

GENERAL

The 31E14 is a 14" diagonal rectangular tube with 70° magnetic deflection and low voltage electrostatic focusing. It is intended for use in television studio monitoring equipment.

RATINGS

Heater voltage	V_h	6.3	V
Heater current	I_h	0.3*	A
Maximum second and fourth anode voltage	$V_{a2,a4(max)}$	16**	kV
Minimum second and fourth anode voltage	$V_{a2,a4(min)}$	10	kV
Maximum third anode voltage	$V_{a3(max)}$	± 500	V
Maximum first anode voltage	$V_{a1(max)}$	500	V
Maximum heater/cathode voltage, d.c. (heater negative)	$V_{h-k(max)}$	180	V
Maximum peak heater/cathode voltage, d.c. (heater negative)	$V_{h-k(pk)max}$	400†‡	V

* The cathode-ray tube heater should always be connected at the chassis end in a series heater chain.

** 16kV is a design centre rating, the absolute rating of 20kV must not be exceeded.

† Absolute rating.

‡ During a warming-up period not exceeding one minute.

INTER-ELECTRODE CAPACITANCES§

Grid/All other electrodes	C_{g-all}	9.0	pF
Cathode/All other electrodes	C_{k-all}	7.0	pF
Anode 2 and Anode 4/External conductive coating (approx)	$C_{a2,a4-M}$	1,300	pF

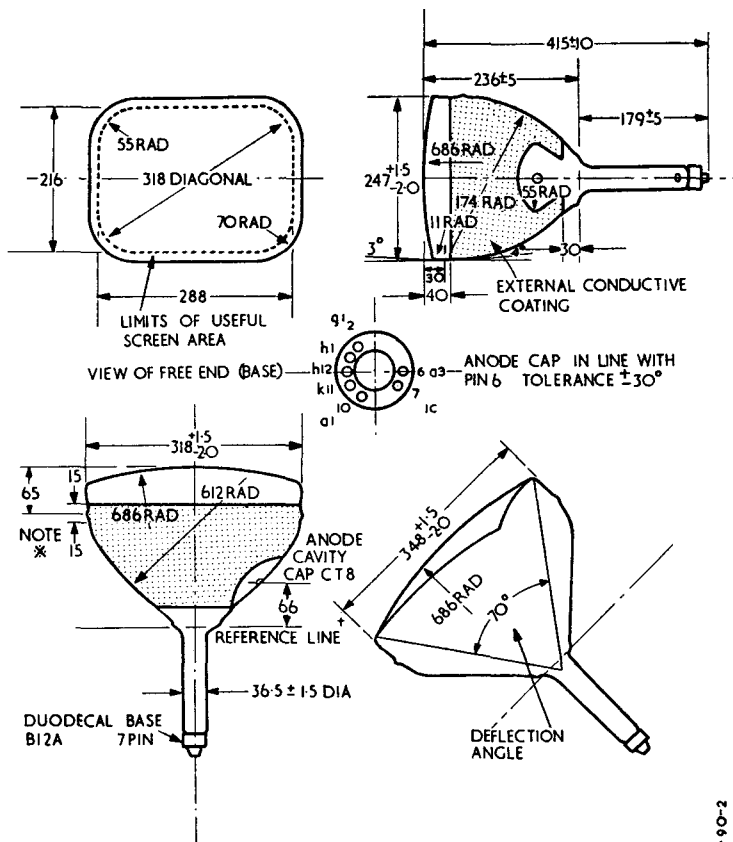
§ These capacitances include an AEI duodecal holder type CRT92/7.

TYPICAL OPERATION

Second and fourth anode voltage	$V_{a2,a4}$	12	kV
First anode voltage	V_{a1}	300	V
Third anode voltage for focus (range)	V_{a3}	-300 to +300	V
Grid bias voltage for cut-off of raster	V_g	-30 to -72	V
Average peak to peak modulating voltage for modulation up to 150µA		24	V

Note

If this tube is operated at voltages in excess of 16 kV, x-ray radiation shielding may be necessary to avoid possible danger of personal injury from prolonged exposure at close range. The normal glass protective viewing window may provide such a safeguard. If the radiation measured in contact with this window does not exceed 0.5 milliroentgens per hour, the window will normally provide adequate protection.



All dimensions in millimetres.
Not to be scaled.

Notes

* During the face sealing operation the glass in this area (total 30 mm) may be disturbed. As the shape of the contour within this area may be either convex or concave the bulb should not be gripped within this region unless special precautions are taken (such as the use of resilient packing material).

† Determined by reference gauge No. 12.