

MONITOR TUBE

The M24-100W is a 24 cm-diagonal rectangular television tube with metal-backed screen primarily intended for use as a monitor or display tube.

QUICK REFERENCE DATA		
Deflection angle	90 °	
Focusing	electrostatic	
Resolution	900 lines	
Overall length	max.	260 mm

SCREEN

Metal-backed phosphor

Luminescence	white		
Light transmission of face glass	52	%	
Useful diagonal	min.	225	mm
Useful width	min.	190	mm
Useful height	min.	140	mm

HEATING

Indirect by a.c. or d.c.; parallel supply

Heater voltage	V_f	6,3	V
Heater current	I_f	300	mA

CAPACITANCES

Final accelerator to external conductive coating	$C_{g_3, g_5(l)/m}$	420	pF
Cathode to all other elements	C_k	5	pF
Control grid to all other elements	C_{g_1}	7	pF

FOCUSING

electrostatic

For focusing voltage providing optimum focus at a beam current of 100 μ A see under "Typical operating conditions".

DEFLECTION 3)

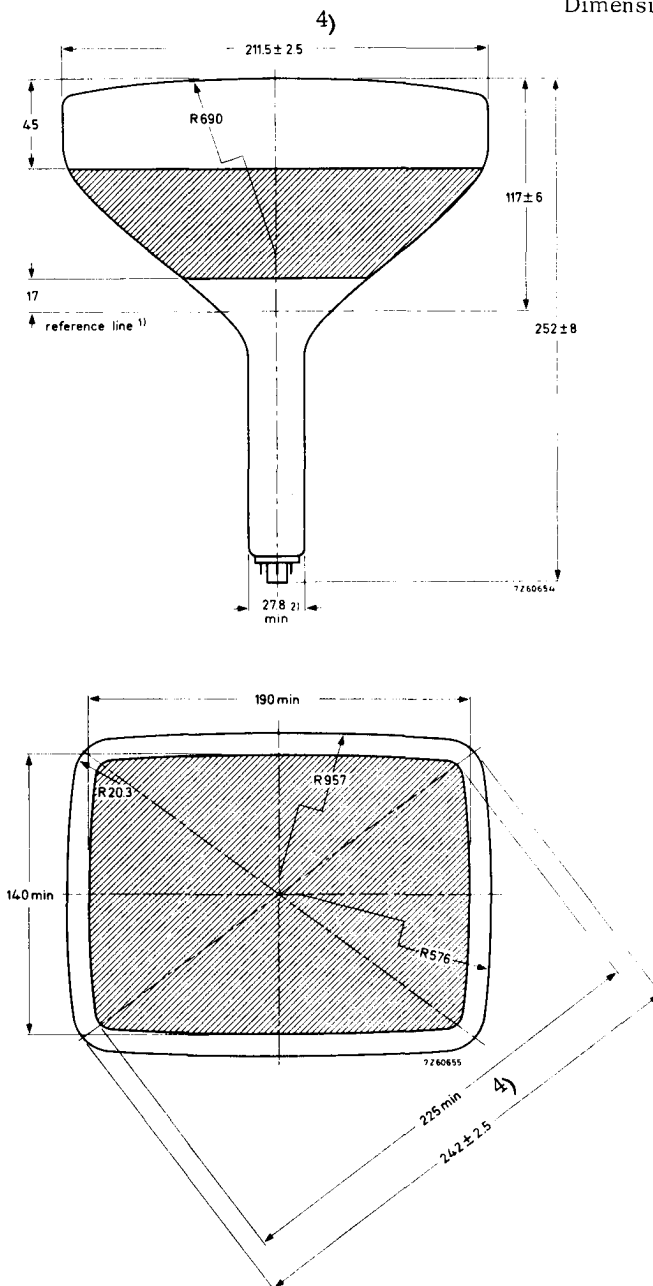
Diagonal deflection angle

MECHANICAL DATA

magnetic

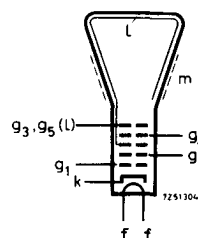
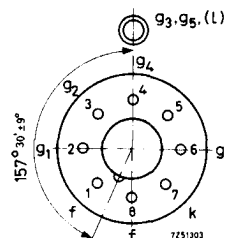
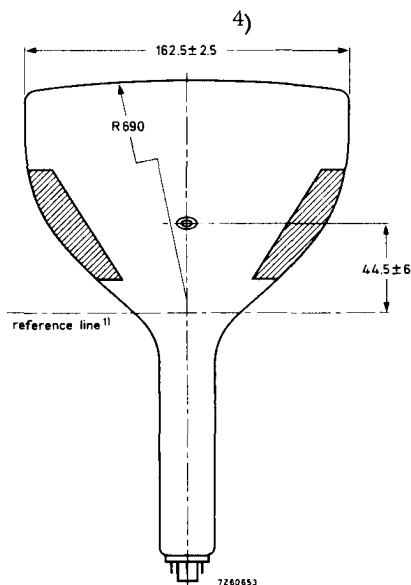
90°

Dimensions in mm



Notes see next page.

MECHANICAL DATA (continued)



Mounting position : any, except vertical with the screen downward and the axis of the tube making an angle of less than 20° with the vertical.

Base

Neo eightar (B8H)

Cavity contact

CT8

Accessories

Socket

2422 501 06001

Final accelerator contact connector

type 55563A

PICTURE CENTRING MAGNET

Field intensity perpendicular to the tube axis adjustable from 0 to 800 A/m (0 to 10 Oe). Adjustment of the centring magnet should not be such that a general reduction in brightness or shading of the raster occurs.

NOTES

- 1) The reference line is determined by the plane of the upper edge of the of the flange of reference line gauge when the gauge is resting on the cone.
- 2) The maximum dimension is determined by the reference line gauge.
- 3) Deflection coil AT1071/03 is recommended. If another coil is considered, it is advisable to contact the local tube supplier.
- 4) The bulge at the spliceline seal may increase the indicated maximum values for envelope width, diagonal and height by not more than 6,4 mm, but at any point around the seal the bulge will not protrude more than 3,2 mm beyond the envelope surface.

TYPICAL OPERATING CONDITIONS

Final accelerator voltage	$V_{g3, g5(l)}$	16	kV
Focusing electrode voltage	V_{g4}	0 to 400	V
First accelerator voltage	V_{g2}	600	V
Grid no.1 voltage for extinction of focused raster	V_{g1}	-32 to -85	V

RESOLUTION

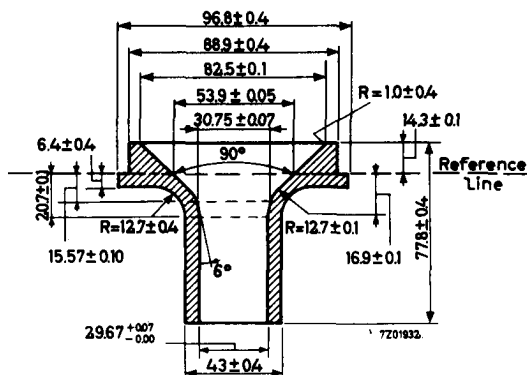
Resolution at screen centre measured with the shrinking raster method (non-interlaced raster), under typical operating conditions, at a beam current of $50 \mu\text{A}$ ($200\text{cd}/\text{m}^2 = 200\text{nit}$)
The resolution can be improved by the use of beam centring magnet catalogue number 3322 142 11401, supplied on request.

900 lines

LIMITING VALUES (Absolute max. rating system)

Final accelerator voltage	$V_{g3, g5(l)}$	max. 18	kV
		min. 10	kV
Focusing electrode voltage	V_{g4}	max. 1	kV
	$-V_{g4}$	max. 0,5	kV
First accelerator voltage	V_{g2}	max. 800	V
		min. 300	V
Grid no.1 voltage, negative	$-V_{g1}$	max. 150	V
positive	V_{g1}	max. 0	V
positive peak	V_{g1p}	max. 2	V
Cathode to heater voltage, positive	V_{kf}	max. 250	V
positive peak	V_{kf_p}	max. 300	V ¹⁾
negative	$-V_{kf}$	max. 135	V
negative peak	$-V_{kf_p}$	max. 180	V

REFERENCE LINE GAUGE



¹⁾ During a warm-up period not exceeding 15 s the heater may be 410 V negative with respect to the cathode,