

INSTRUMENT CATHODE-RAY TUBE

14 cm diagonal, rectangular flat faced oscilloscope tube with post-deflection acceleration mesh, primarily intended for use in compact oscilloscopes with 15 to 20 MHz bandwidth. This tube features a 1,5 W cathode with short warm-up time (quick-heating cathode).

QUICK REFERENCE DATA

Final accelerator voltage	$V_{g7(\ell)}$	4 kV
Display area		100 x 80 mm ²
Deflection coefficient		
horizontal	M_x	19,5 V/cm
vertical	M_y	10,5 V/cm

OPTICAL DATA

Screen		metal-backed phosphor
type		GH, colour green
persistence		medium short
Useful screen dimensions	\geq	100 x 80 mm ²
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

MECHANICAL DATA

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.

Net mass		approx. 1050 g
Base		14-pin, all glass
Final accelerator contact		small ball (JEDEC J1-25)

blue binder, tab 4



Dimensions and connections

See also outline drawing

Overall length	≤	333 mm
Face dimensions	≤	100 x 120 mm ²

Accessories

Socket, supplied with tube	type 55566
Mu-metal shield	type 55591
Final accelerator contact connector	type 55569

FOCUSING

electrostatic

DEFLECTION

double electrostatic

x-plates symmetrical

y-plates symmetrical

Angle between x and y-traces $90 \pm 1^\circ$ Angle between x-trace and horizontal axis of the face $\leq 5^\circ$ *

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.

CAPACITANCES

x ₁ to all other elements except x ₂	C _{x1(x2)}	7 pF
x ₂ to all other elements except x ₁	C _{x2(x1)}	6,5 pF
y ₁ to all other elements except y ₂	C _{y1(y2)}	4 pF
y ₂ to all other elements except y ₁	C _{y2(y1)}	3,5 pF
x ₁ to x ₂	C _{x1x2}	2,2 pF
y ₁ to y ₂	C _{y1y2}	1,1 pF
Control grid to all other elements	C _{g1}	6,1 pF
Cathode to all other elements	C _k	2,7 pF

* The tube is provided with a rotation coil, concentrically wound around the tube neck, enabling the alignment of the x-trace with the mechanical x-axis of the screen. The coil has 1000 turns and a resistance of max. 400 Ω. Under typical operating conditions, max. 30 ampere-turns are required for the max. rotation of 5°. This means the required current is max. 30 mA at a required voltage of max. 12 V.

Notes to the drawings on opposite page.

1. The bulge at the frit seal may increase the indicated maximum dimensions by not more than 2 mm.
2. The coil is fixed to the envelope by means of adhesive tape.
3. The centre of the contact is situated within a square of 10 mm x 10 mm around the true geometrical position.
4. The length of the connecting leads of the rotation coil is min. 350 mm.