

## INSTRUMENT CATHODE-RAY TUBE

14 cm diagonal rectangular flat-faced monoaccelerator oscilloscope tube primarily intended for use in inexpensive oscilloscopes and read-out devices.

## QUICK REFERENCE DATA

Accelerator voltage	$V_{g2, g4, g5(\ell)}$	2000	V
Display area		100 x 80	mm <sup>2</sup>
Deflection coefficient, horizontal vertical	$M_x$	≈ 24	V/cm
	$M_y$	≈ 13,5	V/cm

## SCREEN

	colour	persistence
D14-250GH	green	medium short

Useful screen dimensions	≥	100	x	80	mm
Useful scan, horizontal	≥	100			mm
vertical	≥	80			mm

## HEATING

Indirect by a.c. or d.c.; parallel supply

Heater voltage	$V_f$	6,3	V
Heater current	$I_f$	300	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.

Dimensions and connections

See also outline drawing

Overall length (socket included) ≤ 333 mm

Face dimensions ≤ 121 x 100 mm

Net mass ≈ 750 g

Base 14-pin all glass

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Accessories

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

**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 note 1)

**CAPACITANCES**

$x_1$ to all other elements except $x_2$	$C_{x1(x2)}$	4	pF
$x_2$ to all other elements except $x_1$	$C_{x2(x1)}$	4	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 $x_2$	$C_{x1x2}$	1,6	pF
$y_1$ to $y_2$	$C_{y1y2}$	1,1	pF
Control grid to all other elements	$C_{g1}$	5,5	pF
Cathode to all other elements	$C_k$	4	pF

1) 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  $400 \Omega$ . Under typical operating conditions, max. 30 ampere turns are required for the max. rotation of  $5^\circ$ . This means: the required current is max. 30 mA at a required voltage of 12 V.

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This tube features a low heater power consumption.

**QUICK REFERENCE DATA**

Accelerator voltage	$V_{g2, g4, g5(l)}$	2000	V
Display area		100 x 80	mm <sup>2</sup>
Deflection coefficient, horizontal	$M_x$	$\approx 24$	V/cm
	$M_y$	$\approx 13,5$	V/cm

The D14-251GH is equivalent to the type D14-250GH except for the following:

**HEATING**

Indirect by a.c. or d.c.; parallel supply

Heater voltage	$V_f$	6,3	V
Heater current	$I_f$	95	mA

**LIMITING VALUES** (Absolute max. rating system)

Cathode to heater voltage, positive	$V_{kf}$	max.	100	V
	$-V_{kf}$	max.	15	V

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DIMENSIONS AND CONNECTIONS

Dimensions in mm

