# MAZDA

## AC/P

## A.C. Mains Power Valve


### RATING.

| | |
|---|---|
| Filament Voltage ... ... ... ... | 4.0 |
| Filament Amps. (approx.) ... ... ... | 1.0 |
| Maximum Anode Voltage ... ... ... | 200 |
| Maximum Anode Current (mA) ... ... | 25 |
| *Mutual A.C. Conductance (mA/Volt) ... | 3.75 |
| *Amplification Factor ... ... ... | 10 |
| *Anode A.C. Resistance (ohms) ... ... | 2,650 |

* *at* $Ea=100$ ; $Eg=0$.

### DIMENSIONS.

| | |
|---|---|
| Maximum overall length (including pins) | 122 m.m. |
| Maximum diameter ... ... ... | 56 m.m. |

PRICE ~~17/6~~ ~~15/-~~ 14/-

### GENERAL.

The Mazda AC/P Valve is an indirectly-heated valve of extreme sensitivity, capable of delivering a high power output without distortion. It has been primarily designed for use in the last stage of receivers operating from alternating current electric light mains through a stepdown transformer.

The cap on this valve is provided with five pins ; the centre pin is connected to the cathode, whilst the two normal filament pins are connected to the heater. As the pins are solid a valve holder with resilient sockets must be employed.

The windings of the filament transformer supplying 4 volts to the heater should be so designed that this voltage never varies more than ± 5% under working conditions.

### APPLICATION.

**Low-Frequency Amplifier.**

The AC/P may be used as an L.F. amplifier with either transformer or choke coupling when it is desired to supply a high power output valve requiring a large grid swing.


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**EDISWAN**

# MAZDA AC/P

**Output Valve.**

Owing to its very high amplification factor, coupled with a very high mutual conductance, the valve may be used directly after the detector valve. It is capable of delivering a large volume of sound with a cone speaker and has adequate output for moving-coil speakers.

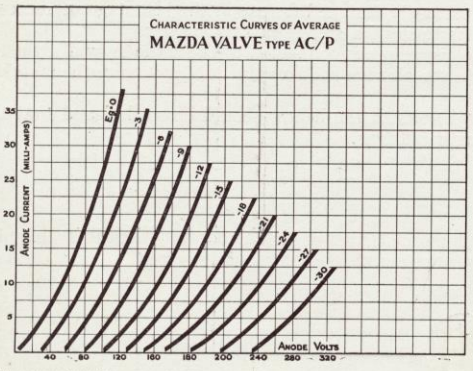
The AC/P may also be used as a detector either with cumulative-grid or anode-bend rectification.

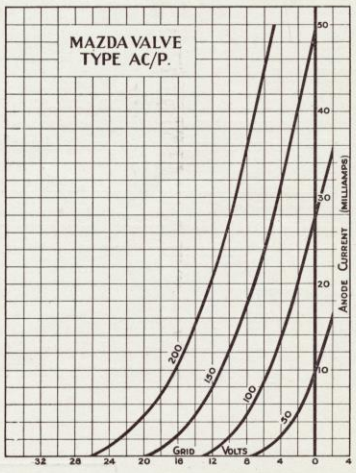
**GRID BIAS.**

Unless the valve is used as cumulative-grid detector, grid bias must always be used. This grid bias may be obtained either by the semi-automatic or self-biasing system. The table below may be used as a rough guide when selecting the bias required.

| | | | | |
|---|---|---|---|---|
| Anode Volts ... ... ... ... ... | 100 | 125 | 150 | 200 |
| Grid Bias as Amplifier ... ... ... ... | –6 | –7.5 | –9 to –12 | –15 |
| Grid Bias as Anode-Bend Detector ... ... | –9 | — | — | — |

The anode current must never be allowed to exceed 25 mA.
When using the AC/P with resistance-capacity coupling the resistance in the grid circuit should not exceed $\frac{1}{2}$ megohm.

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