MAZDA
30.C.9

CATHODE RAY TUBE - ALL ELECTROSTATIC 7" Dia.
Indirectly heated—for measurements

RATING

Heater Voltage (volts) \( V_h \) 4.0
Heater Current (amps) \( I_h \) 0.72
Maximum 1st Anode Voltage (volts) \( V_{a1(\text{max})} \) 500
Maximum 2nd Anode Voltage (volts) \( V_{a2(\text{max})} \) 1,000
Maximum 3rd Anode Voltage (volts) \( V_{a3(\text{max})} \) 4,000
Average Sensitivity of "X" plates (mm/V) 520/V
Average Sensitivity of "Y" plates (mm/V) 520/V

* Where "V" denotes the voltage on the 3rd Anode.
All Maximum Ratings are Absolute values not Design Centres.

INTER-ELECTRODE CAPACITANCES

- X1 Deflecting Plate/all other electrodes (\( \mu \text{F} \)) \( C_{x1,\text{all}} \) 14.6
- X2 Deflecting Plate/all other electrodes (\( \mu \text{F} \)) \( C_{x2,\text{all}} \) 14.0
- Y1 Deflecting Plate/all other electrodes (\( \mu \text{F} \)) \( C_{y1,\text{all}} \) 14.9
- Y2 Deflecting Plate/all other electrodes (\( \mu \text{F} \)) \( C_{y2,\text{all}} \) 13.8
- X1 Deflecting Plate/Y2 Deflecting Plate (\( \mu \text{F} \)) \( C_{x1,x2} \) 4.5
- Y1 Deflecting Plate/Y2 Deflecting Plate (\( \mu \text{F} \)) \( C_{y1,y2} \) 4.4
- X1+X2 Deflecting Plates/Y1+Y2 Deflecting Plates (\( \mu \text{F} \)) \( C_{(x1+x2)} \) \( (y1+y2) \) 2.7
- Control Grid (Wehnelt)/All other electrodes (\( \mu \text{F} \)) \( C_{g,\text{all}} \) 8.6

DIMENSIONS

- Maximum Overall Length (mm) 495
- Maximum Diameter (mm) 195
- Nominal Screen Diameter (inches) 7
- Approximate Net Weight (lbs) 24
- Approximate Packed Weight (lbs) 114

NOTES

The 30.C.9 is a precision constructed instrument for applications where the accuracy of the gun construction employed in compass tubes is required without the provision of scales.

The gun system is capable of providing the high beam currents when pulse modulation of the grid is required.

For general measurement work the 30.C.9/P1 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 in this section.
MAZDA
30.C.9
CATHODE RAY TUBE - ALL ELECTROSTATIC. 7" Dia
Indirectly heated—for measurements

TYPICAL OPERATION

3rd Anode Voltage (volts) \( V_a3 \) 2,200
2nd Anode Voltage—approximate for focus (volts) \( V_a2 \) 440
1st Anode Voltage (volts) \( V_a1 \) 450
Negative Bias on Control Grid for cut-off of Beam Current (volts) \( V_g \) 30-90

\( \dagger \) 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 current.

BASE 12 contact Key Base
(RS.448)

VIEW OF FREE END

PERMISSIBLE ANGULAR VARIATION OF MOUNTS ± 10°

CONNECTIONS

Pin 1 Control Grid \( x \)
Pin 2 Cathode \( a \)
Pin 3 Heater \( h \)
Pin 4 Heater \( h \)
Pin 5 Anode 1 \( a1 \)
Pin 6 Anode 2 \( a2 \)
Pin 7 —
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 \( X2 \)

February 1954
THE EDISON SWAN ELECTRIC COMPANY LTD.
EDISWAN

30C9

CATHODE RAY TUBE—ALL ELECTROSTATIC 7" Dia.
Indirectly heated—for measurements

All dimensions in mm.

June 1959

INDUSTRIAL
VALVE & CRT DIVISION

SIEMENS EDISON SWAN LIMITED