

RADAR CATHODE-RAY PROJECTION TUBE

SCREEN

For screen properties please refer to front of this section

Useful screen diameter = min. 55 mm

HEATING

Indirect by A.C. or D.C.

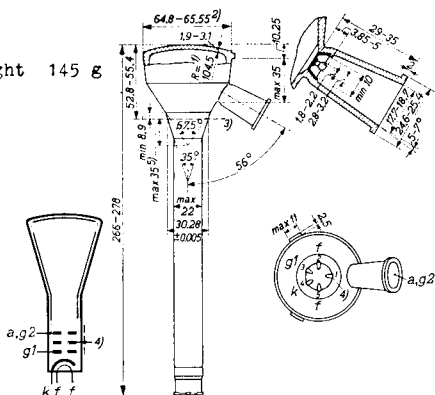
Heater voltage $V_f = 6.3 \text{ V}$

Heater current $I_f = 0.3 \text{ A}$

Dimensions in mm

Base: V

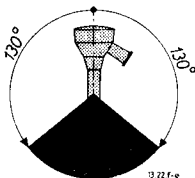
Net weight 145 g



The tolerance of the position of the base with respect to the tube is $\pm 10^0$

- 1) Inner radius of curvature of the face plate
The deviation of the centre of the outer radius of curvature with respect to the centre line of the neck is max. 2 mm
- 2) Eccentricity of the face plate with respect to the centre line of the neck is max. 0.9 mm
- 3) Reference line, determined by the diameter of 30.28 ± 0.005 mm
- 4) Spark trap and outer coating. This connection must be earthed
- 5) The distance from the deflection centre to the reference line should not exceed 35 mm

MOUNTING POSITION



CAPACITANCES

Grid No.1 to all other electrodes	C_{g1}	=	6.3 pF
Cathode to all other electrodes	C_k	=	6.3 pF
Anode and grid No.2 to outer conductive coating	$C_{a,g2-m}$	=	450 pF

FOCUSING Magnetic

Focusing coil with iron casing

Number of ampere-turns at an
anode and grid No.2 voltage
of 25 kV 865 ¹⁾

Air gap 11 to 13 mm

Distance from the centre of the
the air gap to the reference
line 83 to 87 mm

Inner diameter of the inner
bush 27.5 mm

For centring it is necessary that the focusing coil
can be tilted over 3° to either side

DEFLECTION Magnetic

UNDEFLECTED SPOT ECCENTRICITY max. 5 mm

OPERATING CHARACTERISTICS

Anode and grid No.2 voltage $V_{a,g2}$ = 25 kV

Negative grid No.1 voltage
for cut-off $-V_{g1}(I_l=0)$ = 50 to 90 V

Peak beam current (max. dura-
tion 10 μ sec) $I_l(T=\text{max.}10 \mu\text{sec})$ = 1000 μ A

¹⁾ Without saturation of the iron casing
In order to reduce the influence of voltage fluctuations
it is, however, advisable to saturate the iron to such
an extent that the required number of ampere-turns
becomes about 10 % higher

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. When the tube is used in an optical box, the screening by the box will in general be sufficient

LIMITING VALUES (Design centre limits, unless otherwise specified)

Anode and grid No.2 voltage (absolute limit)	V_a	= max. 27 kV ¹⁾
Grid No.1 voltage		
negative value	$-V_{g1}$	= max. 200 V ²⁾
positive value	$+V_{g1}$	= max. 0 V
peak positive value	$+V_{g1 p}$	= max. 2 V
External grid No.1 resistance	R_{g1}	= max. 1.5 M Ω
External resistance between heater and cathode	R_{kf}	= max. 20 k Ω
Voltage between heater and cathode	V_{kf}	= max. 125 V ²⁾
Current	$I_{a, g2}$	= max. 200 μ A

¹⁾ The total charge of the filter capacitors in the supply unit should not exceed 130 μ C

²⁾ During the operation of the security circuit

$$-V_{g1} = \text{max. } 300 \text{ V}$$

$$V_{kf} = \text{max. } 250 \text{ V}$$

PHILIPS



*Electronic
Tube*

HANDBOOK

page	MV6-5 sheet	date
1	1	1963.03.03
2	2	1963.03.03
3	3	1963.03.03
4	FP	1999.09.11