

## 30C2

## 5½" MEASUREMENT CATHODE RAY TUBE ELECTROSTATIC FOCUS AND DEFLECTION

## GENERAL

The 30C2 is a precision Measurement Cathode Ray Tube having a 5½" diameter polished flat face.

## RATING

Heater Voltage (volts)	V <sub>h</sub>	4.0
Heater Current (amps)	I <sub>h</sub>	0.72
Maximum 1st Anode Voltage (volts)	V <sub>a1(max)</sub>	2,500
Maximum 2nd Anode Voltage (volts)	V <sub>a2(max)</sub>	1,000
Maximum 3rd Anode Voltage (volts)	V <sub>a3(max)</sub>	6,000
Average Sensitivity of " X " Plates (mm/V)		600/V*
Average Sensitivity of " Y " Plates (mm/V)		1100/V*

\* Where " V " denotes the voltage on the 3rd Anode and bulb coating.

## INTER-ELECTRODE CAPACITANCES (pF)

X1 Plate/All other electrodes	c <sub>x1-all</sub>	15.0
X2 Plate/All other electrodes	c <sub>x2-all</sub>	15.0
Y1 Plate/All other electrodes	c <sub>y1-all</sub>	14.5
Y2 Plate/All other electrodes	c <sub>y2-all</sub>	14.5
X1 Plate/Y1 Plate	c <sub>x1-y1</sub>	1.5
X1 Plate/Y2 Plate	c <sub>x1-y2</sub>	1.0
X2 Plate/Y1 Plate	c <sub>x2-y1</sub>	1.0
X2 Plate/Y2 Plate	c <sub>x2-y2</sub>	1.25
Grid/All other electrodes	c <sub>g-all</sub>	9.5

## DIMENSIONS

Maximum Overall Length	(mm)	430
Maximum Diameter	(mm)	142
Nominal Screen Diameter	(ins)	5½
Approximate Nett Weight	(ozs)	30
Approximate Packed Weight	(lbs)	11½

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### NOTES

For general measurement work the 30C2/T1 is recommended. This has a screen with a medium persistence green phosphor. For special applications, however, the tube may be supplied with any of the standard phosphors described on the Introductory Page to this Section, except T7.

The Final Anode and the Bulb coating are brought out separately from the First Anode in order that a finer spot or a high writing speed may be obtained by increasing the Final Anode Voltage above the limit set for the First Anode Voltage.

In use the Third Anode and Bulb coating are normally joined.

All Maximum Ratings are Absolute Values, not Design Centres.

### TYPICAL OPERATION

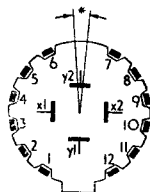
3rd Anode Voltage (volts)	$V_{a3}$	2,000	5,000
2nd Anode Voltage for focus (approx.) (volts)	$V_{a2}$	440	800
1st Anode Voltage (volts)	$V_{a1}$	2,000	2,000
Average Bias on Control Grid for Cut-off of Beam Current (volts)	$V_g$	-60	-60
Average Working Bias for 20 $\mu$ A Beam (volts)		-33	-33
Approximate Sensitivity of "X" Plates (mm/V)		0.30	0.12
Approximate Sensitivity of "Y" Plates (mm/V)		0.57	0.23

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BASE—B12D

\* Permissible angular variation  
of mounts  $\pm 10^\circ$



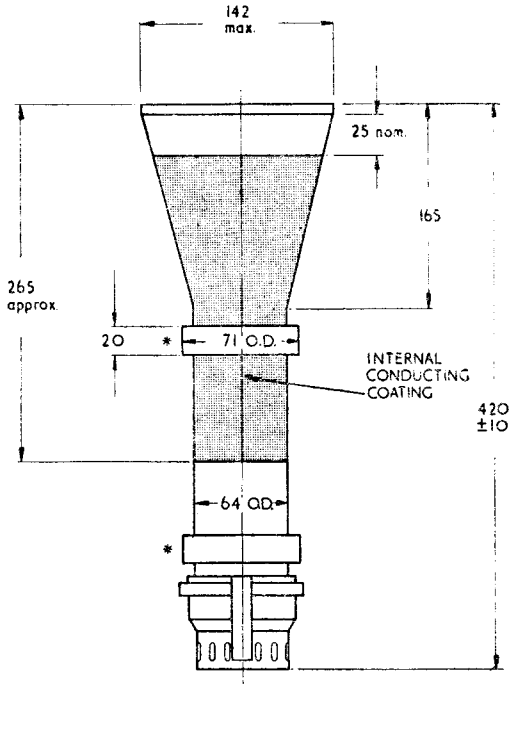
View from free end of base.

## CONNECTIONS

Pin 1	Control Grid	g
Pin 2	Cathode	k
Pin 3	Heater	h
Pin 4	Heater	h
Pin 5	Anode 1	a1
Pin 6	Anode 2	a2
Pin 7	Internal Coating	m
Pin 8	Deflecting Plate Y2	y2
Pin 9	Deflecting Plate X2	x2
Pin 10	Anode 3	a3
Pin 11	Deflecting Plate X1	x1
Pin 12	Deflecting Plate Y1	y1

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All Dimensions in mm.

\* Two movable Bakelite bands are fitted to support a Mu-Metal shield.