

31C14 CATHODE RAY TUBE

Indirectly heated—for Radio D.F. Compass

GENERAL

The 31C14 is a magnetically focused and deflected cathode ray tube. The tube is aluminised, has a 6" diameter flat face, and is available with a screen type T1 which gives a green trace of medium persistence. It has an internal compass scale uniformly graduated and its face is treated to reduce specular reflection.

RATING

Heater Voltage	V_h	6.3 V
Heater Current	I_h	0.6 A
Maximum Anode Voltage	$V_a(\max)$	10* kV
Minimum Anode Voltage	$V_a(\min)$	7.5 kV
Maximum Heater/Cathode Voltage d.c. (heater negative)	$V_{h-k}(\max)$	150 V

* 10 kV is a design centre rating. The absolute rating of 12.5 kV maximum must not be exceeded.

INTER-ELECTRODE CAPACITANCES

Grid/All other electrodes	c_{g-all}	4.7 pF
Cathode/All other electrodes	c_{k-all}	5.3 pF

These capacitances include an AEI wafer-type duodecal holder.

TYPICAL OPERATION

Anode Voltage	V_a	9.5 kV
Grid Bias Voltage for cut-off of 140mm focused line	V_g	-43 to -93 V
Average Peak to Peak Modulating Voltage for Modulation up to 150 μ A		30 V
Maximum Peak to Peak Modulating Voltage for Modulation of limit Cathode Ray Tube up to 150 μ A		35 V

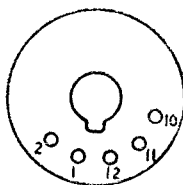
A resistance should be inserted in the anode circuit in order to limit the discharge current to 100mA (max), in the event of a flash-over inside the tube.

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DIMENSIONS

Maximum Overall Length	458 mm
Maximum Face Diameter	160 mm
Maximum Neck Diameter	35 mm
Approximate Net Weight	2 $\frac{1}{4}$ lb.
Approximate Packed Weight	16 $\frac{1}{4}$ lb.

CAP—Cavity (CT8)**BASE**—B12A (5 Pin)

Viewed from free end of pins

CONNECTIONS

Pin 1	Heater	h
Pin 2	Grid	g
Pin 3	No Pin	NP
Pin 4	No Pin	NP
Pin 5	No Pin	NP
Pin 6	No Pin	NP
Pin 7	No Pin	NP
Pin 8	No Pin	NP
Pin 9	No Pin	NP
Pin 10	No Connection	NC
Pin 11	Cathode	k
Pin 12	Heater	h
Cap	Anode	a