

INSTRUMENT CATHODE-RAY TUBE

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

QUICK REFERENCE DATA

Accelerator voltage	$V_{g2, g4, g5} (\text{k})$	2000 V
Display area		100 x 80 mm ²
Deflection coefficient		
horizontal	M_x	23 V/cm
vertical	M_y	13,5 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	$<$	7 mm

blue binder, tab 4

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. 1000 g
Base	14-pin all glass



Dimensions and connections

See also outline drawing

Overall length (socket included)	≤	333 mm
Face dimensions	≤	121 x 100 mm

Accessories

Socket (supplied with tube)	type 55566
Mu-metal shield	type 55590

FOCUSING

electrostatic

DEFLECTION

double electrostatic

x-plates

symmetrical

y-plates

symmetrical

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.

Angle between x and y-traces $90^\circ \pm 1^\circ$

Angle between x-trace and horizontal axis of the face see footnote

CAPACITANCES

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

Note

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.