

## MONITOR TUBE

The M24-101W is a 24 cm-diagonal rectangular television tube with integral protection primarily intended for use as a monitor or display tube.

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

### SCREEN

Metal backed phosphor

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

### FOCUSING

electrostatic

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

### DEFLECTION

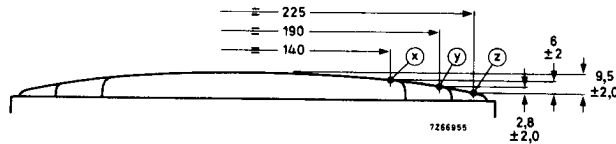
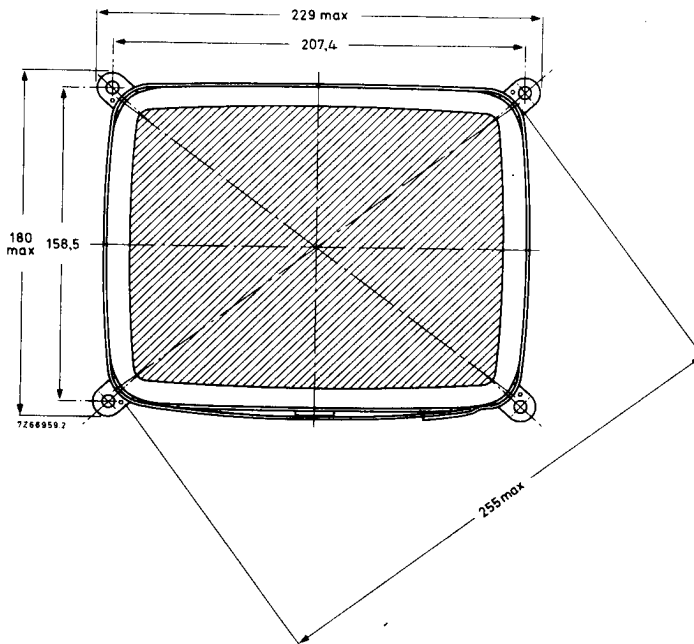
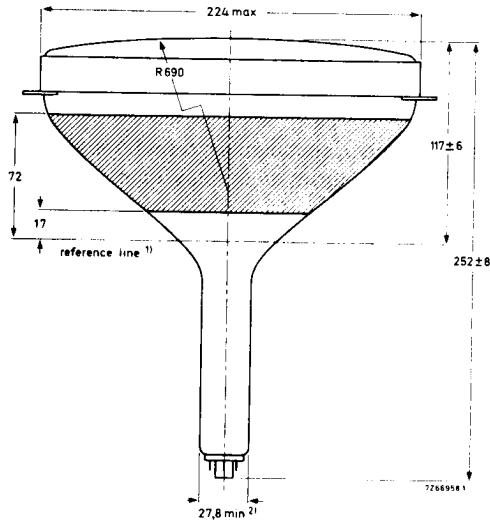
magnetic

Diagonal deflection angle		90 °
Horizontal deflection angle		80 °
Vertical deflection angle		65 °

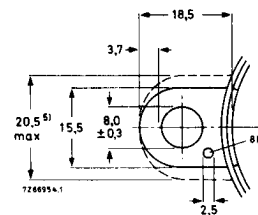
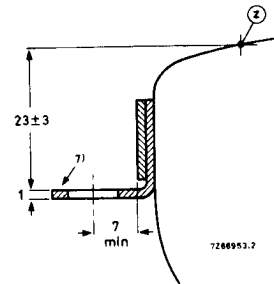
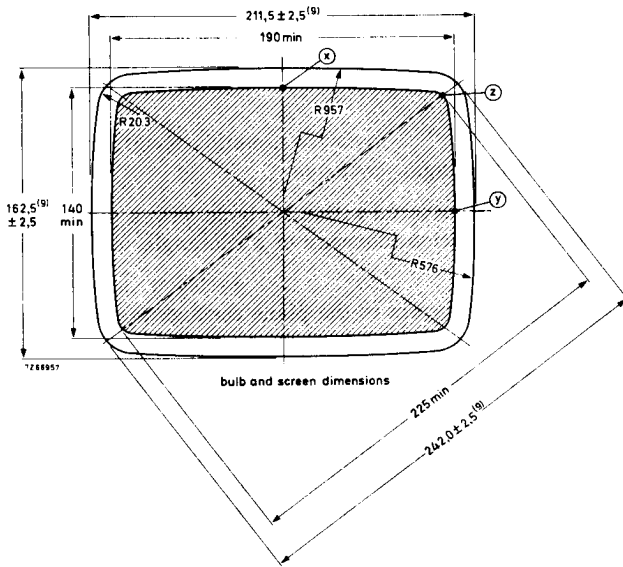
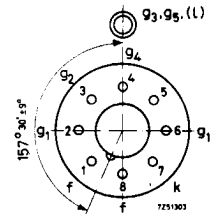
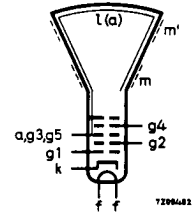
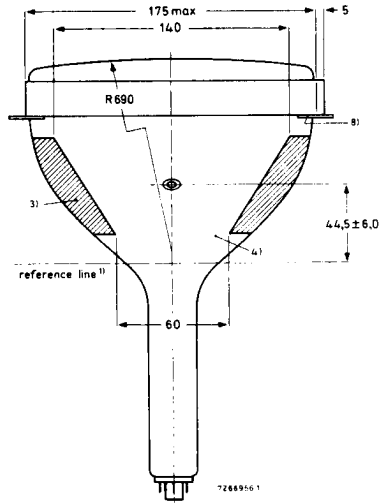
Deflection coil AT1071/03 is recommended.

MECHANICAL DATA

Dimensions in mm



MECHANICAL DATA (continued)



Notes see next page.

**MECHANICAL DATA** (continued)

Mounting position : any

<u>Base</u>	Neo eightar (B8H), IEC 67-I-31a
<u>Cavity contact</u>	CT8, IEC67-III-2
<u>Accessories</u>	
Socket	2422 501 06001
Final accelerator contact connector	

**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 cause a general reduction in brightness or shading of the raster.

**NOTES TO OUTLINE DRAWINGS**

- 1) The reference line is determined by the plane of the upper edge of the flange of the reference line gauge with the gauge resting on the cone.
- 2) The maximum dimension is determined by the reference line gauge.
- 3) This tube has an external conductive coating (m), which must be earthed. The capacitance of this coating to the final accelerator is used for smoothing the EHT. The tube marking and warning labels are on the side of the cone opposite the final accelerator contact, and this side should not be used for making contact to the conductive coating.
- 4) This area must be kept clean.
- 5) Minimum space to be reserved for mounting lugs.
- 6) The mounting screws in the cabinet must be situated within a circle with a diameter of 4 mm drawn around the true geometrical position (corners of a rectangle of 207,4 mm x 158,5 mm).
- 7) The maximum displacement of any lug with respect to the plane through the other three lugs is 2 mm.
- 8) The metal rim-band must be earthed. The hole of 2,5 mm diameter in each lug is provided for this purpose.
- 9) 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.

## CAPACITANCES

Final accelerator to external conductive coating	$C_{g3}, g_5(\ell)/m$	420	pF
Final accelerator to metal band	$C_{g3}, g_5(\ell)/m'$	200	pF
Cathode to all other elements	$C_k$	5	pF
Control grid to all other elements	$C_{g1}$	7	pF

## TYPICAL OPERATING CONDITIONS

Final accelerator voltage	$V_{g3}, g_5(\ell)$	16	kV
Focusing electrode voltage	$V_{g4}$ 0 to	400	V
First accelerator voltage	$V_{g2}$	600	V
Grid 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 at a beam current of 50  $\mu$ A: 900 lines (luminance  $\approx$  200  $\text{cd}/\text{m}^2$ ).

If necessary, the picture quality can be improved by using a beam centring magnet. This magnet, catalogue number 3322 142 11401, can be supplied on request.

## LIMITING VALUES (Absolute max. rating system)

Final accelerator voltage	$V_{g3}, g_5(\ell)$	max.	18	kV	
		min.	10	kV	
Focusing electrode voltage, positive	$V_{g4}$	max.	1000	V	
		negative	$-V_{g4}$	max. 500	V
First accelerator voltage	$V_{g2}$	max.	800	V	
		min.	300	V	
Grid 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	$V_{kfp}$	max. 300	V <sup>1)</sup>
		negative	$-V_{kf}$	max. 135	V
		negative peak	$-V_{kfp}$	max. 180	V

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

REFERENCE LINE GAUGE

Dimensions in mm

