

DEVELOPMENT SAMPLE DATA

This information is derived from development samples made available for evaluation. It does not necessarily imply that the device will go into regular production.

D12-120GH/109

INSTRUMENT CATHODE-RAY TUBE

12 cm diagonal rectangular flat-faced oscilloscope tube with mesh and metal-backed screen with internal graticule. The tube is intended for use in compact oscilloscopes.

QUICK REFERENCE DATA

Final accelerator voltage	$V_{g8(\ell)}$	10 kV
Display area		80 x 64 mm ²
Deflection coefficient		
horizontal	M_x	15,6 V/div
vertical	M_y	4,1 V/div

OPTICAL DATA

Screen		metal-backed phosphor
type		GH, colour green
persistence		medium short
Useful screen dimensions		$\geq 80 \times 64$ mm ²
Useful scan		
horizontal		≥ 80 mm
vertical		≥ 64 mm
Spot eccentricity in horizontal and vertical directions		$\leq 0,6$ div

HEATING

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

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

blue binder, tab 4



PHILIPS

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MECHANICAL DATA**Dimensions and connections**

See outline drawings

Overall length (socket included) ≤ 335 mmFace dimensions $\leq 88 \times 100$ mm²**Net mass** approx. 700 g**Base** 14 pin, all glass**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.

Accessories

Socket, supplied with tube type 55566
 Side contact connector (5 required) type 55561
 Final accelerator contact connector type 55563A

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 x-axis of the internal graticule $\leq 5^\circ$ *

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.

Instrument cathode-ray tube**LIMITING VALUES** (Absolute maximum rating system)

Final accelerator voltage	$V_{g8(\ell)}$	max. 11 kV min. 9 kV
Geometry control electrode voltage	V_{g7}	max. 2200 V
Post deflection shield and interplate shield voltage	V_{g6}	max. 2200 V
Deflection plate shield voltage	V_{g5}	max. 2200 V
Focusing electrode voltage	V_{g3}	max. 2200 V
First accelerator and astigmatism voltage	$V_{g2,g4}$	max. 2200 V min. 1350 V
Control grid voltage	V_{g1}	max. -200 V min. 0 V
Cathode to heater voltage		
positive	V_{kf}	max. 100 V
negative	$-V_{kf}$	max. 15 V
Voltage between astigmatism control electrode and any deflection plate	$V_{g4/x}$ $V_{g4/y}$	max. 500 V max. 500 V
Grid drive, average		max. 20 V
Screen dissipation	W_ℓ	max. 8 mW/cm ²
Control grid circuit resistance	R_{g1}	max. 1 M Ω

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* The tube is provided with a rotation coil, concentrically wound around the tube neck, enabling the alignment of the x-trace with the mechanical y-axis of the screen. Coil data to be fixed.