

INSTRUMENT CATHODE-RAY TUBE

7 cm diagonal, rectangular flat faced monoaccelerator oscilloscope tube primarily intended for use in inexpensive oscilloscopes and monitoring devices. This tube features a 1,5 W cathode with short warm-up time (quick-heating cathode).

QUICK REFERENCE DATA

Accelerator voltage	$V_{g2, g4, g5 (k)}$	1000 V
Display area		60 x 36 mm ²
Deflection coefficient		
horizontal	M_x	12,5 V/cm
vertical	M_y	20 V/cm

OPTICAL DATA

Screen		metal-backed phosphor
type		GH, colour green
persistence		medium short
Useful screen dimensions	\geq	60 x 36 mm
Useful scan		
horizontal	\geq	60 mm
vertical	\geq	36 mm
Spot eccentricity in horizontal and vertical directions	$<$	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. 350 g
Base	12-pin all glass; JEDEC B12-246

blue binder, tab 4



Dimensions and connections

See also outline drawing

Overall length	≤	225 mm
Face dimensions	≤	72,5 x 49 mm

Accessories

Socket, supplied with tube	type 55589
Mu-metal shield	type 55535

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 $\leq 3^\circ *$

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	$C_{x1(x2)}$	4,0 pF
x_2 to all other elements except x_1	$C_{x2(x1)}$	4,1 pF
y_1 to all other elements except y_2	$C_{y1(y2)}$	4,2 pF
y_2 to all other elements except y_1	$C_{y2(y1)}$	5,4 pF
x_1 to x_2	C_{x1x2}	1,6 pF
y_1 to y_2	C_{y1y2}	1,8 pF
Control grid to all other elements	C_{g1}	7,0 pF
Cathode to all other elements	C_k	4,2 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 maximum resistance of 250 Ω . Under typical operating conditions, a maximum of 10 ampere-turns are required for the maximum rotation of 3° . This means the required current is 10 mA maximum at a required voltage of 2,5 V maximum.