

**EDISWAN****MAZDA****30E10****30E10****CATHODE RAY TUBE—ALL ELECTROSTATIC 12" Dia.****Indirectly heated—****for measurement purposes or Radio D.F. Compass****NOTES**

The 30E10 is a precision constructed instrument which provides bearings with an error not exceeding  $\pm 1^{\circ}$  at any point.

The tube is normally supplied with a green phosphor (P1) having medium persistence characteristics. For special applications, however, the tube may be supplied with any of the standard phosphors described on the introductory page to this Section.

**RATING**

Heater Voltage (volts)	Vh	4.0
Heater Current (amps)	Ih	0.72
Maximum 1st Anode Voltage (volts)	Va1(max)	500
Maximum 2nd Anode Voltage (volts)	Va2(max)	1,000
Maximum 3rd Anode Voltage (volts)	Va3(max)	4,000
Average Sensitivity of "X" Plates (mm/V)		* 800/V
Average Sensitivity of "Y" Plates (mm/V)		* 800/V

\* There "V" denotes the voltage on the 3rd Anode.

**INTER-ELECTRODE CAPACITANCES.**

X1 Deflecting Plate/All other electrodes ( $\mu\text{F}$ )	Cx1,all	15.2
X2 Deflecting Plate/All other electrodes ( $\mu\text{F}$ )	Cx2,all	15.6
Y1 Deflecting Plate/All other electrodes ( $\mu\text{F}$ )	Cy1,all	14.9
Y2 Deflecting Plate/All other electrodes ( $\mu\text{F}$ )	Cy2,all	15.6
X1 Deflecting Plate/X2 Deflecting Plate ( $\mu\text{F}$ )	Cx1,x2	5.1
Y1 Deflecting Plate/Y2 Deflecting Plate ( $\mu\text{F}$ )	Cy1,y2	4.8
X1, X2 Deflecting Plates/Y1, Y2, Deflecting Plates ( $\mu\text{F}$ )	C(x1+x2) -(y1+y2)	2.9
Control Grid (Wehnelt)/All other electrodes ( $\mu\text{F}$ )	cg,all	9.8

**DIMENSIONS**

Maximum Overall Length (mm)	640
Maximum Diameter (mm)	312
Nominal Screen Diameter (inches)	12
Approximate Nett Weight (lbs)	7½
Approximate Packed Weight (lbs)	40

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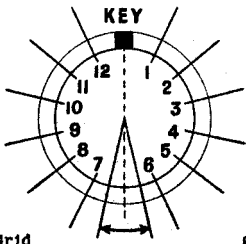
TYPICAL OPERATION

3rd Anode Voltage (volts)	Va3	2,200
2nd Anode Voltage - approximate for focus (volts) ‡	Va2	450
1st Anode Voltage (volts)	Va1	450
Negative Bias on control grid for cut-off of Beam Current (volts)	Vg	30-90

‡ The voltage required on the 2nd Anode for focus decreases with an increase of beam current and the above figure gives the voltage required at low currents.

BASE 12 Contact Key Base (BS.448)

VIEW OF FREE END



PERMISSIBLE ANGULAR VARIATION OF MOUNTS ±10°

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	Blank	-
Pin 8	Deflecting Plate Y2	y2
Pin 9	Deflecting Plate Y1	y1
Pin 10	Anode 3	a3
Pin 11	Deflecting Plate X1	x1
Pin 12	Deflecting Plate X2	x2

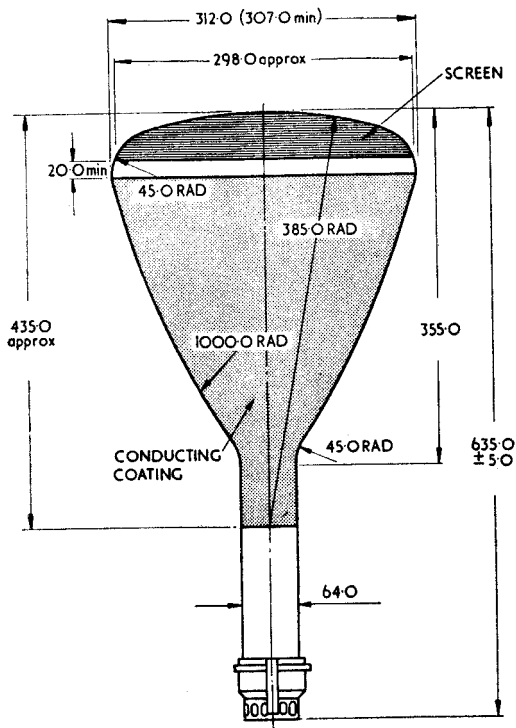
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All dimensions in mm.

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INDUSTRIAL  
VALVE & CRT DIVISION

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SIEMENS EDISON SWAN LIMITED