

INSTRUMENT CATHODE-RAY TUBE

14 cm diagonal, rectangular flat faced, split-beam oscilloscope tube with mesh and metal-backed screen.

QUICK REFERENCE DATA

Final accelerator voltage	$V_{g7(\ell)}$	10	kV
Display area		100 x 80	mm ²
Deflection coefficient, horizontal vertical	M_x	13.5	V/cm
	$M_{y'}$	9	V/cm
	$M_{y''}$	9	V/cm
Overlap of the systems		100	%

SCREEN : Metal-backed phosphor

	Colour	Persistence
E14-100GH	green	medium short

Useful screen dimensions	min.	100 x 80	mm ²
Useful scan at $V_{g7(\ell)}/V_{g2, g4} = 6.7$	horizontal	min.	100 mm
	vertical (each system)	min.	80 mm
	overlap		100 %
Spot eccentricity in horizontal and vertical directions	max.	7	mm

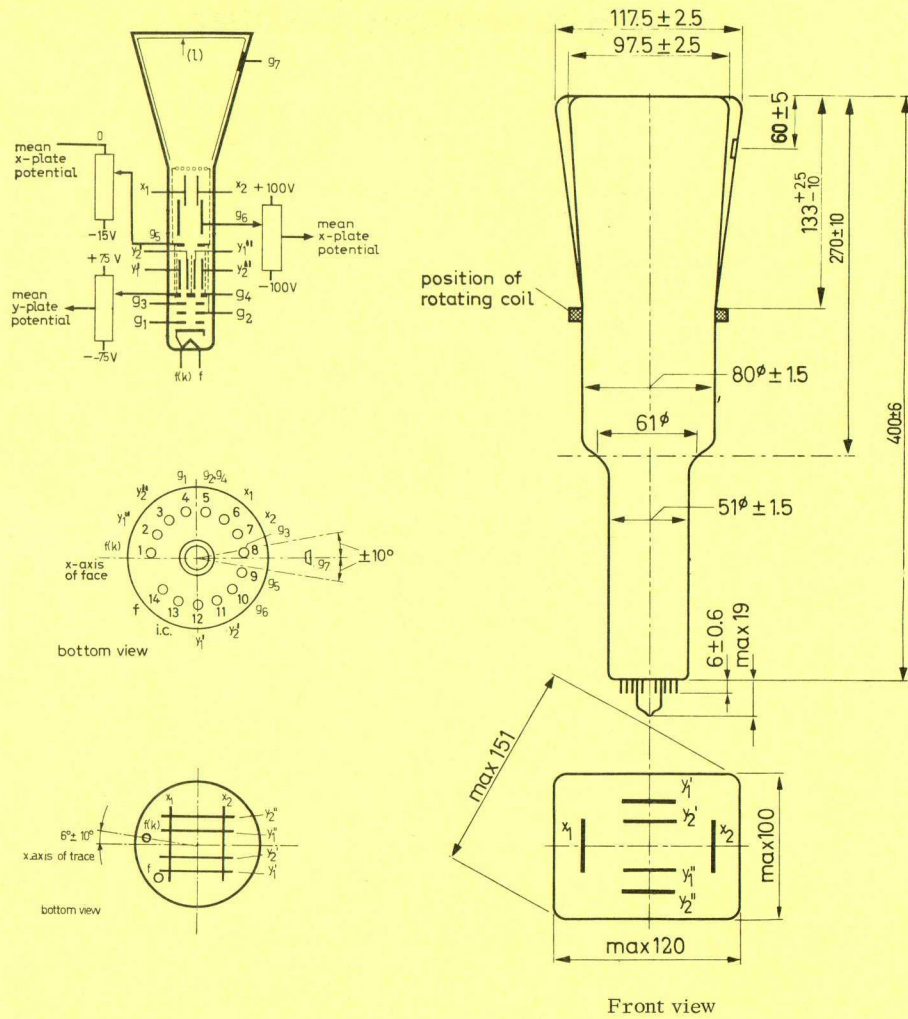
HEATING : indirect by A.C. or D.C. ; parallel supply

Heater voltage	V_f	6.3	V
Heater current	I_f	300	mA

Blue Binder, Tab. 4

MECHANICAL DATA

Dimensions in mm



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.

MECHANICAL DATA (continued)Dimensions and connections

See also outline drawing.

Overall length (socket included)	max.	425	mm
Face dimensions	max.	120 x 100	mm ²
<u>Net weight</u>	approx.	900	g
<u>Base</u>		14-pin all glass	

Accessories

Socket (supplied with tube)	type	55566
Final accelerator contact connector	type	55563

FOCUSING Electrostatic

DEFLECTION Double electrostatic
 x-plates symmetrical
 y-plates symmetrical

If the full deflection capacity of the tube is used, part of the beam is intercepted by the deflection plates; hence a low-impedance deflection plate drive is desirable.

Angle between x and y traces (each beam)		90 ± 1	°
Angle between corresponding y traces at screen centre	max.	45	'
Angle between x trace and horizontal axis of the face	max.	5	°

The x-trace can be aligned with the horizontal axis of the screen by rotating the entire image by means of a rotation coil. This coil will have less than 50 amperturns for the indicated max. rotation of 5° and should be positioned as indicated on the drawing.

LINE WIDTH

Measured with the shrinking raster method under typical operating conditions, and adjusted for optimum spot size at a beam current of 5 μ A per system.

Line width at screen centre	l.w. approx.	0.35	mm
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CAPACITANCES

x ₁ to all other elements except x ₂	C _{x1(x2)}	8	pF
x ₂ to all other elements except x ₁	C _{x2(x1)}	8	pF
y ₁ ' to all other elements except y ₂ '	C _{y1'(y2')}	5	pF
y ₂ ' to all other elements except y ₁ '	C _{y2'(y1')}	6.5	pF
y ₁ " to all other elements except y ₂ "	C _{y1"(y2")}	6.5	pF
y ₂ " to all other elements except y ₁ "	C _{y2"(y1")}	5	pF