

FLYING SPOT SCANNER TUBES with metal-backed screen

SCREEN

For screen properties please refer to front of this section

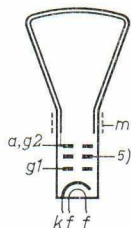
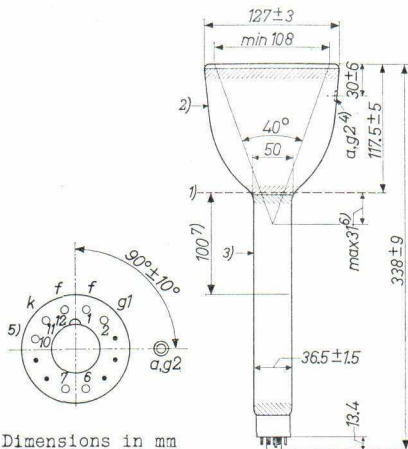
Useful screen diameter min. 108 mm

HEATING

Indirect by A.C. or D.C.; series or parallel supply

Heater voltage $V_f = 6.3 \text{ V}$

Heater current $I_f = 300 \text{ mA}$



Dimensions in mm

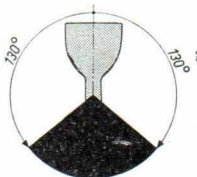
Base: DUODECAL 7 p.

- 1) Reference line, determined by the plane of the upper edge of the reference line gauge when the gauge is resting on the cone
- 2) Insulating outer coating; should not be in close proximity to any metal part
- 3) Conductive outer coating; to be grounded
- 4) Recessed cavity contact
- 5) Spark trap; to be grounded
- 6) The distance between the deflection centre and the reference line should not exceed 31 mm
- 7) Distance between the centre of the magnetic length of the focusing unit and the reference line

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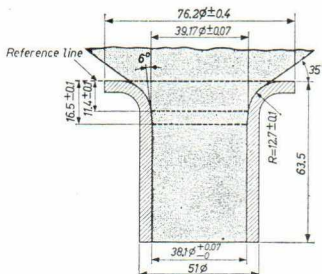
PHILIPS

MOUNTING POSITION. Any, except with screen downwards and the axis of the tube making an angle of less than 50° with the vertical



REFERENCE LINE GAUGE

Dimensions in mm



CAPACITANCES

Grid No.1 to all other electrodes	C_{g1}	=	6.5 pF
Cathode to all other electrodes	C_k	=	6.5 pF
Anode and grid No.2 to outer conductive coating	C_{a-m}	=	250 to 450 pF

FOCUSING AND DEFLECTION Magnetic

Focusing coil Type AT 1997

OPERATING CHARACTERISTICS

Anode and grid No.2 voltage	$V_{a,g2}$	=	25 kV
Beam current	I_b	=	50 to 150 μA
Negative grid No.1 cut-off voltage	$-V_{g1}(I_b=0)$	=	50 to 100 V
Resolution at centre of screen better than 1000 lines ¹⁾			

REMARKS

Measures should be taken for the beam current to be switched off immediately when one of the time-base circuits becomes defective. An X-ray radiation shielding with an equivalent lead thickness of 0.5 mm is required to protect the observer

¹⁾ With focusing coil AT1997

LIMITING VALUES (Design centre limits)

Anode and grid No.2 voltage	$V_{a,g2}$	= max. 27 kV = min. 20 kV
Grid No.1 voltage		
negative value	$-V_{g1}$	= max. 200 V
positive value	$+V_{g1}$	= max. 0 V
peak positive value	$+V_{g1p}$	= max. 2 V
Cathode current	I_k	= max. 150 μ A
Voltage between heater and cathode ¹⁾		
cathode negative	V_{kf} (k neg.)	= max. 125 V
cathode positive	V_{kf} (k pos.)	= max. 200 V
peak value, cathode positive	V_{kfp} (k pos.)	= max. 410 V ²⁾

MAX. CIRCUIT VALUES

External resistance between heater and cathode	R_{kf}	= max. 1 M Ω
External grid No.1 resistance	R_{g1}	= max. 1.5 M Ω
External grid No.1 impedance at a frequency of 50 c/s	$Z_{g1}(f=50 \text{ c/s})$	= max. 0.5 M Ω

¹⁾ In order to avoid excessive hum, the A.C.component of the heater to cathode voltage should be as low as possible and should not exceed 20 V R.M.S.

²⁾ During a heating-up period not exceeding 45 sec.

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PHILIPS

