

**LIMITING VALUES** (Absolute maximum rating system)

Final accelerator voltage	$V_{g8(l)}$	max.	18 kV
Post deflection accelerator mesh electrode voltage	$V_{g7}$	max.	2500 V
Geometry control electrode voltage	$V_{g6}$	max.	2500 V
Interplate shield voltage	$V_{g5}$	max.	2500 V
Astigmatism control electrode voltage	$V_{g4}$	max.	2500 V
Focusing electrode voltage	$V_{g3}$	max.	2500 V
First accelerator voltage	$V_{g2}$	max.	2500 V
Control grid voltage	$-V_{g1}$	max. min.	200 V 0 V
Cathode to heater voltage			
positive	$V_{kf}$	max.	125 V
negative	$-V_{kf}$	max.	125 V
Voltage between astigmatism control electrode and any deflection plate	$V_{g4/x}$ $V_{g4/y}$	max.	500 V 500 V
Grid drive, average		max.	20 V
Screen dissipation	$W_{\ell}$	max.	8 mW/cm <sup>2</sup>
Control grid circuit resistance	$R_{g1}$	max.	1 M $\Omega$

**INSTRUMENT CATHODE-RAY TUBE**

14 cm diagonal rectangular flat-faced oscilloscope tube with domed mesh and metal-backed screen with internal graticule. The tube has side connections to the x and y-plates, and is intended for use in compact oscilloscopes with up to 150 MHz bandwidth. This tube features a 1,5 W cathode with short warm-up time (quick-heating cathode).

**QUICK REFERENCE DATA**

Final accelerator voltage	$V_{g8(l)}$	16,5 kV
Display area		100 x 80 mm <sup>2</sup>
Deflection coefficient		
horizontal	$M_x$	8,7 V/cm
vertical	$M_y$	4,7 V/cm

**OPTICAL DATA**

Screen	metal-backed phosphor
type	GH, colour green
persistence	medium short
Useful screen dimensions	$\geq$ 100 x 80 mm <sup>2</sup>
Useful scan	
horizontal	$\geq$ 100 mm
vertical	$\geq$ 80 mm
Spot eccentricity in horizontal and vertical directions	$\leq$ 6,5 mm

**HEATING**

Indirect by a.c. or d.c.; parallel supply		
Heater voltage	$V_f$	6,3 V
Heater current	$I_f$	240 mA

blue binder, tab 4

**MECHANICAL DATA****Dimensions and connections**

See outline drawings

Overall length (socket included)

≤ 397 mm

Face dimensions

≤ 100 x 120 mm<sup>2</sup>**Net mass**

approx. 1 kg

**Base**

14 pin, all glass

**Mounting position: any**

The tube should not be supported by the base alone and under no circumstances should the socket be allowed to support the tube.

**Accessories**

Socket, supplied with tube

type 55572

Side contact connector (7 required)

type 55561

Final accelerator contact connector

connection to final  
accelerator electrode is  
made via an EHT cable  
attached to the tube

**FOCUSING**

electrostatic

**DEFLECTION**

x-plates

double electrostatic

y-plates

symmetrical

Angle between x and y-traces

symmetrical

90 ± 1°

Angle between y-trace and y-axis of the internal graticule

≤ 5° \*

If use is made of the full deflection capabilities of the tube the deflection plates will block part of the electron beam, hence a low impedance deflection plate drive is desirable.

\* The tube is provided with a rotation coil, concentrically wound around the tube neck, enabling the alignment of the y-trace with the mechanical y-axis of the screen. The coil has 2000 turns and a maximum resistance of 650 Ω. Under typical operating conditions, a maximum of 40 ampere-turns are required for the maximum rotation of 5°. This means the required current is 20 mA maximum at a required voltage of 13 V.

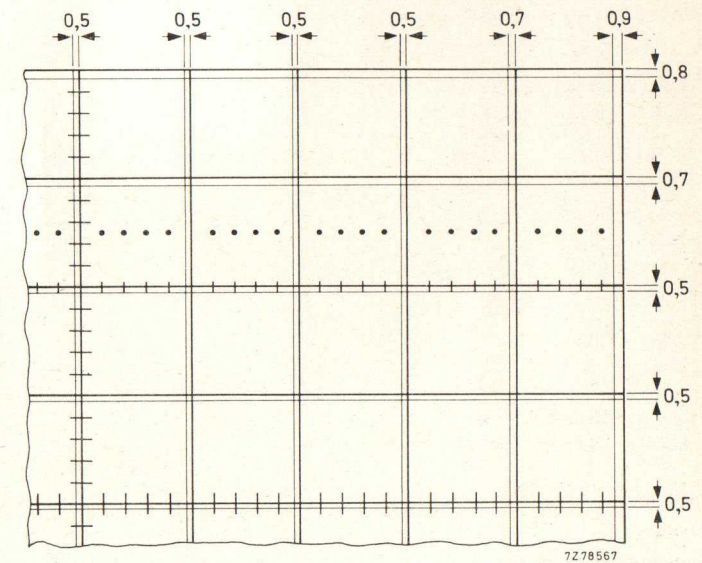


Fig. 6 Quarter of graticule with horizontal and vertical line pairs, see note 6 on opposite page.