Ferranti

RADAR TUBES

12/48HM

12/48L3M

12in. diameter flat faced Radar Tubes designed for fine symbol presentation, where high resolution is of primary importance. Phosphor Type 'L3' enables flicker free images to be produced at repetition frequencies down to 10 cycles per second, but the persistence of moving targets is curtailed in comparison with Type 'H' or 'L' Phosphor.

FOCUS	Magnetic
DEFLECTION	Magnetic

SCREEN.

	12/48HM	12/48L3M
Phosphor	*Type 'H'	*Type 'L3'
Fluorescence	Orange	Orange
Afterglow	Orange	Orange
Persistence	very long	long

Both types have metal backed 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	CT8 (Cavity Type)
Max. Overall Length	640 mm. (25·20")
Min Useful Screen Area ...	250 mm. (9·84") dia.
Nom. Neck diameter ...	35 mm .(1·378")

For other dimensions, see drawing.

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 Cap—2nd Anode.

HEATER.

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

RATINGS.

Max. 1st Anode Voltage ...	600 volts
Min 1st Anode Voltage ...	250 volts
Max. 2nd Anode Voltage ...	15·5 kV
Min. 2nd Anode Voltage ...	9·0 kV
Max. Cathode Current ...	150 μA
Max. V_{h-k}	200 volts
Max. R_{h-k}	1·0 MΩ
Max. R_{g-k}	1·5 MΩ

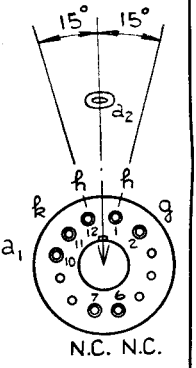
TYPICAL OPERATING CONDITIONS.

1st Anode Voltage	300 volts
2nd Anode Voltage	15 kV
Vg for visual cut-off	−90 volts
Av. Grid Drive for I_B=50 μA.	30 volts
Line width at I_B=50 μA. ...	0·25 mm

The Focus coil should be positioned so that the centre of the gap is approx. 220 mm from the reference line (36 mm Ring Gauge Position).

CAPACITANCES.

C_{k-all}	<8·0 pF
C_{g-all}	<8·0 pF



Base Connections Underside View of Base

*This phosphor is liable to burn even at low values of beam current, if operated with a spot which is stationary or slow moving.

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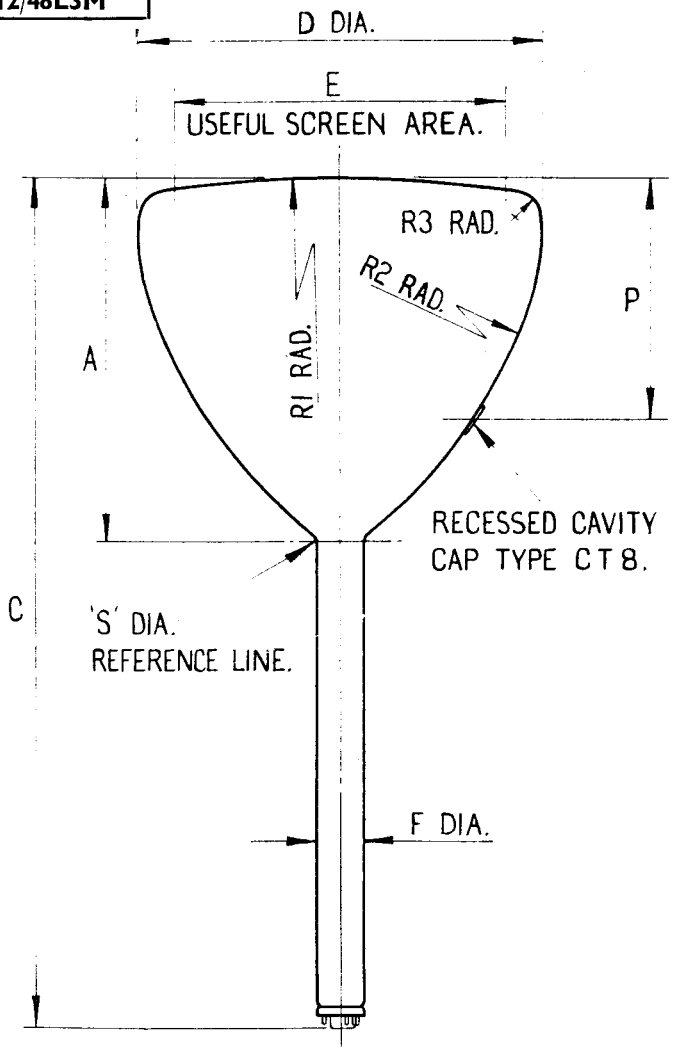

DIM.	INS.	mm.	DIM.	INS.	mm.
A	10·710±·138	272 ± 3·5	P	7·087±·197	180 ± 5
C	25·040±·157	636 ± 4	R1	39·370	1000
D	12·000±·079	305 ± 2	R2	16·772	426
E	9·842	250 MIN.	R3	·748±·079	19 ±2
F	$1{\cdot}378^{+\cdot020}_{-\cdot039}$	$35^{+5}_{-1\cdot0}$	S	1·417	36