Cathode.
Pin 6—3rd Anode.	Pin 12—Heater.
Side Contact—2nd Anode, 4th Anode.	

HEATER.

*Heater Voltage	6·3 volts.
Heater Current	0·3 amp.

RATINGS.

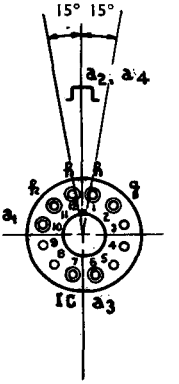
Max. A_1 Voltage	500 volts.
Max. A_2+A_4 voltage	15 kV.
Max. Pos. A_3 voltage	+500 volts.
Max. Neg. A_3 voltage	−500 volts.
Min. A_1 voltage	200 volts.
Min. A_2+A_4 voltage	8 kV.
Max. V_{h-k}	200 volts.
Max. R_{g-k}	1·5 MΩ
Max. R_{h-k}	1·0 MΩ

TYPICAL OPERATION.

1st Anode Voltage	300 volts.
2nd and 4th Anode voltage ...	12 kV.
**3rd Anode voltage for focus ...	−300 to +300 volts.
†V_g for visual cut off	−30 to −70 volts.

VAPACITANCES.

C_{k-all}	<8 pF.
C_{g-all}	<8 pF.
$C_{a-ext.\ coating}$	1100 pF. (approx.).



Base Connections

Underside View of Base

*When used for series operation, the surge heater voltage should not exceed 9·5 volts r.m.s. and a current limiting device should be incorporated in the circuit to limit switching surge.

**The point of optimum focus lies between these values.

†The grid should never be positive with respect to the cathode, except during the period immediately after switching off, when it may be allowed to rise to + 1 volt.

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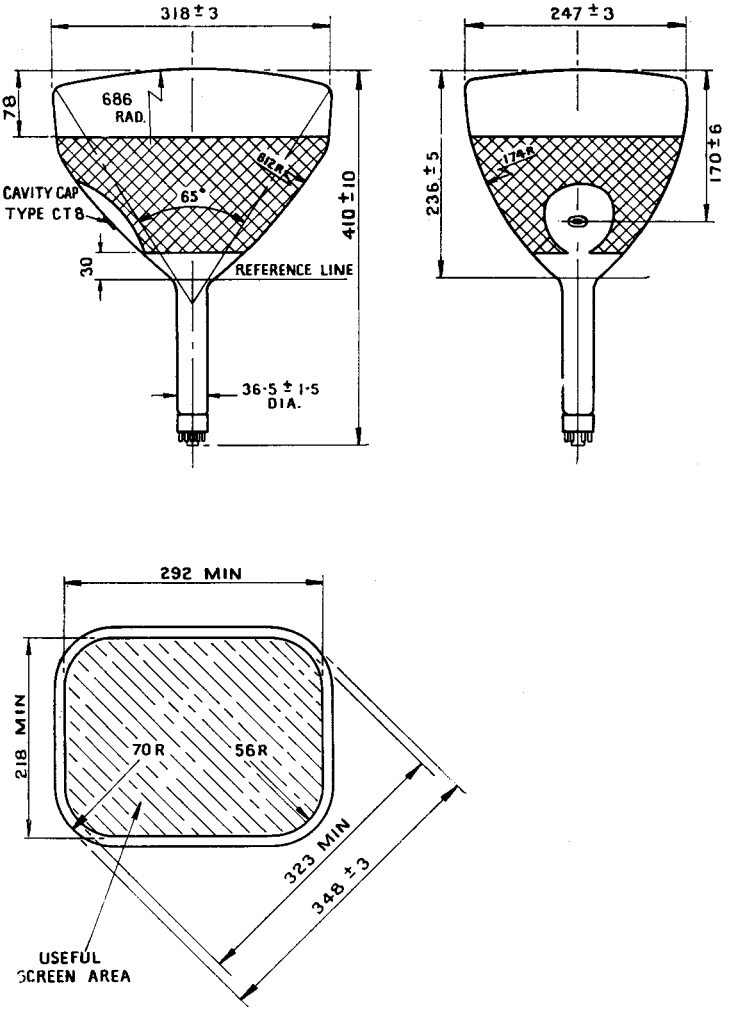
THIRD ANGLE PROJECTION



FERRANTI

TELEVISION MONITOR TUBE

14/04TB

A 14in. diagonal Rectangular Tube with a metal backed screen and external conductive coating. Designed for use in Television Monitoring Equipment.

FOCUS	Magnetic.
DEFLECTION	Magnetic.
SCREEN	Metal Backed.
Phosphor	Type 'T'.
Fluorescence	White.
Persistence	Short.

For further details, refer to Screen Type 'T' phosphor characteristics at the front of this section of the handbook. This tube can also be supplied with other screen phosphors.

PHYSICAL DETAILS.

Base	B12A (Duodecal).
Anode Cap	CT8 (Cavity Type).
Max. Overall Length	457 mm.
Nom. Neck Diameter	37 mm.

For other dimensions see drawing.

Mounting Position	Any.

This tube has an external conductive coating which may be used for E.H.T. smoothing.

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—1st Anode.
Pin 5—No Pin.	Pin 11—Cathode.
Pin 6—No Connection.	Pin 12—Heater.

Side Contact—2nd Anode.

HEATER.

*Heater Voltage	6·3 volts.
Heater Current	0·3 amp.

RATINGS.

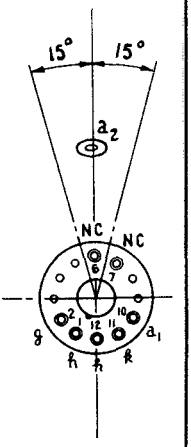
Max. A_1 Voltage	500 volts.
†Max. A_2 Voltage	16 kV.
Min. A_1 Voltage	200 volts.
Min. A_2 Voltage	8 kV.
Max. V_{h-k}	200 volts.
Max. R_{g-k}	1·5 MΩ
‡Max. R_{h-k}	1·0 MΩ
Max. A_1 Supply Impedance ...	1·5 MΩ

TYPICAL OPERATION.

1st Anode Voltage	300 volts.
2nd and 4th Anode Voltage ...	14 kV.
§Vg for visual cut off	−30 to −70 volts.
Focus	See Note **

CAPACITANCES.

C_{k-all}	<8 pF.
C_{g-all}	<8 pF.
$C_{a-ext.\ coating}$	1100 pF. (approx.).



Base Connections

Underside View of Base

*When used for series operation, the surge heater voltage should not exceed 9·5 volts r.m.s. and a current limiting device should be incorporated in the circuit to limit switching surge.

†The product of V_{a2} and I_{a2} must not exceed 6 watts average value for the whole screen.

‡When the heater supply is from a separate transformer. When the heater is in a series chain or earthed the 50 c/s. impedance between earth and cathode (Z_k) is 100kΩ (max).

**The recommended centre of the magnetic length of the focus unit should be approx. 100 mm. from the Reference Line.

§The grid should never be positive with respect to the cathode, except during the period immediately after switching off, when it may be allowed to rise to + 1 volt.

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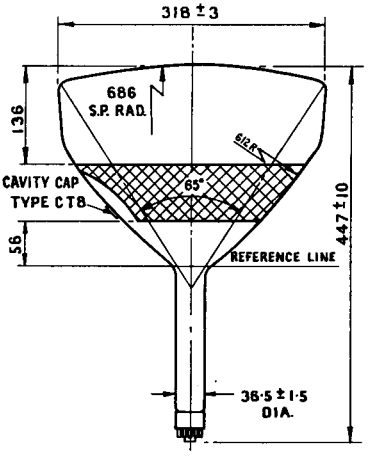

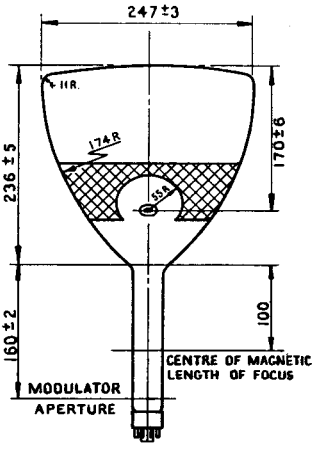

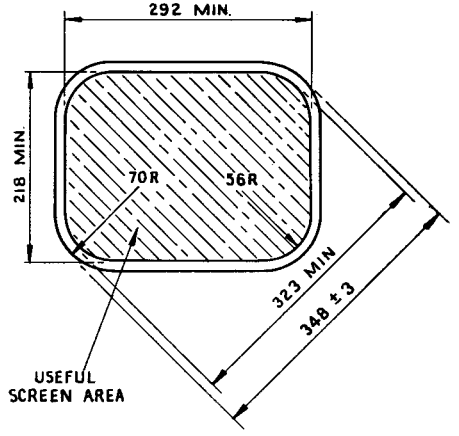

All dimensions are in millimetres