

TRIODE TYPE

## 5734

MECHANO-ELECTRONIC TRANSDUCER

GENERAL DATA
Electrical:
Heater, for Unipotential Cathode: Voltage6.3ac or dc volts Current0.15amp
Mechanical:
Mounting Position
Lead 4 - Heater 49 7 65 Lead 7 - Cathode, Internal
Lead 5-Grid $\left(\begin{array}{c} \bot \\ \end{array}\right)$ $^{6}$ Shield
Lead 6 - Heater Shell - Plate
Maximum Ratings, Design-Center Values:
DC PLATE—SUPPLY VOLTAGE 300 max volts DC PLATE CURRENT 5 max ma PLATE DISSIPATION 0.4 max watt PEAK HEATER—CATHODE VOLTAGE: Heater negative with
respect to cathode 90 max volts Heater positive with respect to cathode 90 max volts
Typical Operation:
DC Plate—Supply Voltage
Moment of Inertia of Plate of Plate
Average change in voltage across 75000—ohm plate—load resistor when the plate shaft is deflected from -0.5 to +0.5 degree. The plane of deflection of the plate shaft must coincide with the plane through terminal No.5 and the axis of the tube.
Based on external plate—shaft length of 1/8" and the center of the dia- phragm as pivot.
NOV. 15, 1948 TUBE DEPARTMENT TENTATIVE DATA



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### OPERATING PRINCIPLES

The plate shaft extends through the center of a thin metal diaphragm. Angular displacement of the plate shaft changes the distance between the fixed grid and the plate and results in a change in the plate current. The plane of deflection of the plate shaft coincides with the plane through terminal No.5 and the axis of the tube.

The part of the plate shaft within the tube has a minimum free cantilever resonance of 12000 cycles per second permitting, with suitable mechanical coupling to the external end of the plate shaft, measurements of vibration up to 12000 cycles per second.

### OPERATING NOTES

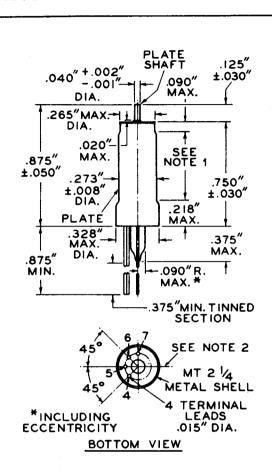
The 5734 may be mounted by means of a supporting clamp which should firmly grip the metal shell of the tube within the designated clamping space indicated on the Outline Drawing. It is essential, however, that the pressure exerted on the shell by the clamp be held to a minimum to prevent possible fracture of the seals.

Under no circumstances should the plate shaft be displaced from its normal position by more than 0.5 degree. A larger displacement of the plate shaft will distort the flexible diaphragm and may damage the tube electrodes.

A non-corrosive flux must be used in soldering the actuating stylus to the plate shaft. Unless this precaution is observed, the plate shaft and the diaphragm will be damaged.

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NOTE I: TUBE SUPPORTING CLAMP ON METAL SHELL MUST BE WITHIN THIS SPACE, AND SHOULD BE FASTENED ONLY TIGHT ENOUGH TO INSURE GOOD CONTACT FOR THE PLATE CONNECTION.

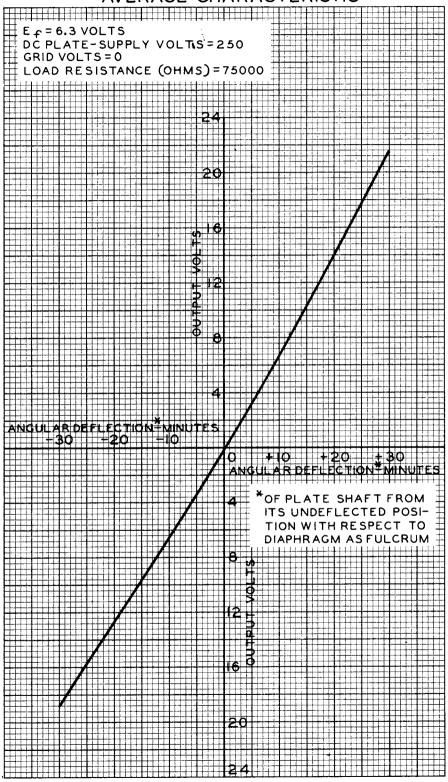
NOTE 2: THE PLANE OF DEFLECTION OF THE PLATE SHAFT WILL COINCIDE WITH THE PLANE THROUGH TERMINAL LEAD No.5 AND THE AXIS OF THE TUBE.

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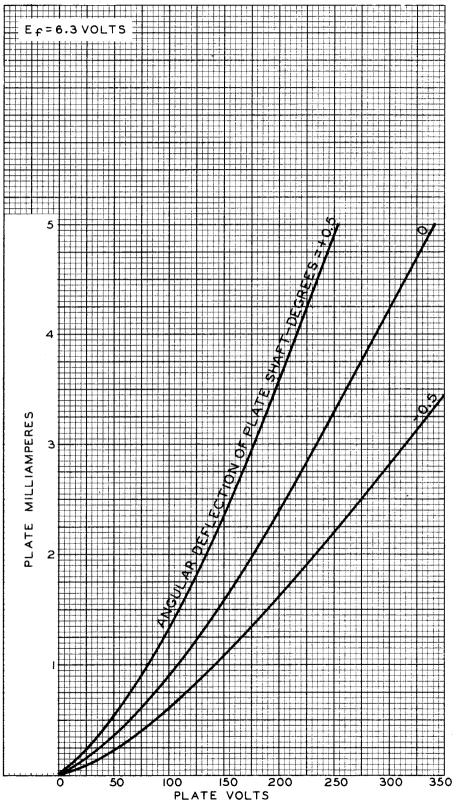


### AVERAGE CHARACTERISTIC





# AVERAGE CHARACTERISTICS



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### AVERAGE CHARACTERISTICS

