

# EDISWAN

MAZDA

30B1

30B1

## CATHODE RAY TUBE—ALL ELECTROSTATIC 3 $\frac{1}{2}$ " Dia.

Indirectly heated high grade precision measurement cathode ray tube with a 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</sub> (max) | 2,500   |
| Maximum 2nd Anode Voltage (volts)           | V <sub>a2</sub> (max) | 1,000   |
| Maximum 3rd Anode Voltage (volts)           | V <sub>a3</sub> (max) | 6,000   |
| Average Sensitivity of "X" Plates<br>(mm/V) |                       | • 360/V |
| Average Sensitivity of "Y" Plates<br>(mm/V) |                       | • 800/V |

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

### INTER-ELECTRODE CAPACITANCES

|   |                     |      |
|---|---------------------|------|
| X1 Deflecting Plate/All other electrodes ( $\mu$ F)       | C <sub>x1,all</sub> | 15.0 |
| X2 Deflecting Plate/All other electrodes ( $\mu$ F)       | C <sub>x2,all</sub> | 15.0 |
| Y1 Deflecting Plate/All other electrodes ( $\mu$ F)       | C <sub>y1,all</sub> | 14.5 |
| Y2 Deflecting Plate/All other electrodes ( $\mu$ F)       | C <sub>y2,all</sub> | 14.5 |
| X1 Deflecting Plate/Y1 Deflecting Plate ( $\mu$ F)        | C <sub>x1,y1</sub>  | 1.5  |
| X1 Deflecting Plate/Y2 Deflecting Plate ( $\mu$ F)        | C <sub>x1,y2</sub>  | 1.0  |
| X2 Deflecting Plate/Y1 Deflecting Plate ( $\mu$ F)        | C <sub>x2,y1</sub>  | 1.0  |
| X2 Deflecting Plate/Y2 Deflecting Plate ( $\mu$ F)        | C <sub>x2,y2</sub>  | 1.25 |
| Control Grid (Wehnelt)/All other electrodes<br>( $\mu$ F) | C <sub>g,all</sub>  | 9.5  |

### DIMENSIONS

|                                  |                  |
|----------------------------------|------------------|
| Maximum Overall Length (mm)      | 340              |
| Maximum Diameter (mm)            | 90               |
| Nominal Screen Diameter (inches) | 3 $\frac{1}{2}$  |
| Approximate Nett Weight (ozs)    | 21               |
| Approximate Packed Weight (lbs)  | 10 $\frac{1}{2}$ |

### NOTES

For general measurement work the 30.B.1/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 to this Section.

Final Anode and Bulb coating are brought out separately in order to enable a finer spot or a higher writing speed to be obtained by increasing the Final Anode voltage above the limit set for the 1st Anode Voltage.

In use the 3rd Anode and bulb coating are normally joined.

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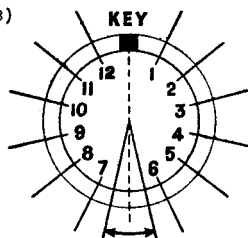
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CATHODE RAY TUBE—ALL ELECTROSTATIC 3½" Dia.

Indirectly heated high grade precision measurement cathode ray tube with a polished flat face.

TYPICAL OPERATION

|  |     |       |       |
|--|-----|-------|-------|
| 3rd Anode Voltage (volts)  | Va3 | 2,000 | 5,000 |
| 2nd Anode Voltage - approximate, for focus (volts)               | Va2 | 440   | 800   |
| 1st Anode Voltage (volts)  | Va1 | 2,000 | 2,000 |
| Average Bias on Control Grid for Cut-off of Beam Current (volts) | Vg  | -60   | -60   |
| Average Working Bias for 20µA Beam (volts)                       |     | -33   | -33   |
| Approximate Sensitivity of "X" Plates (mm/V)                     |     | 0.20  | 0.08  |
| Approximate Sensitivity of "Y" Plates (mm/V)                     |     | 0.30  | 0.12  |

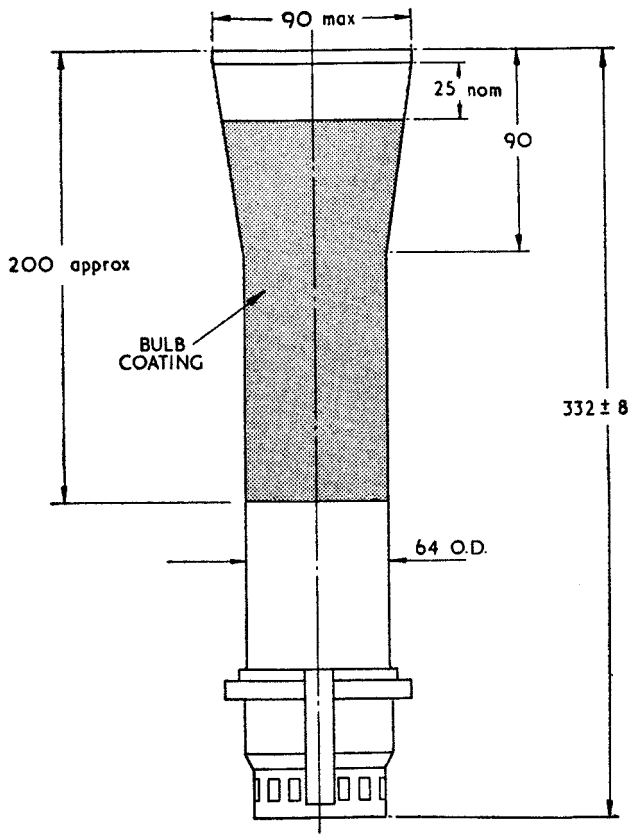
BASE 12 Contact Key Base (BS.448)VIEW OF FREE ENDPERMISSIBLE ANGULAR VARIATION OF MOUNTS ± 10°CONNEXIONS

|        |                     |    |
|--------|---------------------|----|
| 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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Indirectly heated high grade precision measurement  
cathode ray tube with a polished flat face



All dimensions in mm.

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INDUSTRIAL  
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