

MONITOR TUBE

development sample data

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

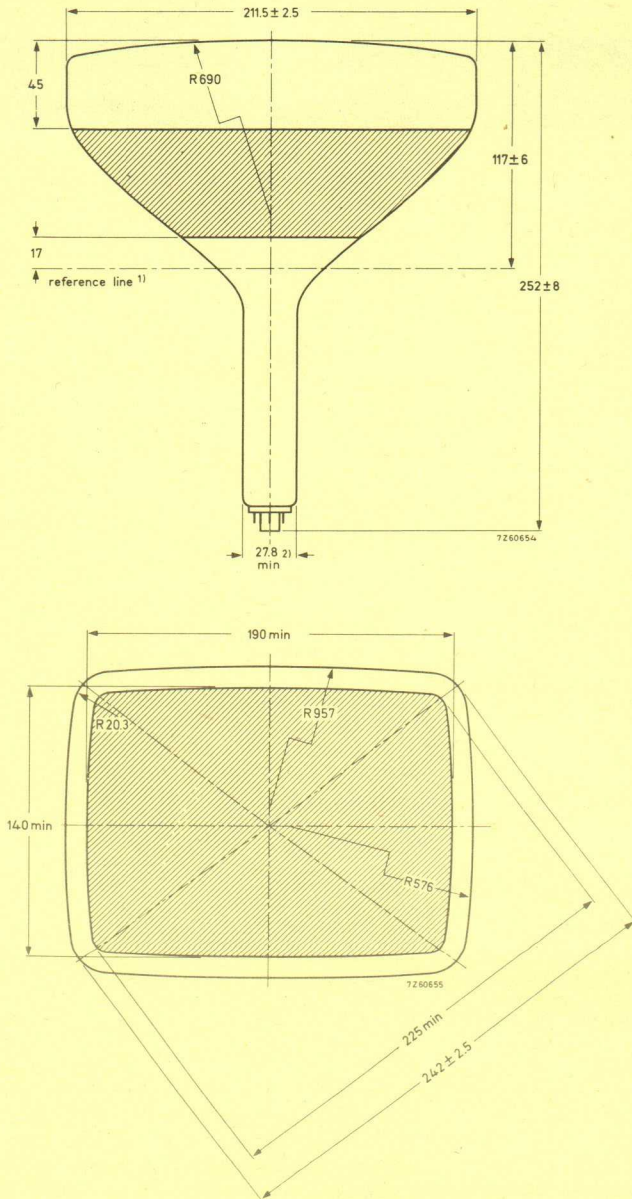
CAPACITANCES

Final accelerator to external conductive coating	$C_{g3, g5(\ell)/m}$	420 pF
Cathode to all other elements	C_k	4 pF
Control grid to all other elements	C_{g1}	7 pF

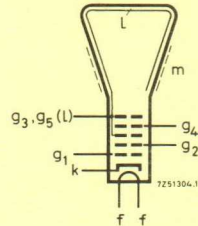
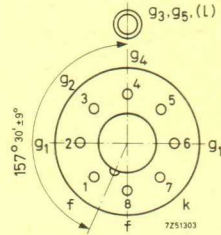
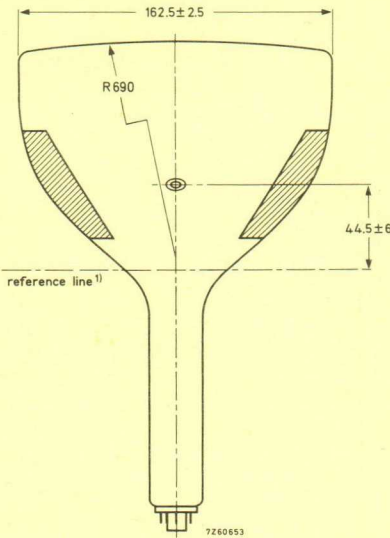
These data, based on the specifications and measured performance of development samples, afford a preliminary indication of the characteristics to be expected of the described product. Distribution of development samples implies no guarantee as to the subsequent availability of the product

MECHANICAL DATA

Dimensions in mm



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 55563

FOCUSSING electrostatic

The range of focus voltage shown under "Typical operating conditions" results in optimum focus at a beam current of 100 μA.

DEFLECTION ³⁾ magnetic

diagonal deflection angle 90°

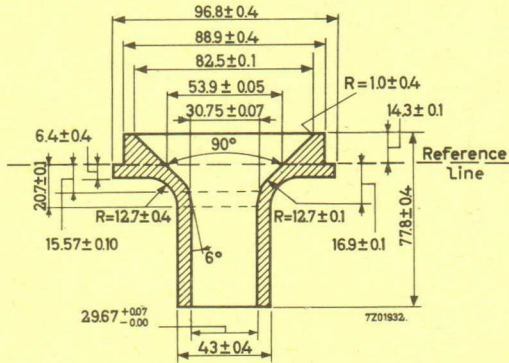
1) 2) 3) See page 5

PICTURE CENTRING MAGNET

Field intensity perpendicular to the tube axis adjustable from 0 to 79.6 A/m (0 to 10 Oerstedt). Adjustment of the centring magnet should not be such that a general reduction in brightness or shading of the raster occurs.

REFERENCE LINE GAUGE

Dimensions in mm



TYPICAL OPERATING CONDITIONS

Final accelerator voltage	$V_{g3, g5(l)}$	14	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, and a brightness of 60 mcd/cm² (600 Nit): *by 50 μA: minidex; 900 l*
 900 lines

4x Rand \bar{x}_5 : 740 l
4x hoch \bar{x}_5 : 460 l

LIMITING VALUES (Absolute max. rating system)

Final accelerator voltage	$V_{g3, g5(l)}$	max. 16 kV min. 10 kV
Focusing electrode voltage	V_{g4} $-V_{g4}$	max. 1 kV max. 500 V
First accelerator voltage	V_{g2}	max. 800 V min. 300 V
Cathode to heater voltage,		
positive	V_{kf}	max. 250 V
positive peak	V_{kfp}	max. 300 V ⁴⁾
negative	$-V_{kf}$	max. 135 V
negative peak	$-V_{kfp}$	max. 180 V

NOTES

- 1) Reference line is determined by the plane of the upper edge of the flange of the reference line gauge when the gauge is resting on the cone.
- 2) The maximum dimension is determined by the reference line gauge.
- 3) For a deflection coil the AT1040 is recommended. If another coil is considered, it is advisable to contact the local tube supplier.
- 4) During a warm-up period not exceeding 15 s the heater may be 410 V negative with respect to the cathode.

