

# FOREWORD

Marconi Valves are designed by wireless experts—the men who made wireless, the men responsible for to-day's progress in wireless.

A moment's comparison demonstrates their superior efficiency throughout the range, shown by the lower impedances or higher magnification factors. Actual experience confirms their absolute dependability and uniformly long life.

The first thermionic valve; the first dull-emitter; the first power valve; the first British A.C. valves; the first practical screen-grid valve; each and all have been identified with the name of Marconi. And now once again this untiring research benefits users of Marconi valves with improved characteristics for the standard "Economy" range, new Screen-grid types, Pentode Power Valves, Super-power Valves and directly heated A.C. Valves.

Marconi Valves have indeed passed from superiority to supremacy, offering an unapproached range suitable for every radio purpose—each type the best of its kind.

The principal broadcasting and experimental stations throughout the World are equipped with Marconi valves. Wherever absolute reliability is essential, Marconi Valves are used. Despite their exceptional efficiency there is nothing freakish, nothing which experience has not approved of; every Marconi Valve is perfectly dependable and upholds the best British standards.





# MARCONI VALVE

for use with 2-volt Accumulator.

## TYPE S 215

SCREENED GRID HIGH FREQUENCY AMPLIFYING VALVE.



The S 215 is a specially designed high frequency amplifying valve, having four electrodes, in which the inter-electrode capacity effect, so detrimental to high frequency amplification, has been nullified by the introduction of a screening grid. The anode is connected to a terminal on the top of the valve and the screen grid to the ordinary anode pin of the valve cap.

When used in a suitable circuit and under the conditions specified on the following page a greater magnification per stage can be obtained than when using ordinary three electrode valves in a stabilised circuit.

Filament Volts	...	...	2.0 max.
Filament Current	...	...	0.15 amps.
Anode volts...	...	...	100 to 150 max.
Screen Grid Volts	...	...	60 to 90 max.
*Amplification Factor	...	...	170
*Impedance	...	...	200,000 ohms.
*Normal Slope...	...	...	.85 Ma/v.
*At Anode Volts 120, Screen Grid Volts 80, Grid Volts 0 to -1.			

Price, 22/6.

Approximate Overall Dimensions,

136 × 44 m/m.

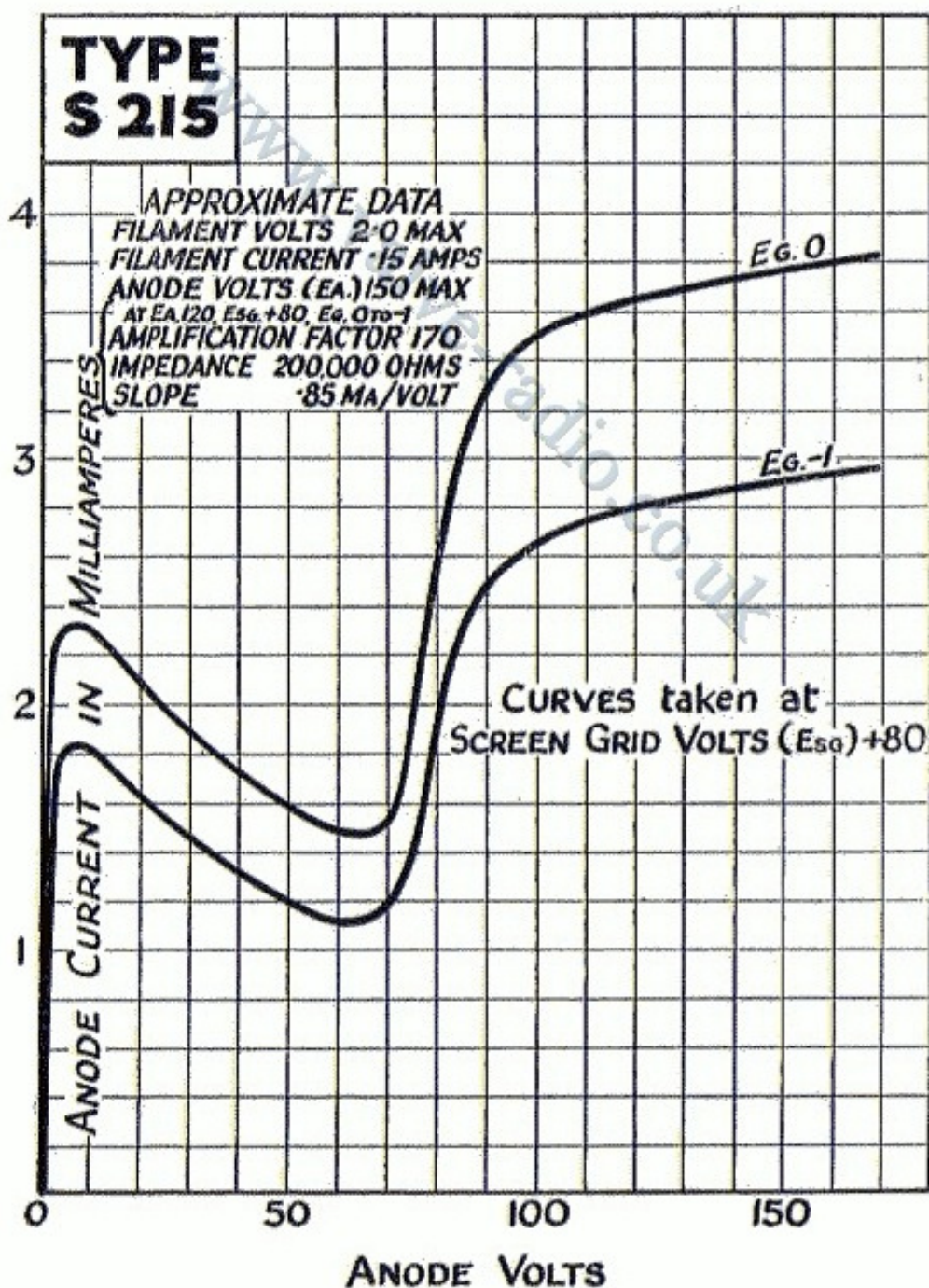


# MARCONI VALVES

## TYPE S 215

*Approximate Operating Data—Neglecting Resistance of Output Circuit.*

Anode Volts	Negative Grid Bias Volts	Screen Grid Volts
120	0 to $1\frac{1}{2}$	80



*Characteristic Curve of Average S 215 Valve.*



# MARCONI VALVES

for use with 2-volt Accumulator

## TYPES DEH 210 AND DEL 210



Approximate Overall Dimensions,  
95 × 41 mm

### TYPE DEH 210

Fil. Volts..... 2.0 max.  
Fil. Current..... 0.1 amp.  
Anode Volts..... 150 max.  
\*Amp. Factor .....35  
\*Impedance...50,000 ohms.  
\*Normal Slope... .7 Ma/v.  
\*At Anode Volts 100

Grid Volts 0

Price, 10/6

### TYPE DEL 210

Fil. Volts..... 2.0 max.  
Fil. Current..... 0.1 amp.  
Anode Volts..... 150 max.  
\*Amplification Factor...11  
\*Impedance 12,000 ohms.  
\*Normal Slope... .9 Ma/v.  
\*At Anode Volts 100

Grid Volts 0

Price, 10/6

### TYPE DEH 210

DULL EMITTER-RESISTANCE CAPACITY AMPLIFYING  
AND DETECTOR VALVE

A highly efficient dull emitter valve, having a very high Amplification Factor, making it suitable for the following purposes:

1. In resistance-capacity coupled amplifiers, except in the last stages, where types DEL 210 or DEP 215 should be used.
2. As a detector valve, either with grid leak and condenser or for anode bend rectification, when followed by resistance capacity coupling.
3. In high frequency amplifiers, where a circuit with some form of stabilising or damping is employed.

The maximum filament voltage is 2.0 and this figure should not be exceeded.

### TYPE DEL 210

DULL EMITTER GENERAL PURPOSE VALVE

A highly efficient dull emitter valve, having characteristics which make it very suitable for the following purposes:

1. In High Frequency amplifiers preferably where a circuit with some method of stabilising or damping is employed.
2. As a Detector valve using grid leak and condenser.
3. In transformer or choke coupled Low Frequency amplifiers, in all stages except the last, where a DEP 215 or DEP 240 power valve should be used.

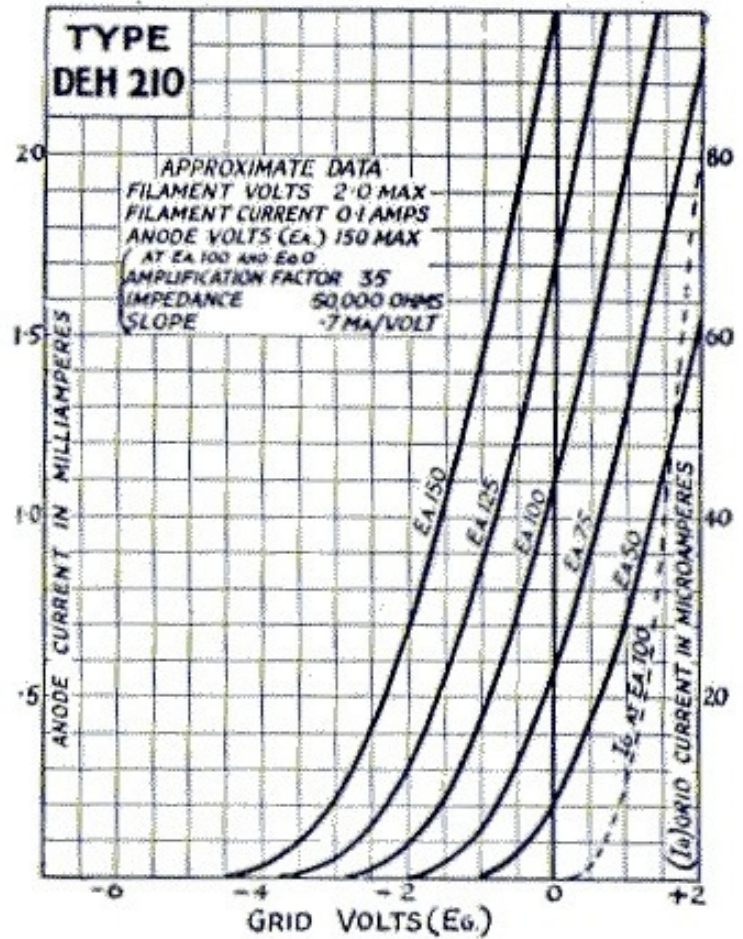
The maximum filament voltage is 2.0 and this figure should not be exceeded.



### TYPE DEH 210

*Approximate Operating Data—Neglecting Resistance of Output Circuit.*

Anode Volts.	Grid Bias Volts.
120-150	<b>In Resistance Coupled Amplifier:</b> -1½
50-150	<b>As Grid Leak Detector:</b> Connect grid leak to positive end of filament.
75-150	<b>As Anode Bend Detector:</b> -1½ to -3
75-150	<b>In High Frequency Amplifier:</b> Positive, zero or negative according to method of stabilising or damping circuit.

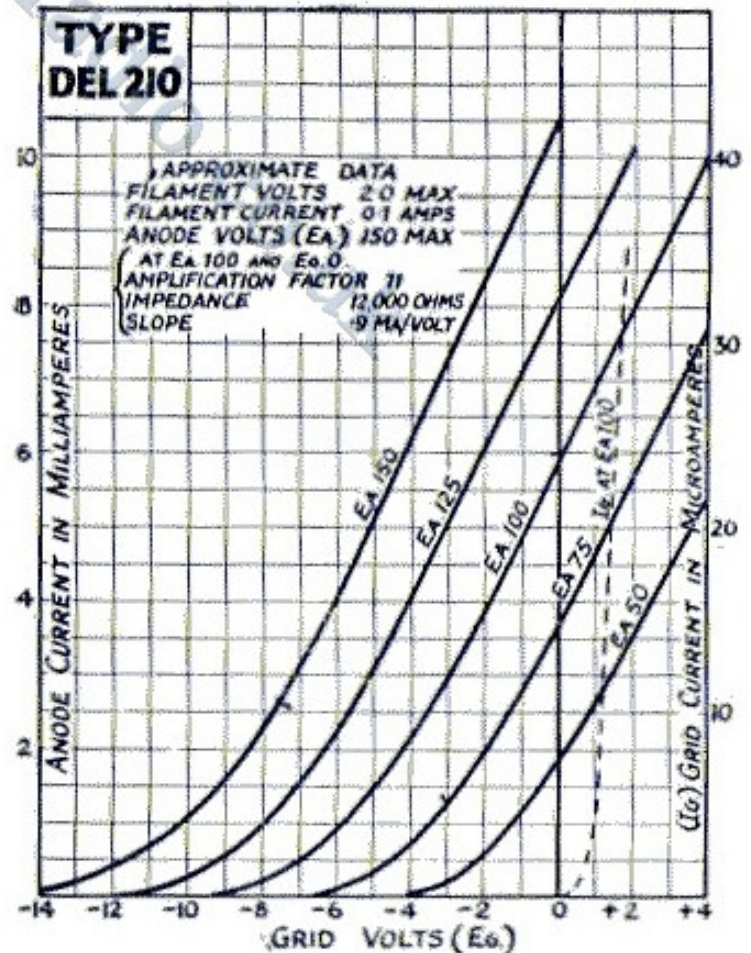


*Characteristic Curve of Average DEH 210 Valve*

### TYPE DEL 210

*Approximate Operating Data—Neglecting Resistance of Output Circuit.*

Anode Volts.	Grid Bias Volts.
50-150	<b>In High Frequency Amplifier:</b> Positive, zero or negative according to method of stabilising or damping circuit.
50-150	<b>As Grid Leak Detector:</b> Connect grid leak to positive end of filament.
75-150	<b>In Low Frequency Amplifier:</b> -3 to -7½.



*Characteristic Curve of Average DEL 210 Valve*

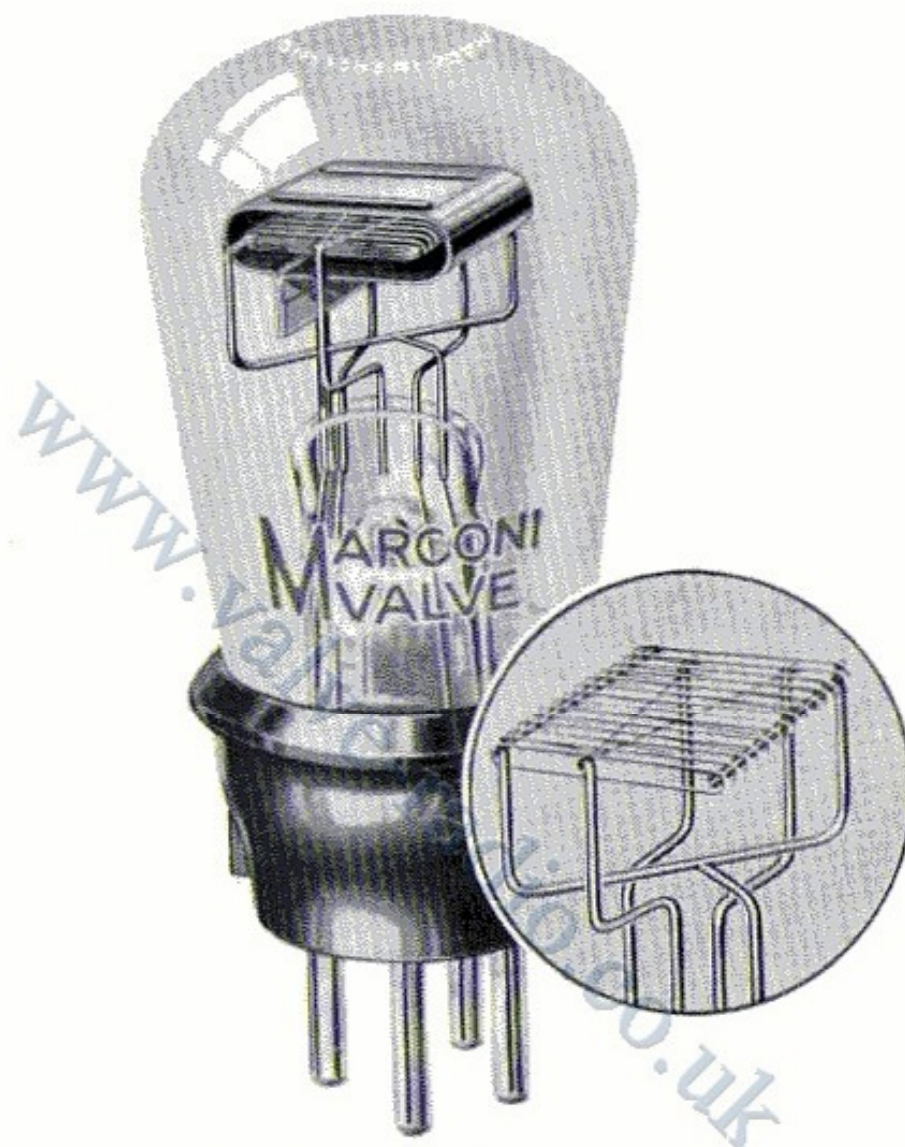


# MARCONI VALVES

for use with 2-volt Accumulator

## TYPE HL 210

DULL EMITTER, H.F. DETECTOR AND L.F. AMPLIFYING VALVE.



*Approximate Overall Dimensions,*

*95 × 41 mm.*

Fil. Volts .....2.0 max.  
Fil. Current .....0.1 amps.  
Anode Volts .....150 max.  
\*Amp. Factor .....20  
\*Impedance 23,000 ohms.  
\*Normal Slope .87 Ma/v.  
\*At Anode Volts 100  
Grid Volts 0

The HL 210 is a very efficient Dull Emitter valve, having characteristics which make it suitable for the following purposes :

1. In High Frequency Amplifiers, where a circuit with some method of stabilising or damping is employed.
2. As a Detector Valve.
3. In Transformer or Choke-coupled Low Frequency Amplifiers, except in the last stage, where a DEP 215 or DEP 240 power valve should be used.

**Price, 10/6**

The maximum filament voltage is 2.0 and this figure should not be exceeded.

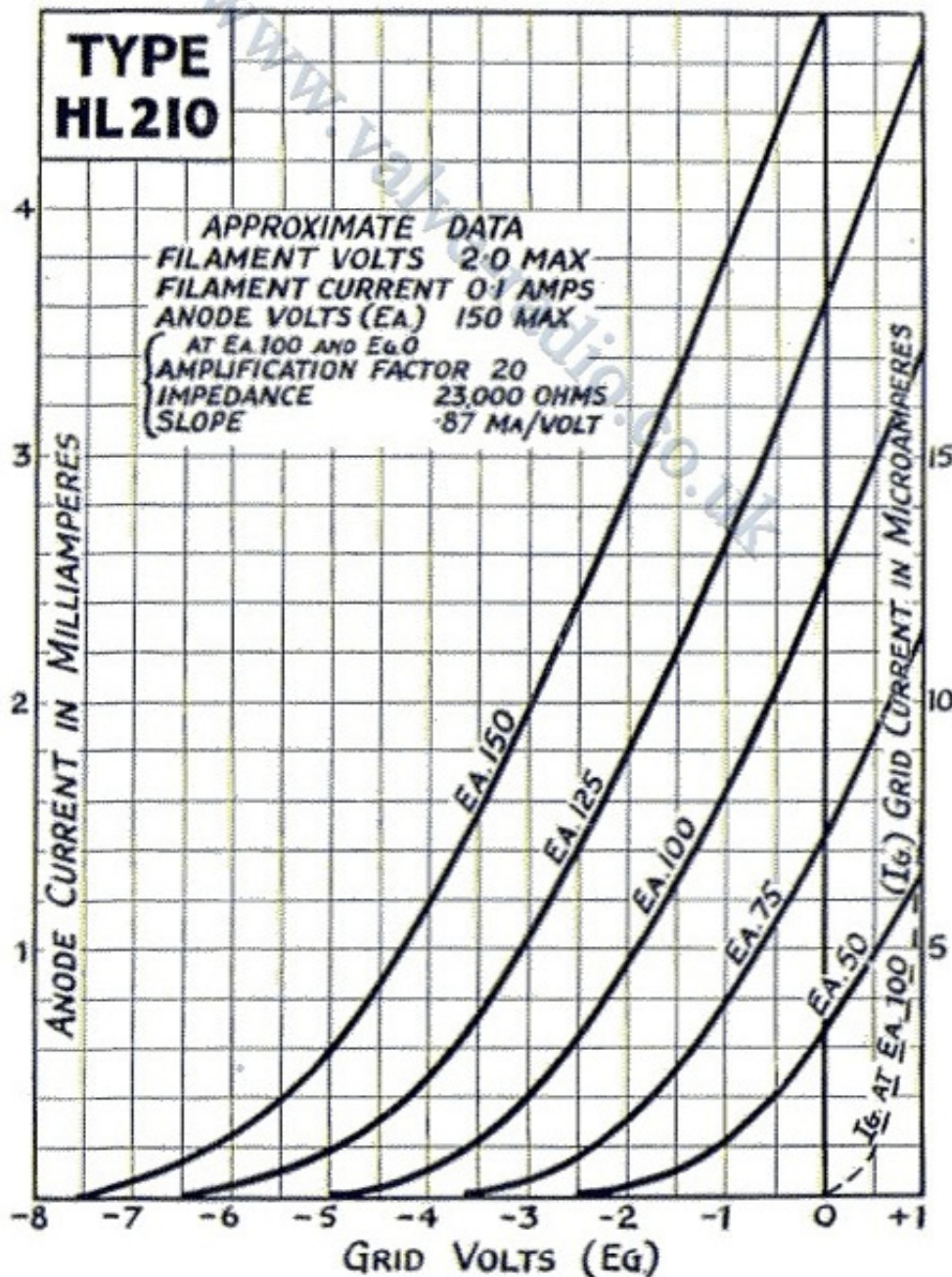


# MARCONI VALVE

## TYPE HL 210

*Approximate Operating Data—Neglecting Resistance of Output Circuit.*

	Anode Volts	Grid Bias Volts
In High Frequency Amplifier	50-150	Positive, zero or negative, according to method of stabilising or damping circuit.
As Grid Leak Detector	50-150	Connect grid leak to positive end of filament.
As Anode Bend Detector	50-150	$-1\frac{1}{2}$ to $-6$
In Low Frequency Amplifier	75-150	$-1\frac{1}{2}$ to $-4$



*Characteristic Curve of average HL 210 Valve.*

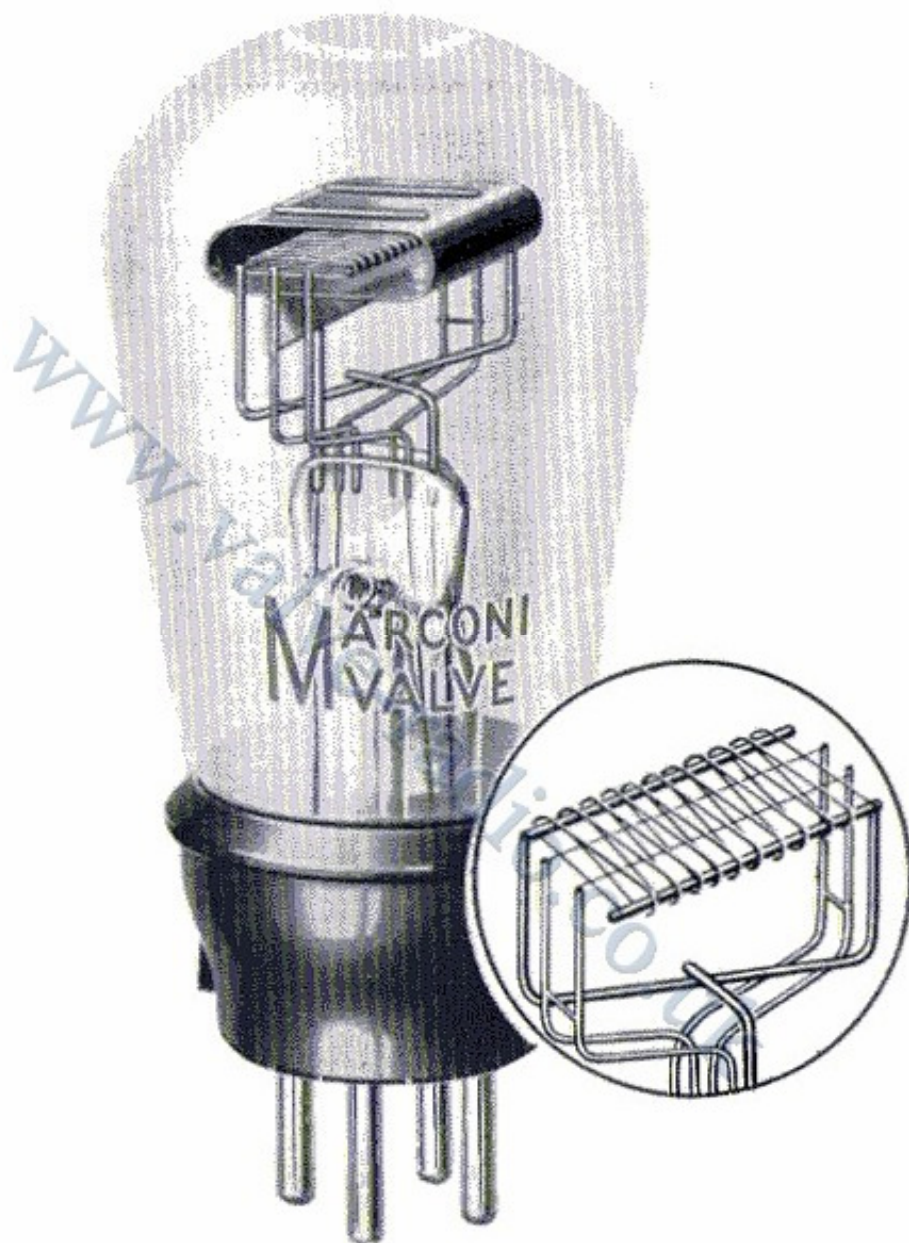


# MARCONI VALVES

for use with 2-volt Accumulator

## TYPE DEP 215

DULL EMITTER, LOW FREQUENCY POWER AMPLIFYING VALVE.



*Approximate Overall Dimensions,*

$103 \times 40 \text{ m/m.}$

Fil. Volts .....2.0 max.  
Fil. Current .....0.15 amps  
Anode Volts .....150 max.  
\*Amp. Factor .....7  
\*Impedance ...5,000 ohms.  
\*Normal Slope 1.4 Ma/v.  
\*At Anode Volts 100  
Grid Volts 0

**Price 12/6.**

The DEP 215 is a low frequency power amplifying valve designed for use in the last stages of sets operating from a 2 volt accumulator.

The maximum filament voltage is 2.0 and this figure should not be exceeded.



# MARCONI VALVES

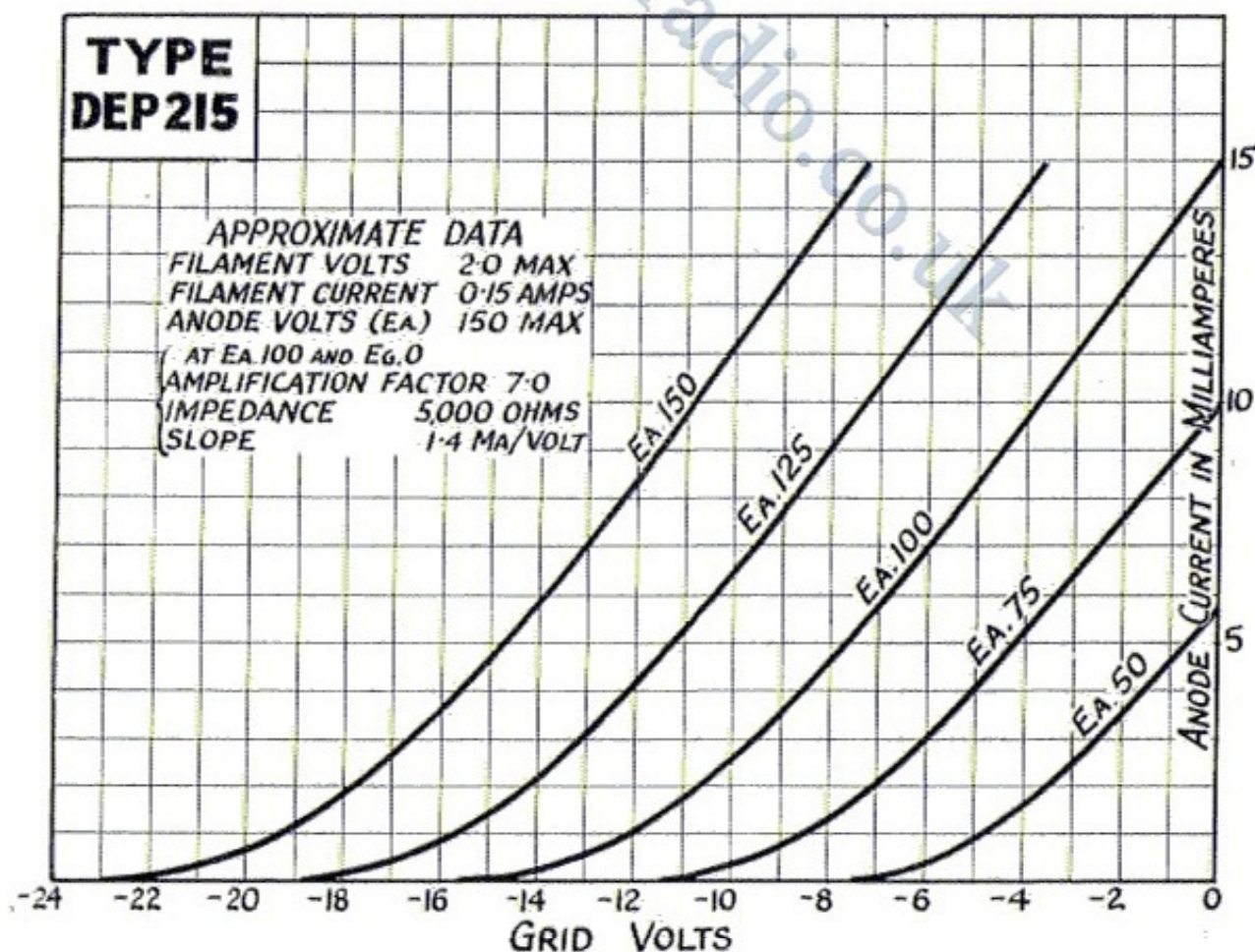
## TYPE DEP 215

Type DEP 215 has exceptionally good characteristics, and if used under the conditions given below will give great amplification without distortion.

*Approximate Operating Data—Neglecting Resistance of Output Circuit.*

Anode Volts.	Negative Grid Bias Volts.	Average Anode Current in Milliamperes.
75	4½	4.5
100	7½	5.0
125	10½	6.0
150	12	8.5

When used in the last stage of a 2 or 3 valve amplifier, it is desirable to employ a high tension battery voltage of 120/150 to ensure complete absence of distortion. If used as a low frequency amplifier in stages preceding the last position, about 75 to 100 volts H.T. is suitable. In all cases the requisite grid bias as shown in the above table should be employed.



*Characteristic Curve of Average DEP 215 Valve.*

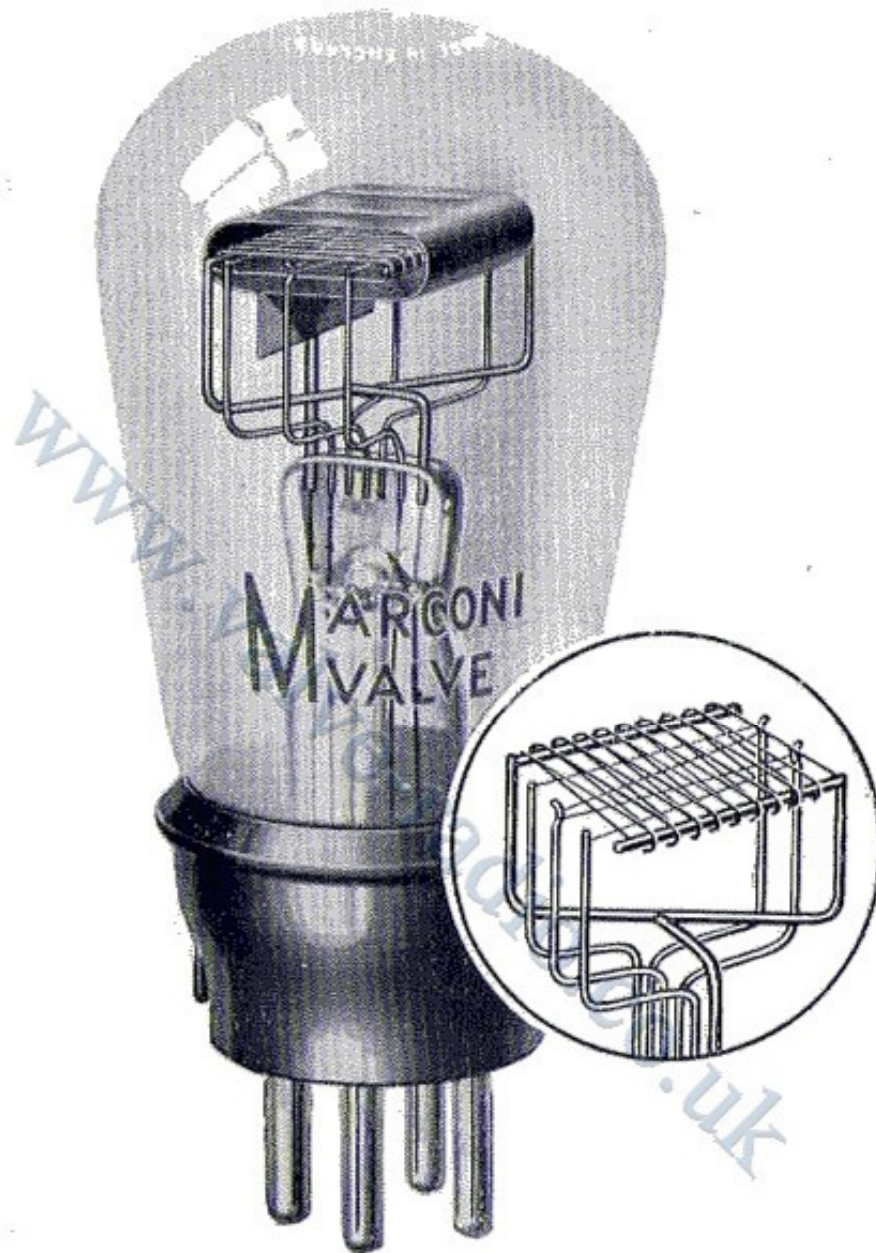


# MARCONI VALVES

for use with 2-volt Accumulator

## TYPE DEP 240

DULL EMITTER, LOW FREQUENCY POWER AMPLIFYING VALVE.



*Approximate Overall Dimensions,  
103 × 46 m/m.*

Fil. Volts .....2.0 max.  
Fil. Current .....0.4 amps.  
Anode volts .....150 max.  
\*Amp. Factor .....4  
\*Impedance 2,500 ohms.  
\*Normal Slope 1.6 Ma/v.  
\*At Anode Volts 0  
Grid Volts 0

Price, 15/-

The DEP 240 is a low frequency power amplifying valve of the super power class, designed for use in the last stage of sets operating from 2-volt accumulators.

The valve has exceptionally good characteristics and when used with the correct values of anode voltage and negative grid bias will give a distortionless output sufficient for operating loud speakers of the larger type.

The maximum filament voltage is 2.0 and this figure should not be exceeded.



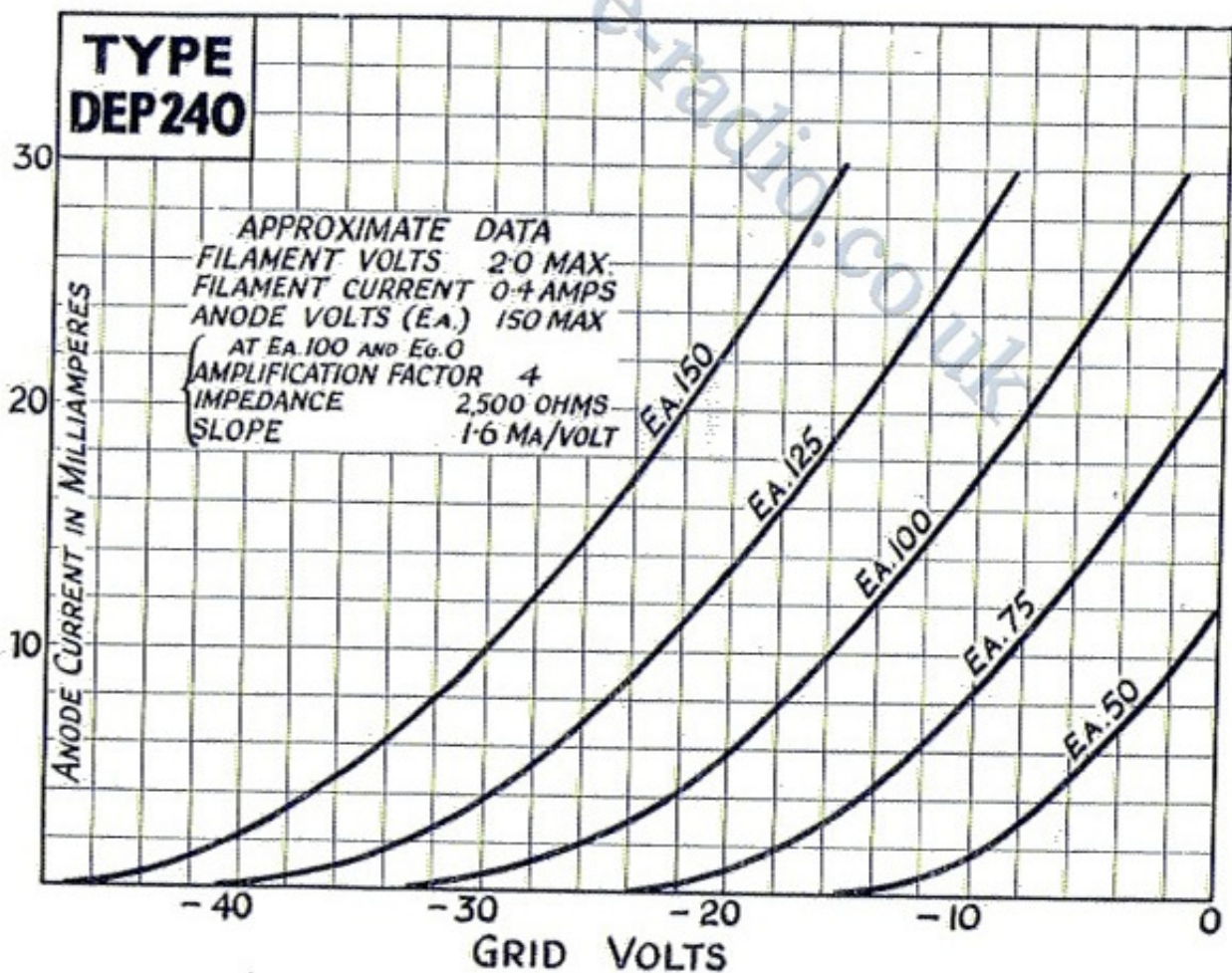
# MARCONI VALVES

## TYPE DEP 240

To avoid distortion and to obtain the best results consistent with economy of high tension current the valve should be used under the conditions given below.

*Approximate Operating Data—Neglecting Resistance of Output Circuit.*

Anode Volts	Negative Grid Bias Volts	Average Anode Current in Milliamperes
150	24	17
125	19.5	14
100	15	11



*Characteristic Curve of Average DEP 240 Valve.*



# MARCONI VALVES

for use with 4-volt Accumulator.

## TYPE S 410

SCREEN GRID, HIGH-FREQUENCY AMPLIFYING VALVE.



The S 410 is a specially designed high frequency amplifying valve having four electrodes, in which the inter-electrode capacity effect so detrimental to high frequency amplification has been nullified by the introduction of a screening grid. The anode is connected to a terminal on the top of the valve and the screen grid to the ordinary anode pin of the valve cap.

When used in a suitable circuit, a greater magnification per stage can be obtained than when using ordinary three electrode valves in a stabilised circuit.

A typical adjustment of electrode potentials is given below.

Anode Volts	Negative Grid Bias Volts.	Screen Grid Volts
120	0 to $1\frac{1}{2}$	80

Filament Volts	...	...	4.0 max.
Filament current	...	...	0.1 amp.
Anode Volts...	...	100 to 150 max.	
Screen Grid Volts	...	60 to 90 max.	
*Amplification Factor	...	180	
*Impedance	...	200,000 ohms.	
*Normal Slope	...	...	.9 Ma/v.
*At Anode Volts 120, Screen Grid Volts 80, Grid Volts 0 to -1.			

Approximate Overall Dimensions,

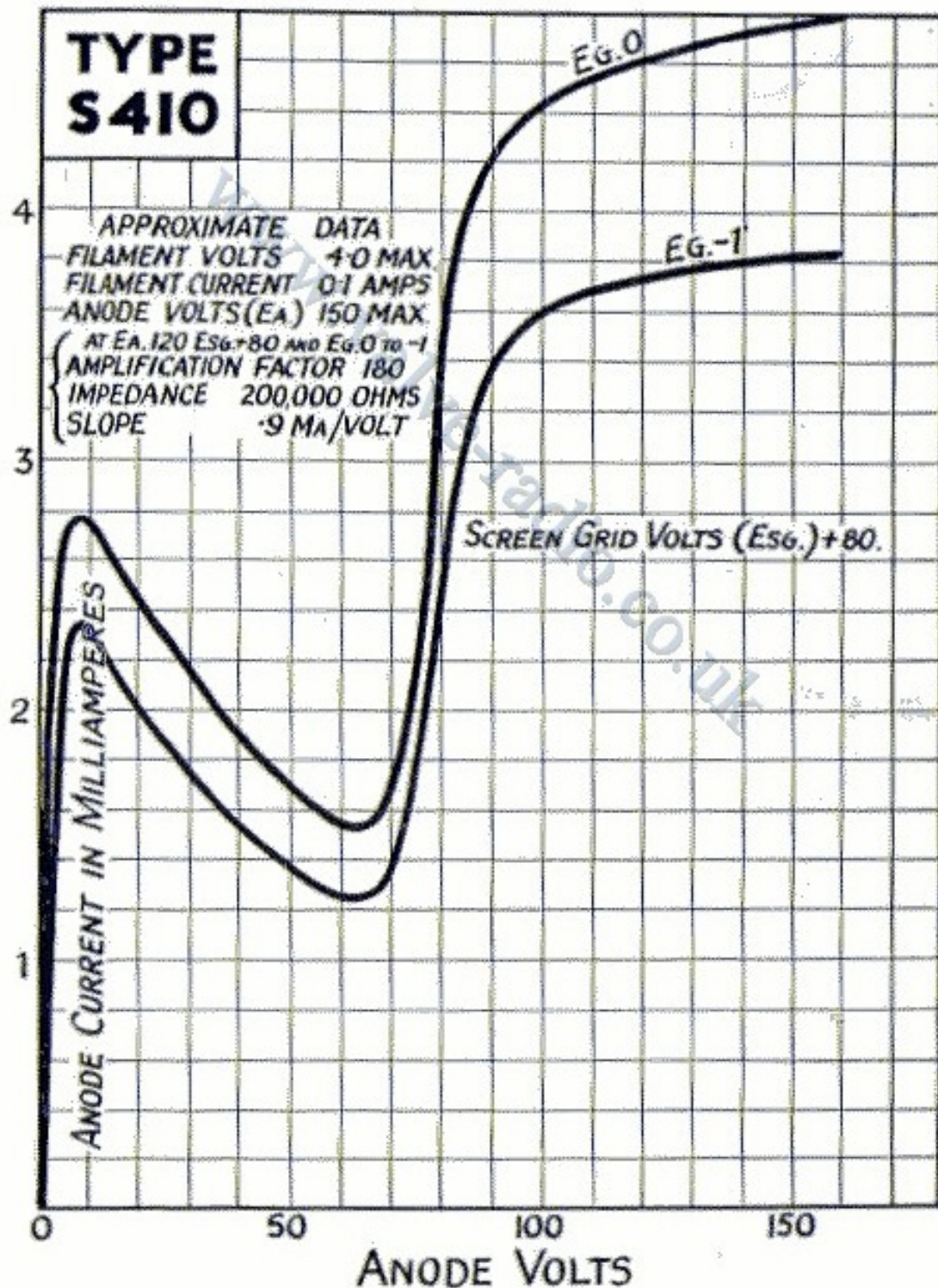
136 × 44 m/m.

Price, 22/6



# MARCONI VALVES

## TYPE S 410



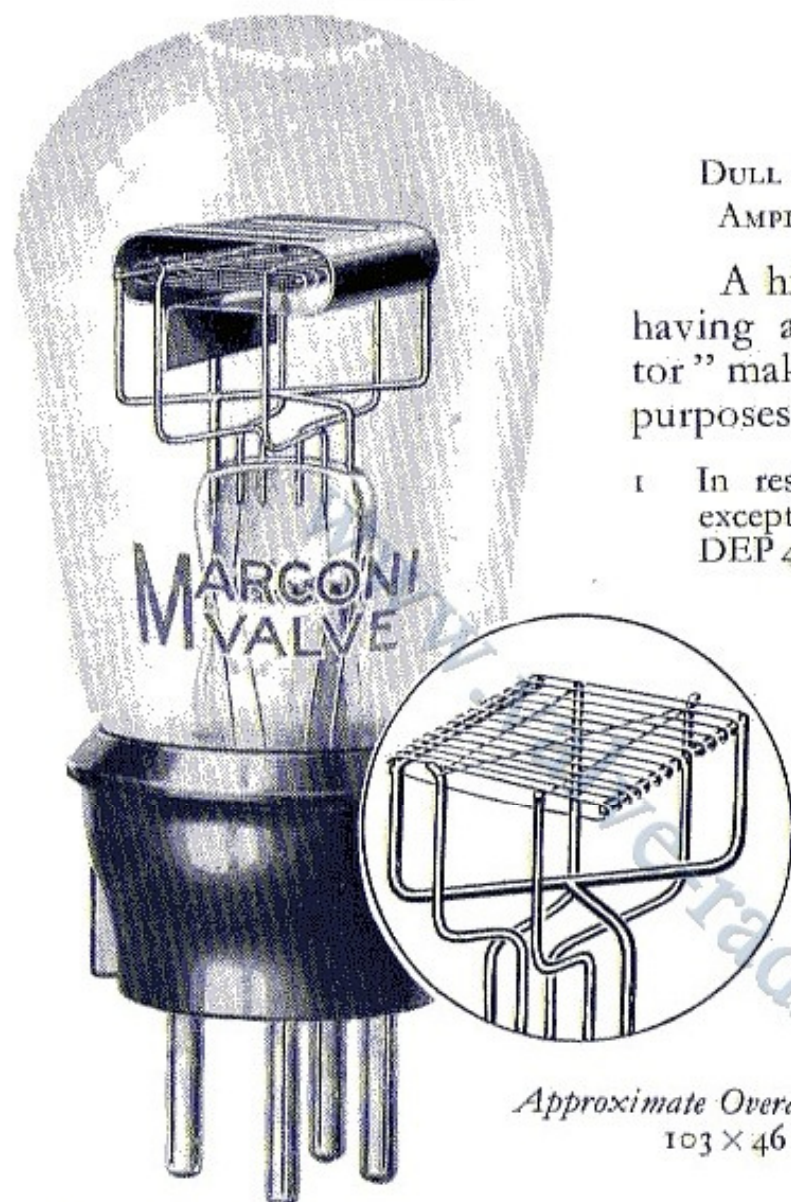
*Characteristic Curve of Average S 410 Valve.*



# MARCONI VALVES

for use with 4-volt Accumulator

## TYPES DEH 410 AND DEL 410



### TYPE DEH 410

DULL EMITTER, RESISTANCE CAPACITY  
AMPLIFYING AND DETECTOR VALVE.

A highly efficient dull emitter valve, having a very high "amplification factor" making it suitable for the following purposes :

1. In resistance capacity coupled amplifiers, except in the last stages, where types DEL 410, DEP 410 or P 425 should be used.
2. As a detector valve, either with grid leak and condenser or for anode bend rectification.
3. In high frequency amplifiers, where a circuit with some form of stabilising or damping is employed.

The maximum filament voltage is 4.0 and this figure should not be exceeded.

*Approximate Overall Dimensions,  
103 x 46 mm.*

### TYPE DEH 410

Fil. Volts .....4.0 max.  
Fil. Current .....0.1 amps.  
Anode Volts ..... 150 max.  
\*Amp. Factor ..... 40  
\*Impedance 60,000 ohms.  
\*Normal Slope .66 Ma/v.  
\*At Anode Volts 100

*Grid Volts 0*

**Price, 10/6**

### TYPE DEL 410

Fil. Volts ..... 4.0 max.  
Fil. Current .....0.1 amps.  
Anode Volts ...150 max.  
\*Amp. Factor .....15  
\*Impedance ...8,500 ohms.  
\*Normal Slope 1.76 Ma/v.  
\*At Anode Volts 100

*Grid Volts 0*

**Price, 10/6**

### TYPE DEL 410

DULL EMITTER, GENERAL PURPOSE VALVE.

A highly efficient dull emitter valve, having characteristics which make it very suitable for the following purposes :

1. In high frequency amplifiers where a circuit with some method of stabilising or damping is employed.
2. As a detector valve using grid leak and condenser.
3. In transformer or choke-coupled low frequency amplifiers, in all stages except the last, where a DEP 410 or P 425 power valve should be used.

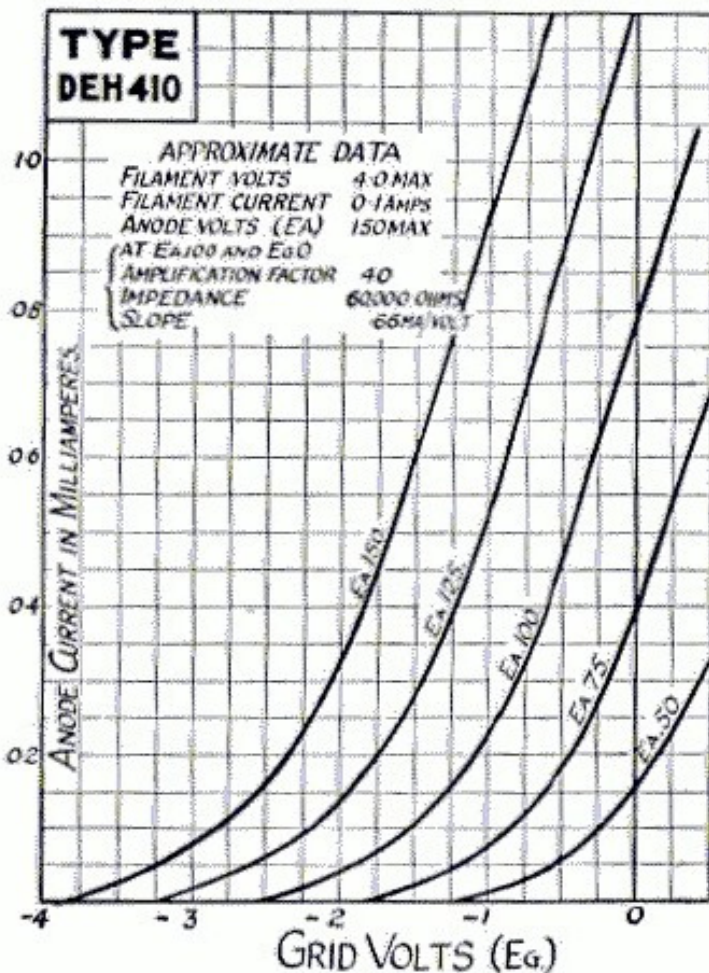
The maximum filament voltage is 4.0 and this figure should not be exceeded.



### TYPE DEH 410

*Approximate Operating Data—Neglecting Resistance of Output Circuit.*

Anode Volts	Grid Bias Volts
120-150	<b>In Resistance Coupled Amplifier:</b> -1½
50-150	<b>As Grid Leak Detector:</b> Connect grid leak to positive end of filament
75-150	<b>As Anode Bend Detector:</b> -1½ to -3
75-150	<b>In High Frequency Amplifier:</b> Positive, zero or negative according to method of stabilising or damping circuit.

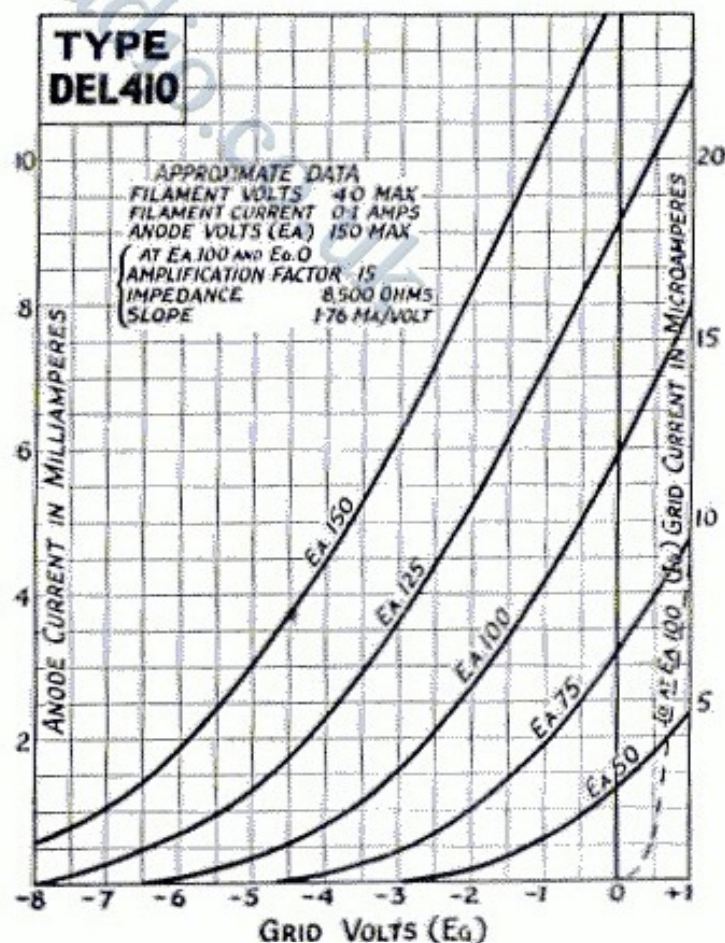


*Characteristic Curve of Average DEH 410 Valve.*

### TYPE DEL 410

*Approximate Operating Data—Neglecting Resistance of Output Circuit.*

Anode Volts	Grid Bias Volts
50-150	<b>In High Frequency Amplifier:</b> Positive, zero or negative according to method of stabilising or damping circuit.
50-150	<b>As Grid Leak Detector:</b> Connect grid leak to positive end of filament.
75-150	<b>In Low Frequency Amplifier:</b> -1½ to -4½



*Characteristic Curve of Average DEL 410 Valve.*

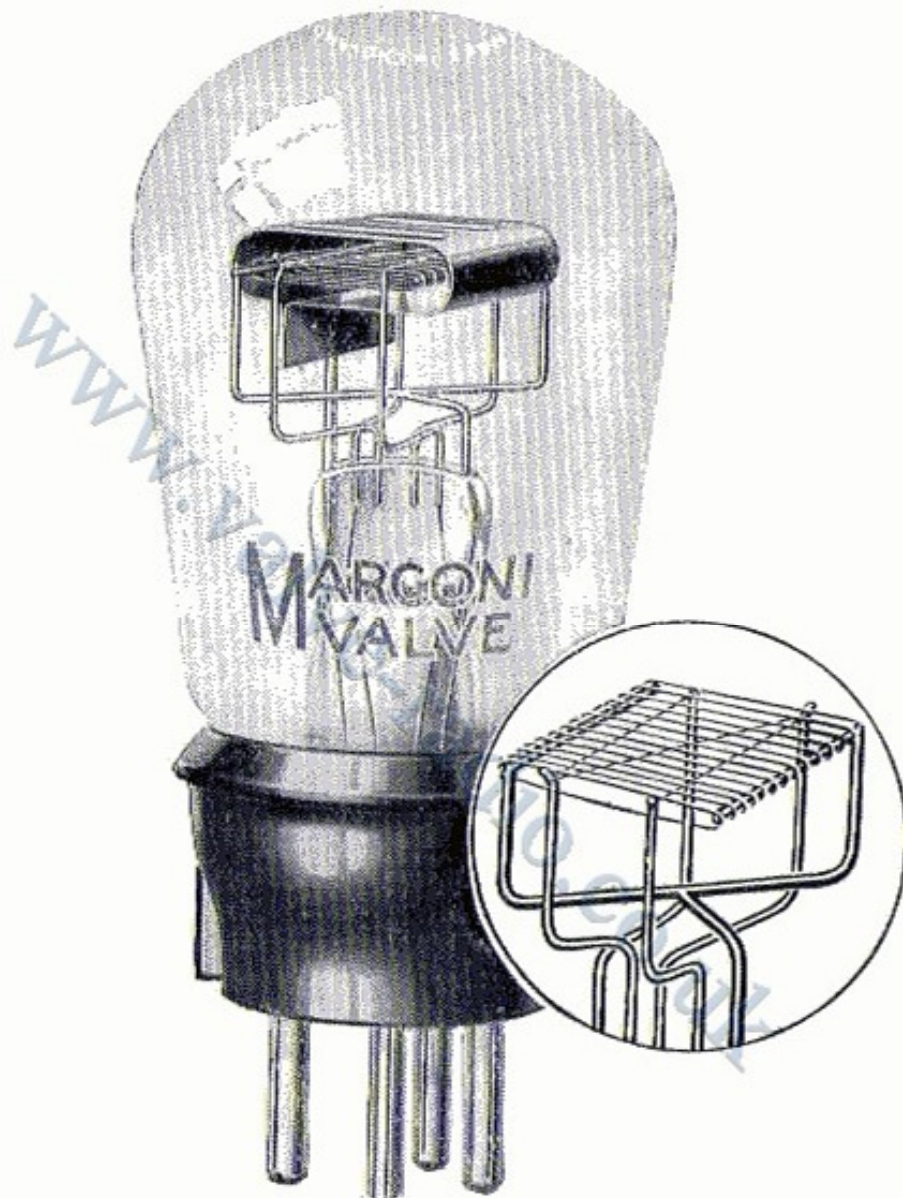


# MARCONI VALVES

for use with 4-volt Accumulator

## TYPE DEP 410

DULL EMITTER, LOW FREQUENCY POWER AMPLIFYING VALVE.



*Approximate Overall Dimensions,  
103 × 46 mm.*

Fil. Volts .....4.0 max.  
Fil. Current .....0.1 amps.  
Anode Volts .....150 max.  
\*Amp. Factor .....7.5  
\*Impedance 5,000 ohms.  
\*Normal Slope 1.5 Ma/v.  
\*At Anode Volts 100  
Grid Volts 0

**Price, 12/6.**

The DEP 410 is a low frequency power amplifying valve designed for use in the last stages of sets operating from a 4 volt accumulator.

For these purposes it has exceptionally good characteristics, and if used under the conditions given on next page will give great amplification without distortion.

The maximum filament voltage is 4.0 and this figure should not be exceeded.



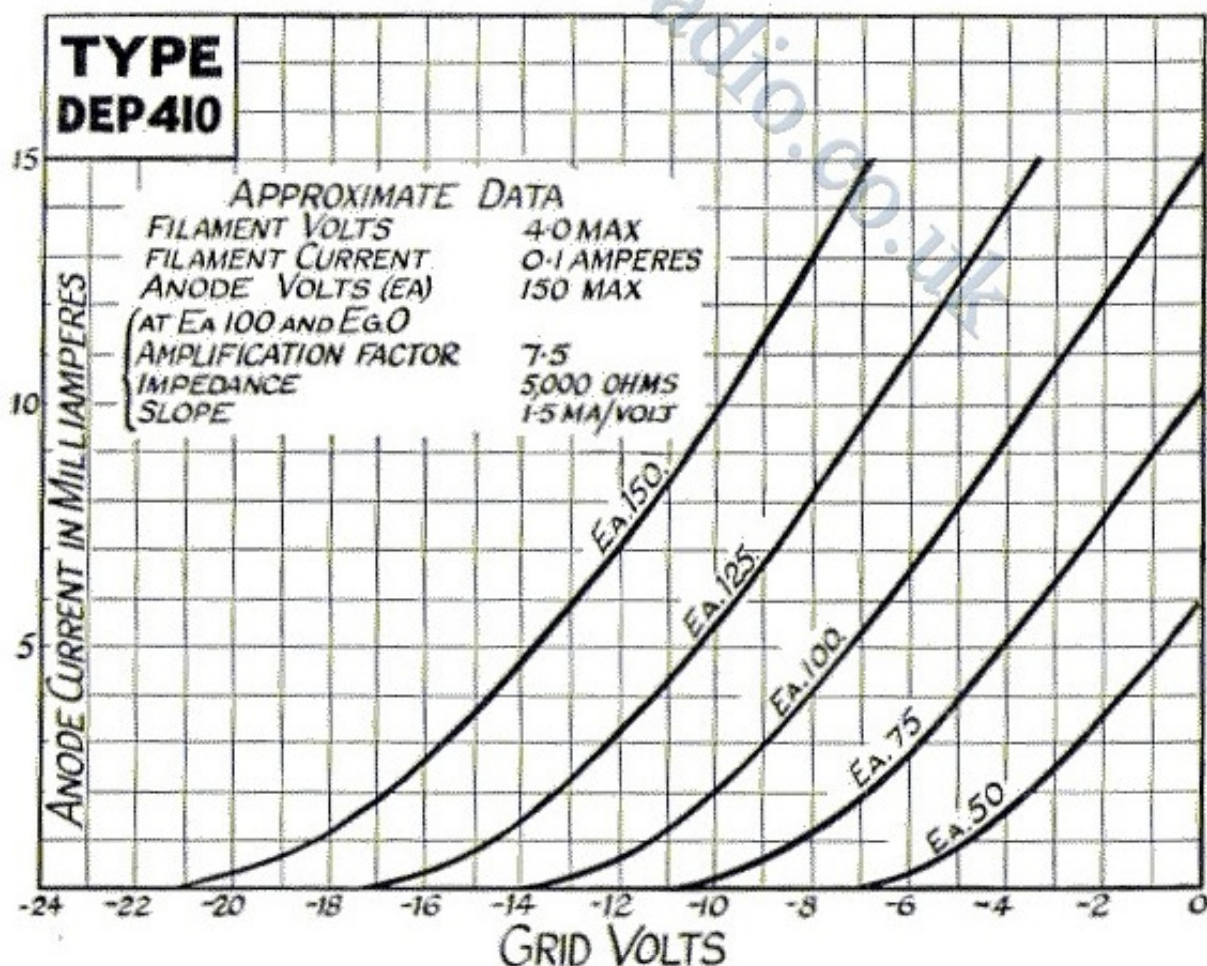
# MARCONI VALVES

## TYPE DEP 410

*Approximate Operating Data—Neglecting Resistance of Output Circuit.*

Anode Volts	Negative Grid Bias Volts	Anode Current in milliamperes (approx.)
75	4½	4.5
100	6	6.5
125	9	6.8
150	10½	9.0

When used in the last stage of a 2 or 3 valve amplifier, it is desirable to employ a high tension battery voltage of 120 to 150 to ensure complete absence of distortion. If used in a low frequency amplifier in stages preceding the last position, about 75 to 100 volts H.T. is suitable. In all cases the requisite grid bias as shown in the preceding table should be employed.



*Characteristic Curve of Average DEP 410 Valve.*

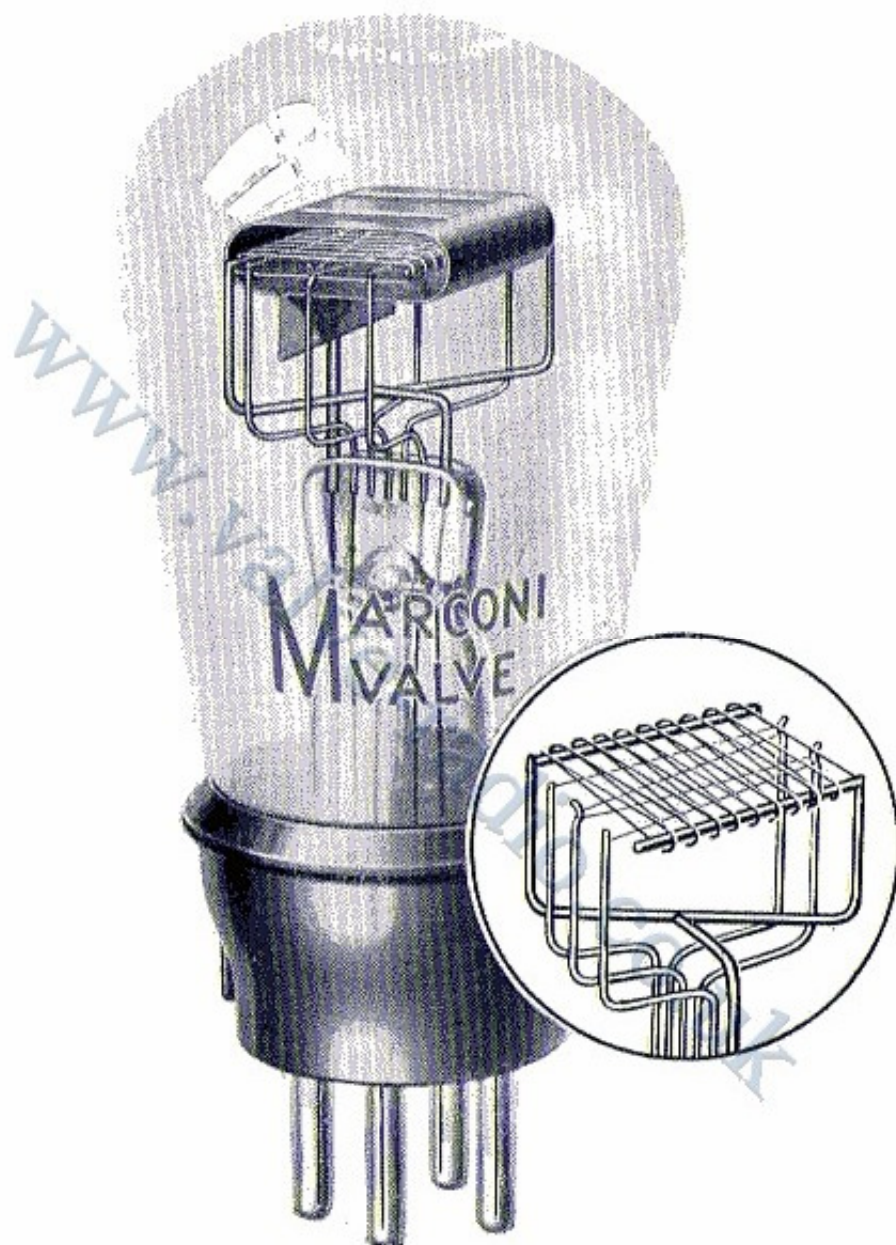


# MARCONI VALVES

for use with 4-volt Accumulator

## TYPE P 425

DULL EMITTER, LOW FREQUENCY POWER AMPLIFYING VALVE.



*Approximate Overall Dimensions,*

$103 \times 46 \text{ mm.}$

Fil. Volts .....4.0 max.  
Fil. Current ...0.25 amps.  
Anode Volts .....150 max.  
\*Amp. Factor .....4.5  
\*Impedance 2,300 ohms.  
\*Normal Slope 1.95 Ma/v.  
\*At Anode Volts 100  
Grid Volts 0

**Price, 15/-**

The P 425 is a dull emitter low frequency amplifying valve of the super power class, designed for use in the last stage only of sets operating from a 4 volt accumulator.

When used with correct values of anode voltage and negative grid bias, it will give ample undistorted output for operating loud speakers of the larger type.



# MARCONI VALVES

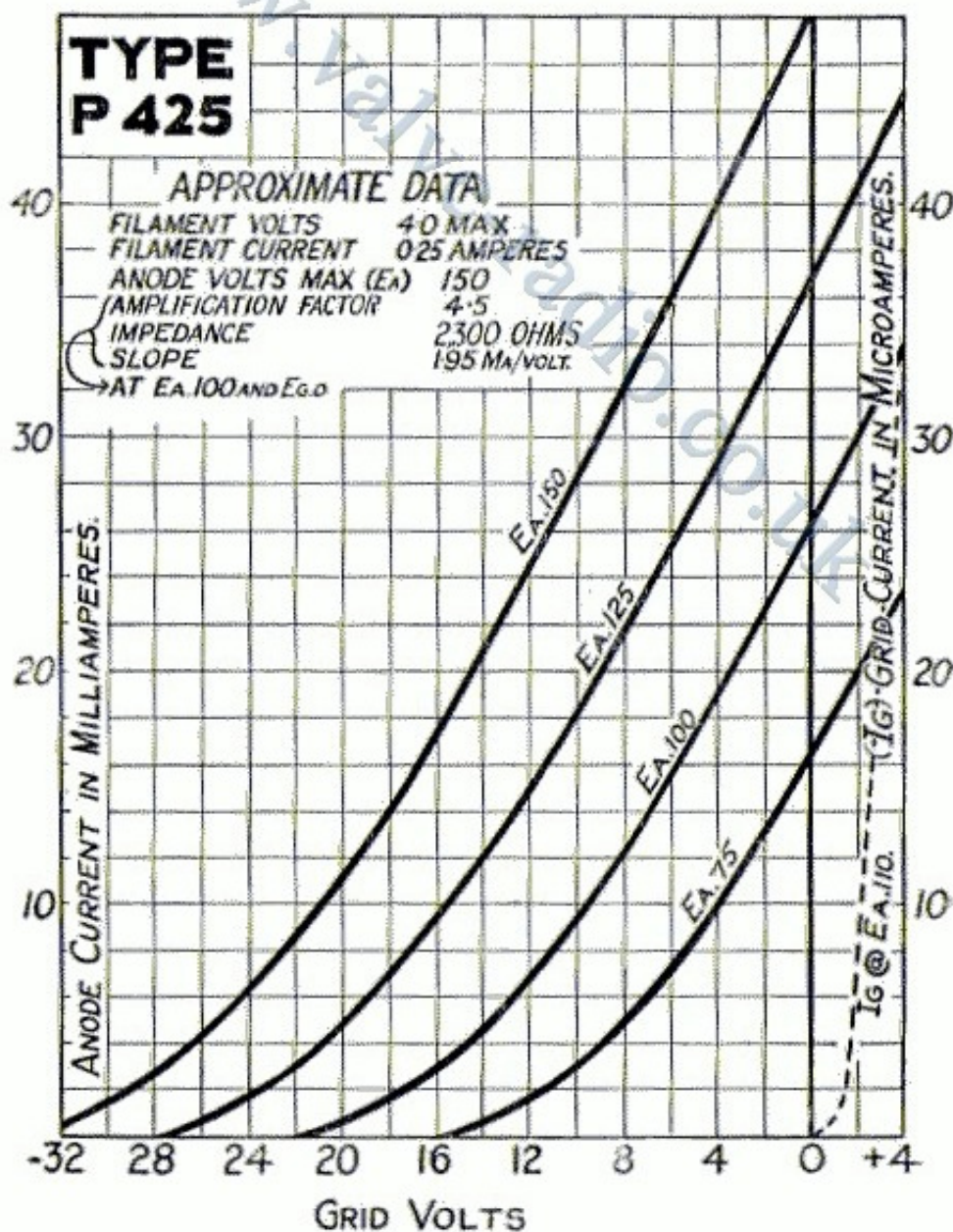
## TYPE P 425

To avoid distortion and to obtain the best results, with the greatest economy of high tension current, a negative grid bias is necessary, approximate values of which are given below for several anode voltages.

*Approximate Operating Data—Neglecting Resistance of Output Circuit.*

Anode Volts	Negative Grid Bias Volts	Average Anode Current in milliamperes
150	16.5	17
125	12.0	15
100	9	11
75	6	7

While the grid bias is being adjusted the high tension supply should be disconnected.



*Characteristic Curve of Average P 425 Valve.*



# MARCONI VALVES

for use with 6-volt Accumulator.

## TYPE S 610

SCREEN GRID, HIGH FREQUENCY AMPLIFYING VALVE.



The S 610 is a specially designed high frequency amplifying valve, having four electrodes, in which the inter-electrode capacity effect, so detrimental to high frequency amplification has been nullified by the introduction of a screening grid. The anode is connected to a terminal on the top of the valve and the screen grid to the ordinary anode pin of the valve cap.

When used in a suitable circuit, a greater magnification per stage can be obtained than when using ordinary three electrode valves in a stabilised circuit.

A typical adjustment of electrode potentials is given below.

Anode Volts	Negative Grid Bias Volts	Screen Grid Volts
120	0 to $1\frac{1}{2}$	80

Filament Volts ...	...	...	6.0 max.
Filament Current ...	...	...	0.1 amp.
Anode Volts (Ea.) ...	...	...	150 max.
Screen Grid Volts (Esg.)	...	...	60 to 90 max.
*Amplification Factor ...	...	...	210
*Impedance ...	...	...	200,000 ohms.
*Slope ...	...	...	1.05 Ma/v.
* At Anode Volts 120, Screen Grid Volts +80, Grid Volts 0 to -1			

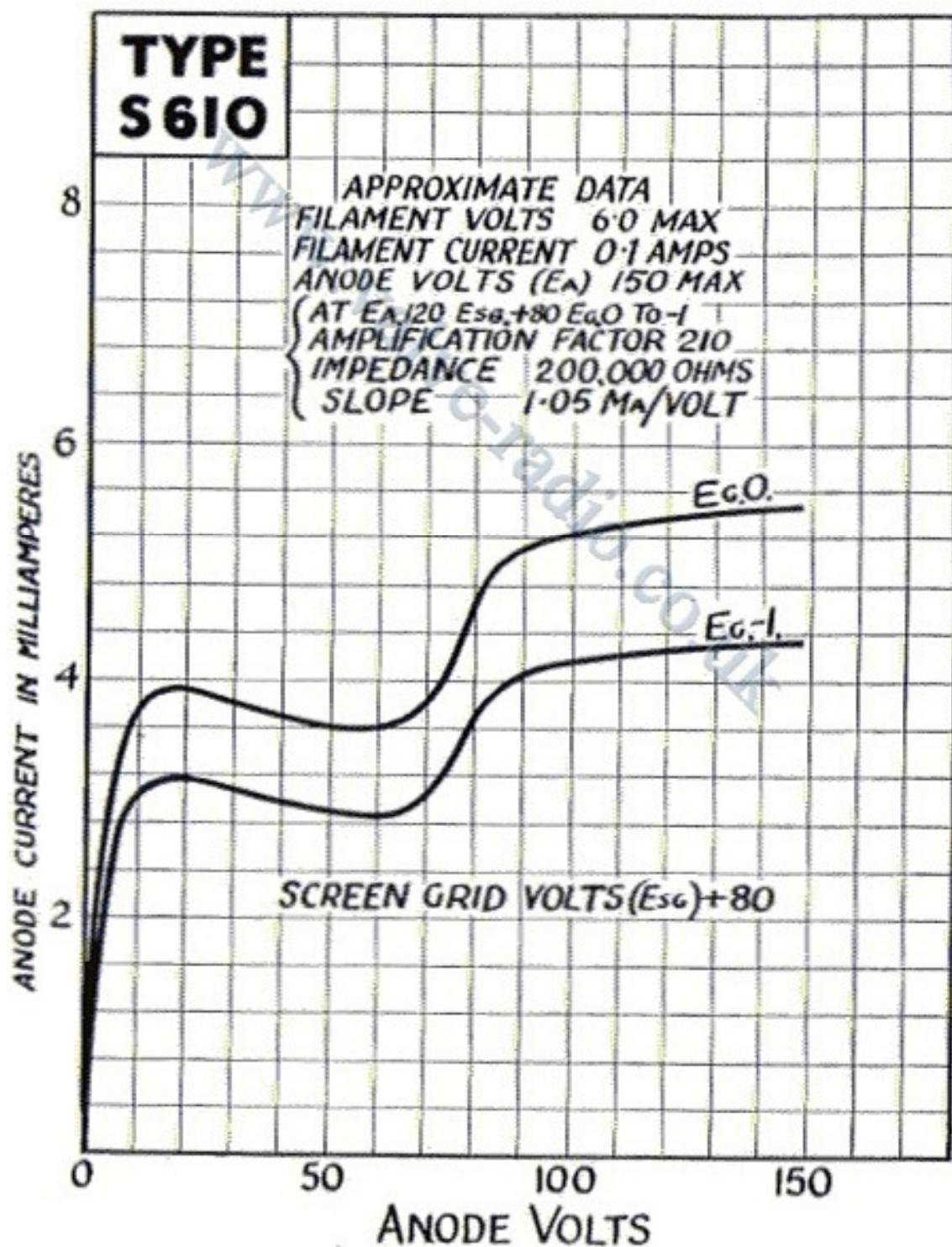
Approximate Overall Dimensions,  
136 × 44 m/m.

Price, 22/6



# MARCONI VALVES

## TYPE S 610



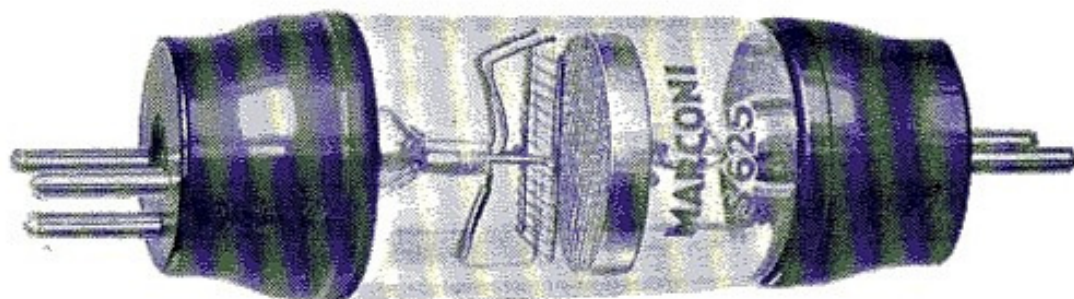
*Characteristic Curve of Average S 610 Valve.*



# MARCONI VALVES

for use with 6-volt Accumulator

## TYPE S 625 SHIELDED VALVE



*Approximate Overall Dimensions,  
125 x 32 m/m.*

### HIGH FREQUENCY AMPLIFYING VALVE

It is well known that one of the greatest difficulties confronting the designer of a high frequency amplifier is the problem of overcoming reaction effects due to the capacity between grid and anode of the valve employed.

Marconi Valve S. 625 attacks the problem in a fundamental manner, by overcoming the inter-electrode capacity effect within the valve itself, and thus making neutralization unnecessary.

A fine mesh grid is interposed between the grid, which is of the standard Marconi type, and the anode—a flat circular plate with dished edges. The grid and filament are supported from one end of the glass tube and are there connected to a cap; the anode and screening grid are mounted in a similar manner at the other end of the tube, thus the capacity between the leading-in wires to the

anode and grid and filament is reduced to zero.

In this way Marconi Type S 625 brings within reach an amplification of 30-50 per stage with absolute stability and maximum efficiency over a very wide range of wave-lengths, and is an important step towards reliable long distance reception.

Fil. volts	...	...	...	6.0
Fil. current	...	...	...	0.25
Anode volts	...	...	100-180 max.	

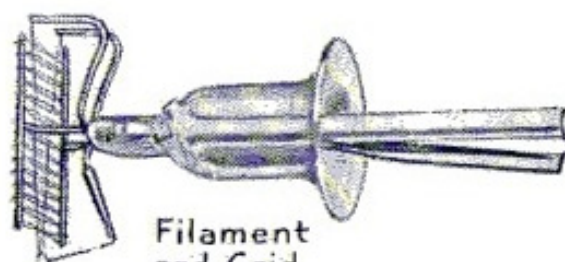
The magnification factor and impedance vary between wide limits with variation of volts on the electrodes.

Screen Grid Volts	...	50-120 max.
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Price, 22/6



Anode  
and Screen



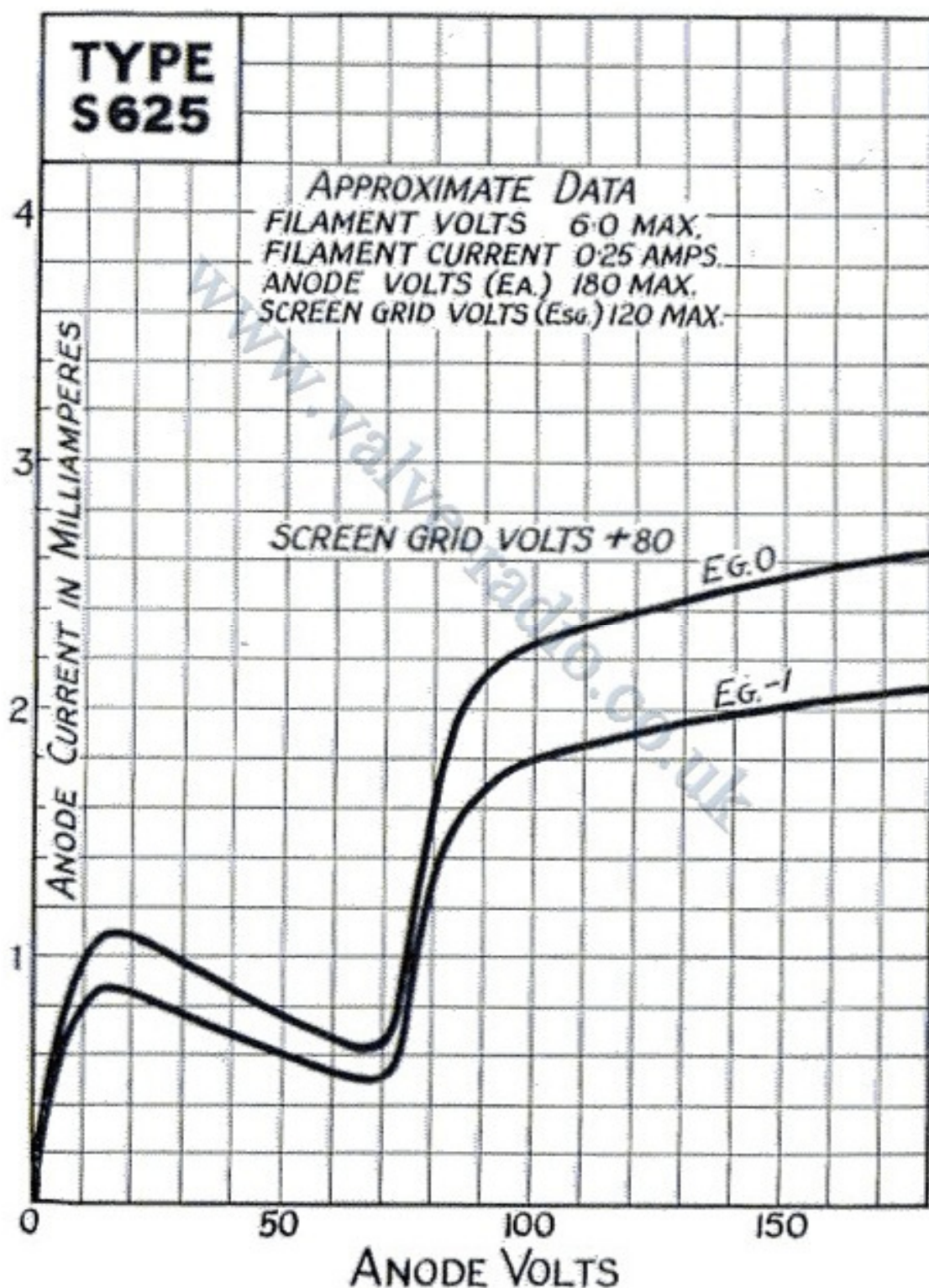
Filament  
and Grid

Electrodes of the Marconi Shielded Valve



# MARCONI VALVES

## TYPE S 625



*Characteristic Curve of Average S 625 Valve.*



# MARCONI VALVES

for use with 6-volt Accumulator

## TYPES DEH 610 & DEL 610

### TYPE DEH 610

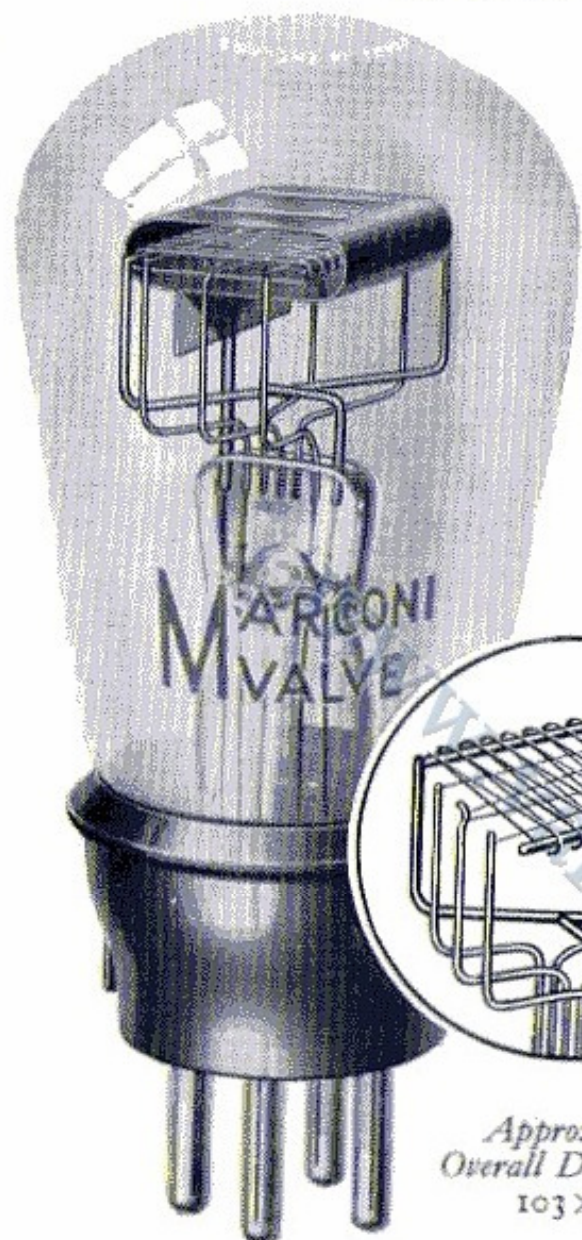
DULL EMITTER, RESISTANCE CAPACITY  
AMPLIFYING AND DETECTOR VALVE.

A highly efficient dull emitter valve, having a very high "Amplification Factor," making it suitable for the following purposes :

1. In resistance-capacity coupled amplifiers, except in the last stages, where types DEL 610, DEP 610, P 625 or P 625A should be used
2. As a detector valve, either with grid leak and condenser or for anode bend rectification, when followed by resistance-capacity coupling.
3. In high frequency amplifiers, where a circuit with some form of stabilising or damping is employed.

The maximum filament voltage is 6.0 and this figure should not be exceeded.

*Approximate  
Overall Dimensions,  
103 x 46 mm.*



### TYPE DEH 610

Fil. Volts, .....6.0 max.  
Fil. Current .....0.1 amps.  
Anode Volts .....150 max.  
\*Amp. Factor .....40  
\*Impedance...60,000 ohms.  
\*Normal Slope... .67 Ma/v.  
\*At Anode Volts 100  
Grid Volts 0

Price, 10/6

### TYPE DEL 610

Fil. Volts .....6.0 max.  
Fil. current .....0.1 amp.  
Anode Volts ...150 max.  
\*Amp. Factor .....15  
\*Impedance ... 7,500 ohms.  
\*Normal Slope...2.0 Ma/v.  
\*At Anode Volts 100  
Grid Volts 0

Price, 10/6

### TYPE DEL 610

DULL EMITTER, GENERAL PURPOSE VALVE.

A highly efficient dull emitter valve, having characteristics which make it very suitable for the following purposes :

1. In High Frequency amplifiers where a circuit with some method of stabilising or damping is employed.
2. As a Detector valve.
3. In transformer or choke-coupled Low Frequency amplifiers, in all stages except the last, where DEP 610 Power Valve, P 625 or P 625A Super Power Valves should be used.

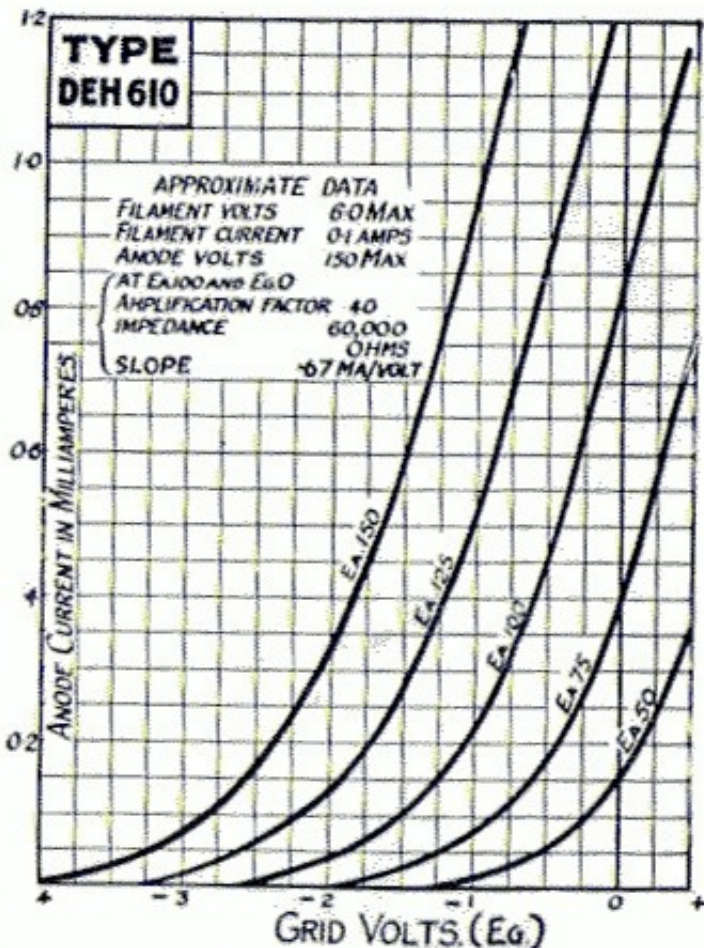
The maximum filament voltage is 6.0 and this figure should not be exceeded.



## TYPE DEH 610

*Approximate Operating Data—Neglecting Resistance of Output Circuit.*

Anode Volts	Grid Bias Volts
120-150	<b>In Resistance-Coupled Amplifier:</b> $-1\frac{1}{2}$
50-150	<b>As Grid Leak Detector:</b> Connect grid leak to positive end of filament.
75-150	<b>As Anode Bend Detector:</b> $-1\frac{1}{2}$ to $-3$
75-150	<b>In High Frequency Amplifier:</b> Positive, zero or negative according to method of stabilising or damping circuit,

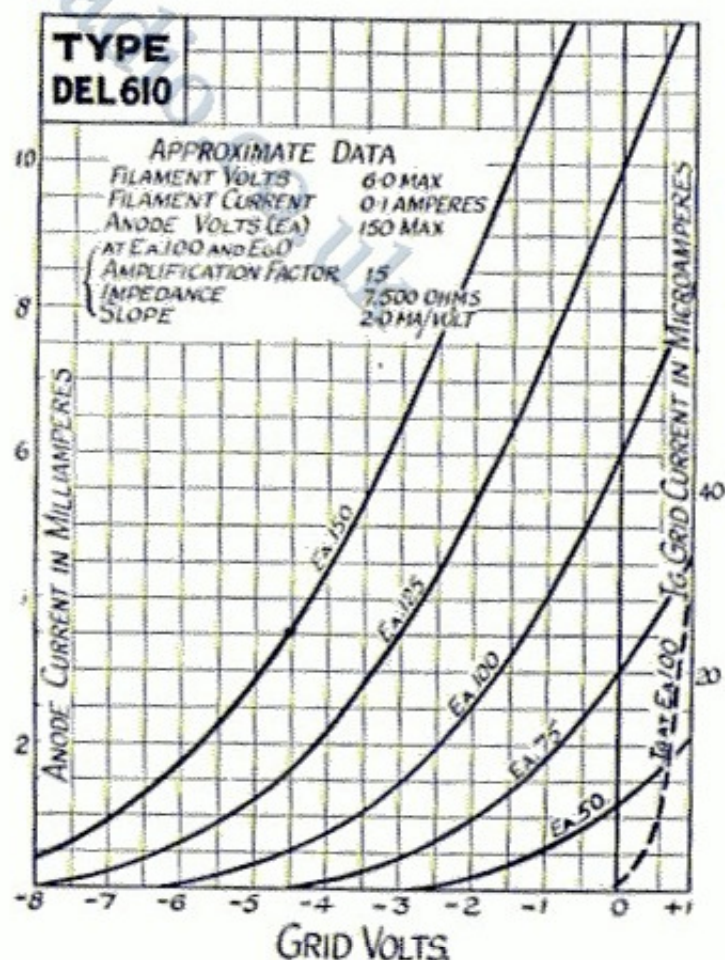


*Characteristic Curve of Average DEH 610 Valve.*

## TYPE DEL 610

*Approximate Operating Data—Neglecting Resistance of Output Circuit.*

Anode Volts	Grid Bias Volts
50-150	<b>In High Frequency Amplifier:</b> Positive, zero or negative according to method of stabilising or damping circuit.
50-150	<b>As Grid Leak Detector:</b> Connect grid leak to positive end of filament.
75-150	<b>In Low Frequency Amplifier:</b> $-1\frac{1}{2}$ to $-4\frac{1}{2}$ .



*Characteristic Curve of Average DEL 610 Valve.*

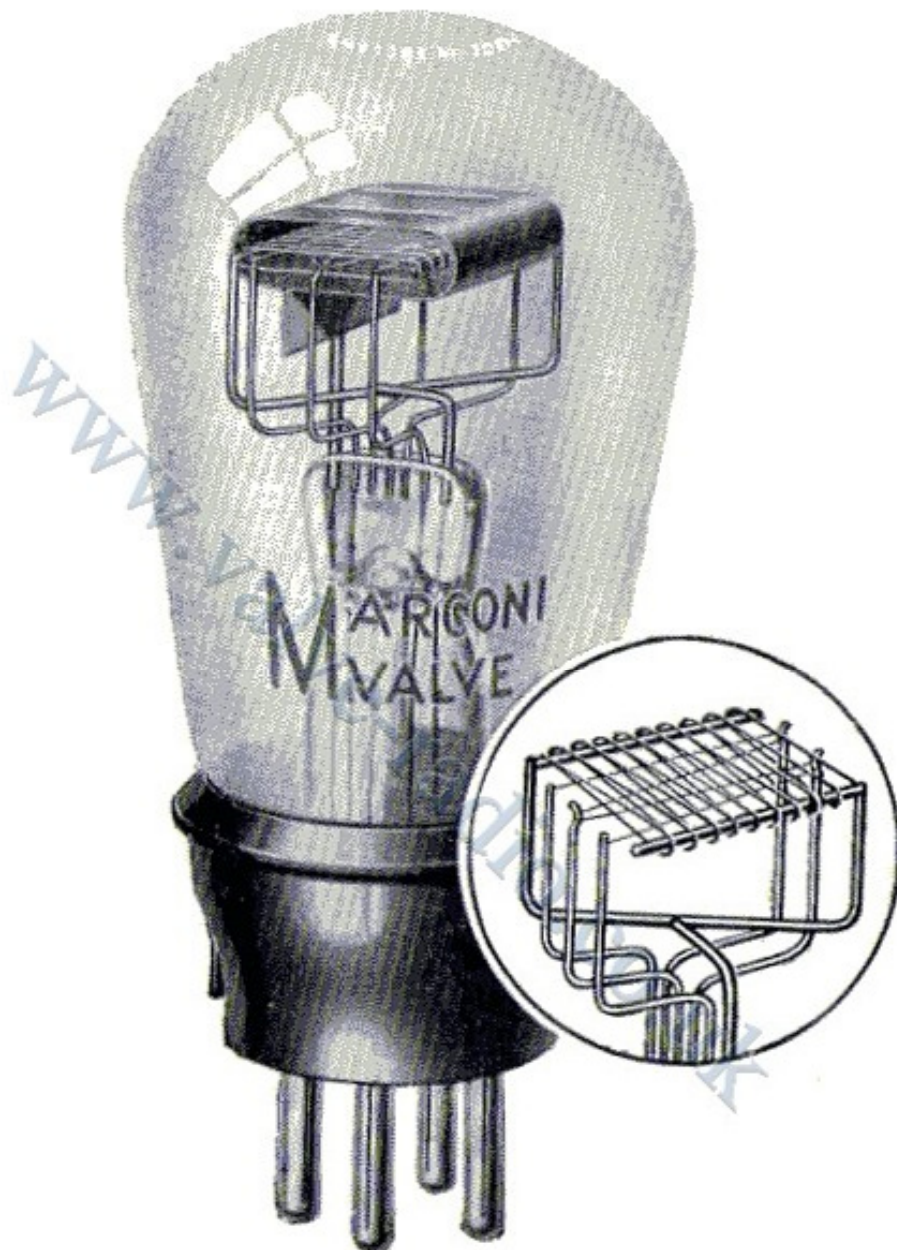


# MARCONI VALVES

for use with 6-volt Accumulator

## TYPE HL 610

DULL EMITTER, HIGH FREQUENCY DETECTOR AND LOW FREQUENCY AMPLIFYING VALVE.



*Approximate Overall Dimensions,  
103 × 46 mm.*

Fil. Volts .....6.0 max.  
Fil. Current .....0.1 amp.  
Anode Volts (Ea) 150 max.  
\*Amp. Factor .....30  
\*Impedance 30,000 ohms.  
\*Normal Slope 1.0 Ma/v.  
\*At Anode Volts 100  
Grid Volts 0

**Price, 10/6.**

The HL 610 is a very efficient dull emitter valve, having characteristics which make it suitable for the following purposes :

1. In High Frequency Amplifiers, where a circuit with some method of damping or stabilising is employed.
2. As a Detector Valve.
3. In the first stage only of L.F. Amplifiers.

The maximum filament voltage is 6.0 and this figure should not be exceeded.

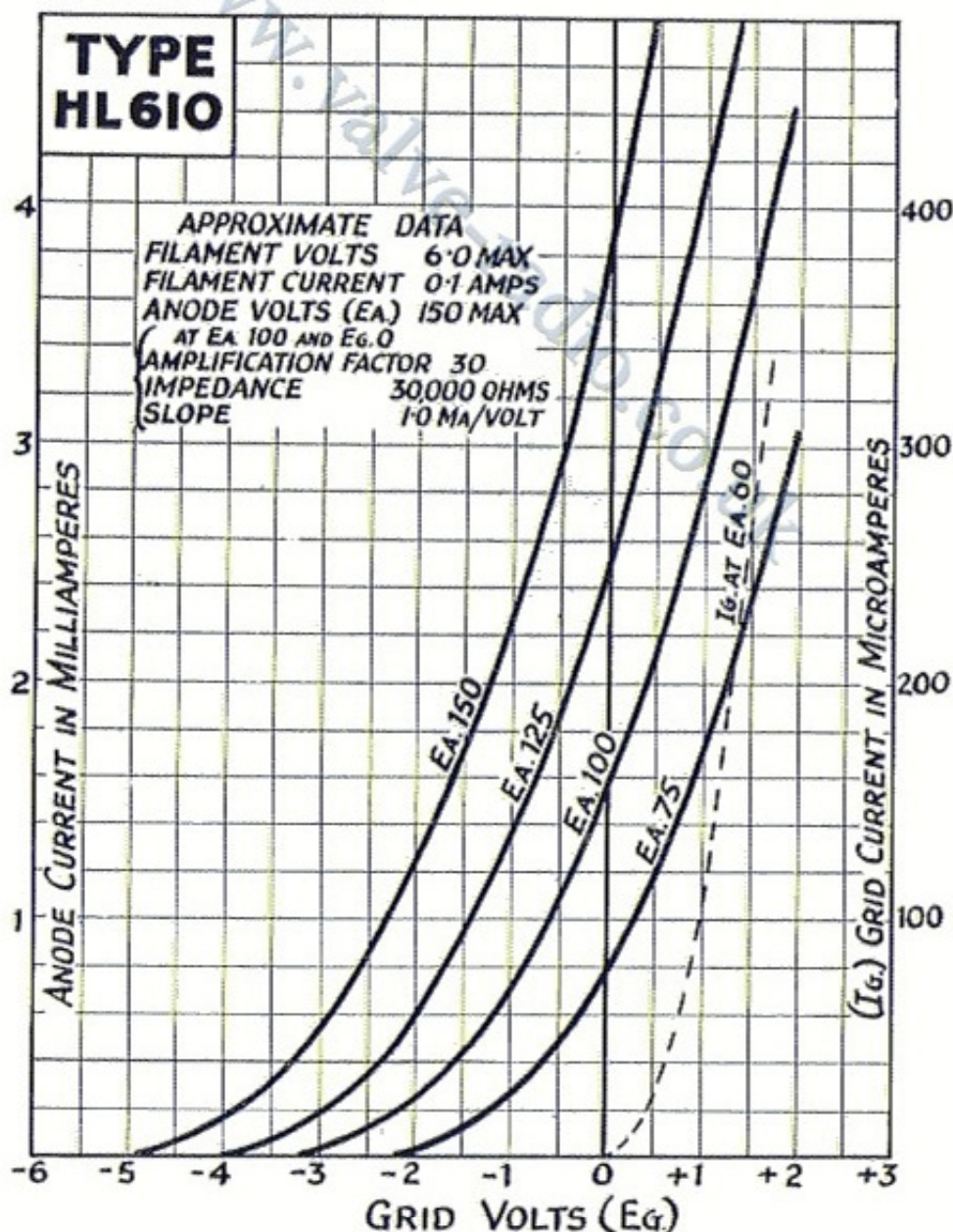


# MARCONI VALVES

## TYPE HL 610

*Approximate Operating Data—Neglecting Resistance of Output Circuit.*

	Anode Volts	Grid Bias Volts
<b>In High Frequency Amplifier:</b>	75 to 150	Positive, zero or negative according to method of stabilising or damping circuit.
<b>As Grid Leak Detector:</b>	75 to 150	Connect grid leak to positive end of filament.
<b>As Anode Bend Detector:</b>	75 to 150	$-1\frac{1}{2}$ to $-3$
<b>In Low Frequency Amplifier:</b>	120 to 150	$-1\frac{1}{2}$



*Characteristic Curve of Average HL 610 Valve.*

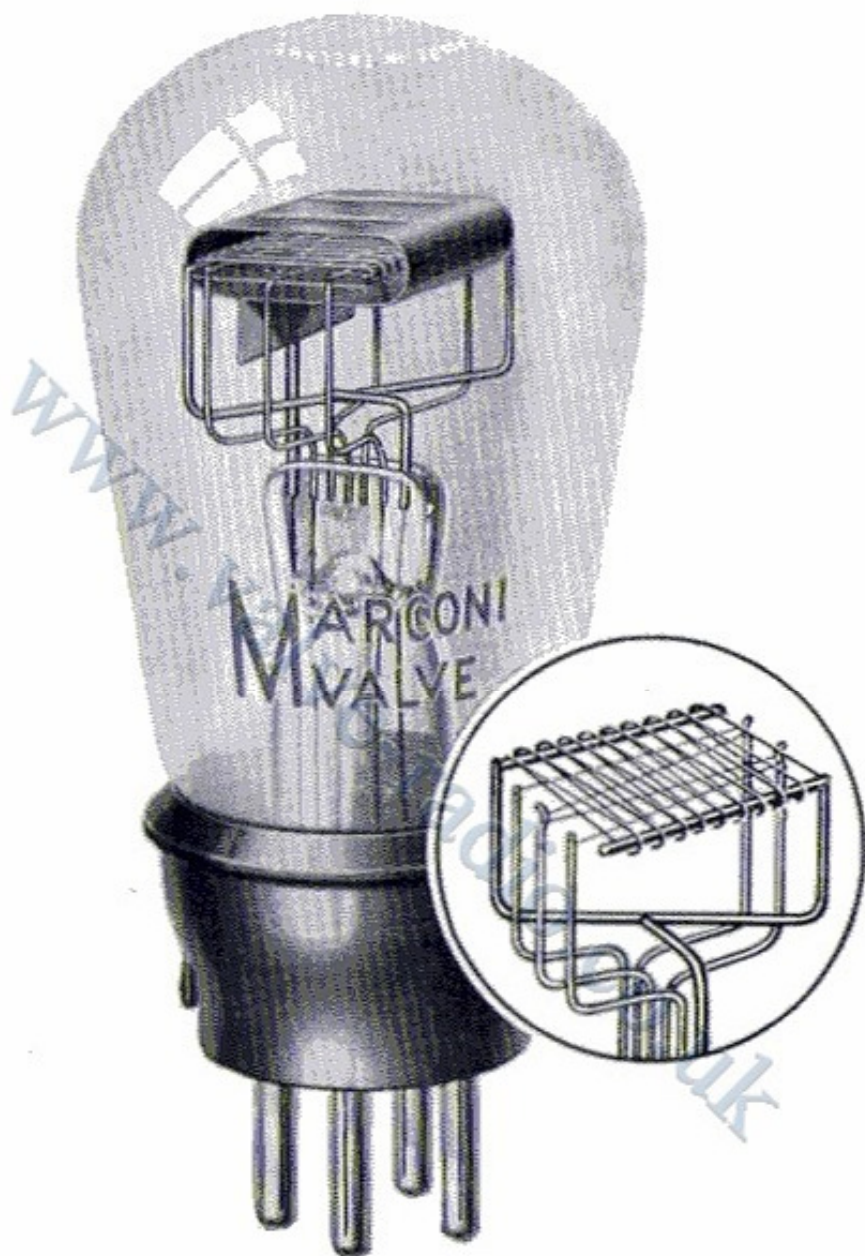


# MARCONI VALVES

for use with 6-volt Accumulator

## TYPE DEP 610

DULL EMITTER, LOW FREQUENCY, POWER AMPLIFYING VALVE.



*Approximate Overall Dimensions,  
103 × 46 m/m.*

Fil. Volts .....6.0 max.  
Fil. Current .....0.1 amp.  
Anode Volts .....150 max.

\*Amp. Factor .....8

\*Impedance 3,500 ohms.

\*Normal Slope 2.28 Ma/v.

\*At Anode Volts 100  
Grid Volts 0

Price, 12/6.

The DEP 610 is a low frequency power amplifying valve designed for use in the last stages of sets operating from a 6-volt accumulator.

For these purposes it has exceptionally good characteristics, and if used under the conditions given on next page will give great amplification without distortion.

The maximum filament voltage is 6.0 and this figure should not be exceeded.



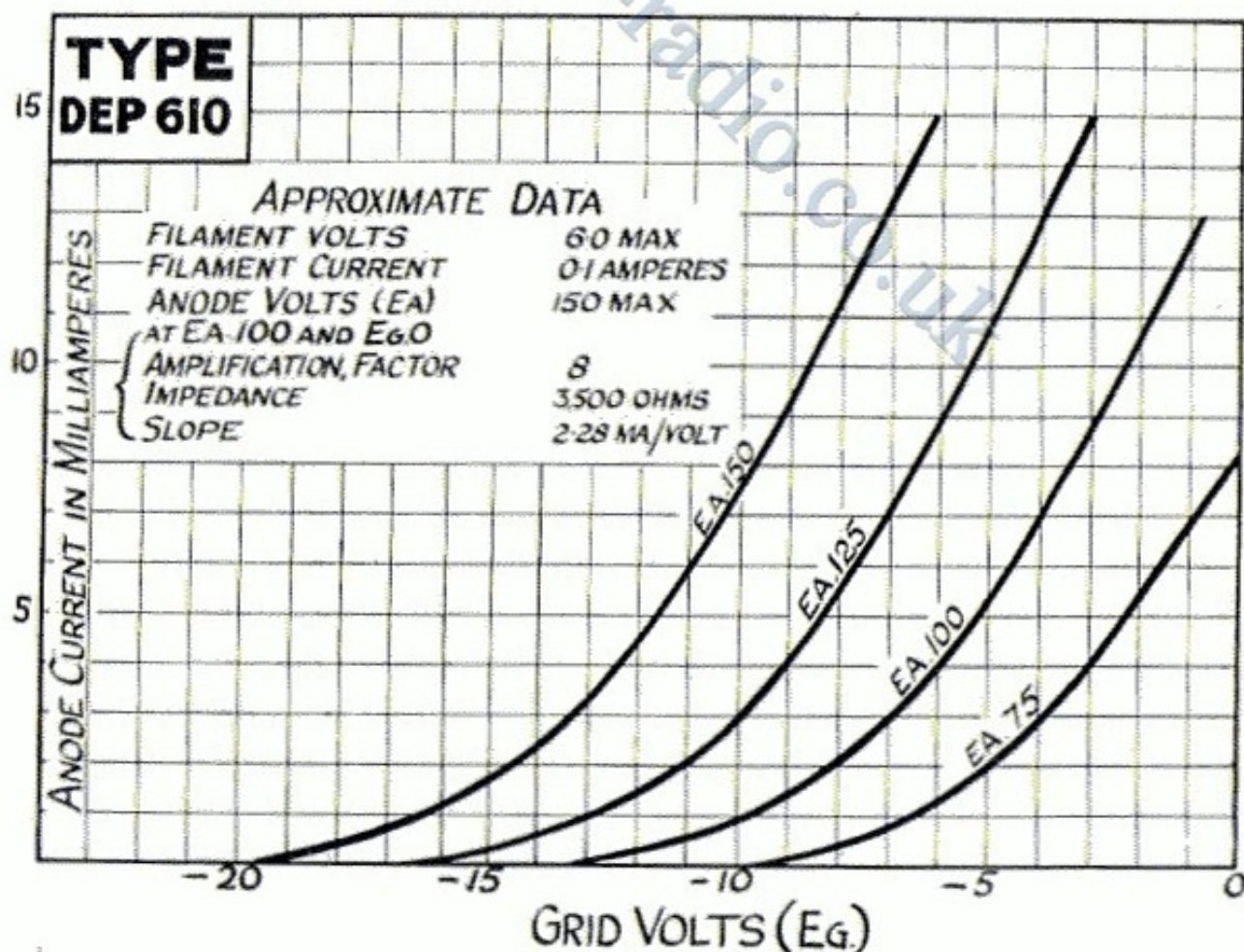
# MARCONI VALVES

## TYPE DEP 610

*Approximate Operating Data—Neglecting Resistance of Output Circuit.*

Anode Volts	Negative Grid Bias Volts	Anode Current in Milliamperes (approximate)
75	$4\frac{1}{2}$	2.5
100	6	4.0
125	$7\frac{1}{2}$	6.5
150	9	9.5

When used in the last stage of a 2 or 3 valve amplifier, it is desirable to employ a high tension battery voltage of 120 to 150, to ensure complete absence of distortion. If used in a low frequency amplifier in stages preceding the last position about 75 to 100 volts H.T. is suitable. In all cases the requisite grid bias as shown in the preceding table should be employed.



*Characteristic Curve of Average DEP 610 Valves.*



# MARCONI VALVES

for use with 6-volt Accumulators

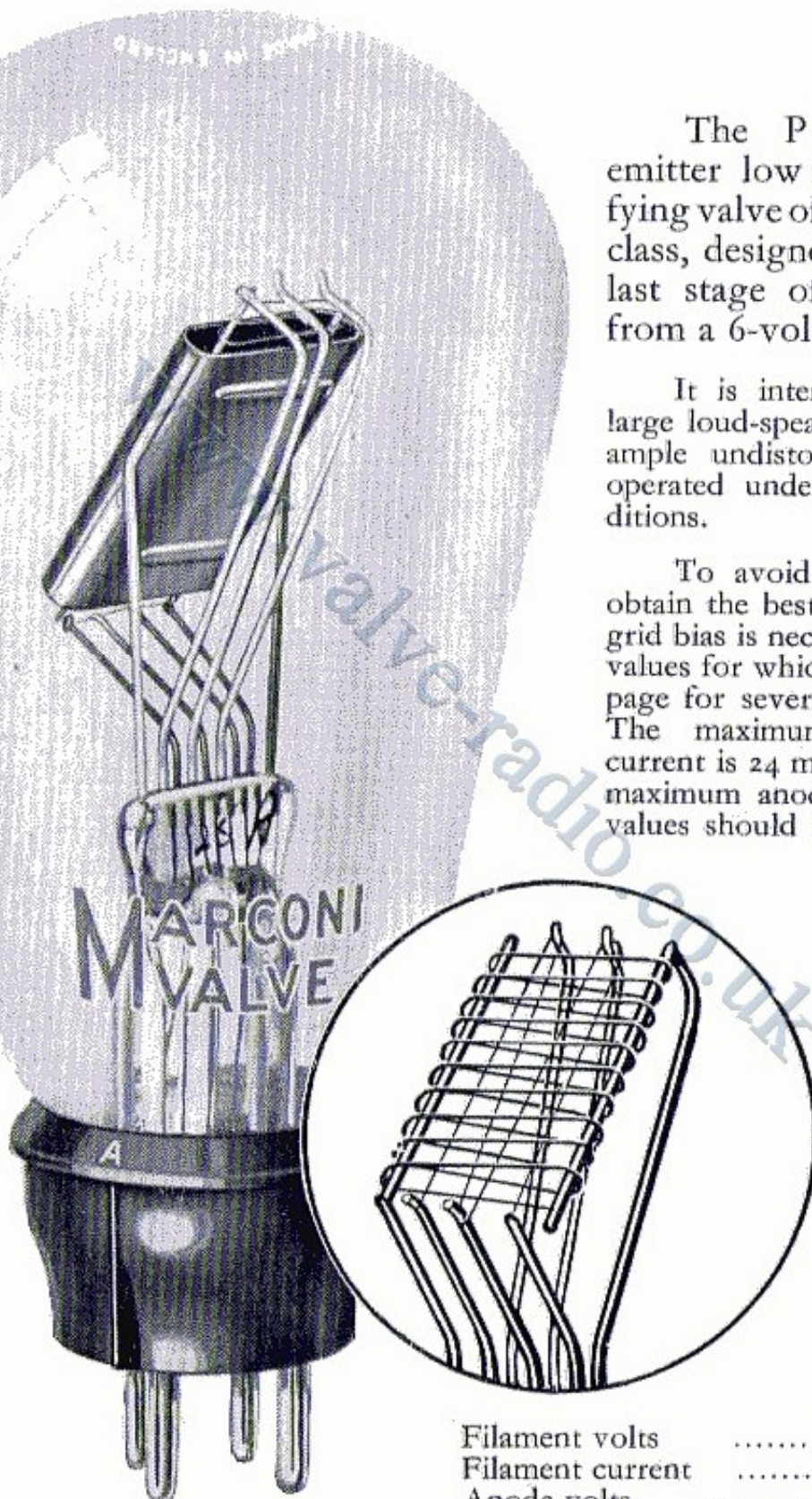
## TYPE P 625

DULL EMITTER, LOW FREQUENCY POWER AMPLIFYING VALVE.

The P 625 is a dull emitter low frequency amplifying valve of the super power class, designed for use in the last stage of sets operating from a 6-volt accumulator.

It is intended for use with large loud-speakers, and will give ample undistorted output when operated under the correct conditions.

To avoid distortion and to obtain the best results, a negative grid bias is necessary, approximate values for which are given on next page for several anode voltages. The maximum average anode current is 24 milliamperes and the maximum anode volts 250, these values should not be exceeded.



Price, 15/-

Approximate Overall Dimensions,

145 × 62 m/m.

Filament volts	.....6.0 max.
Filament current	.....0.25 amps.
Anode volts	.....250 max.
Anode current max	.....24 milliamperes.
*Amplification Factor	..... 6
*Impedance	.....2,400 ohms.
*Normal Slope	..... 2.5 Ma/v.
*At Anode Volts 100, Grid Volts 0	



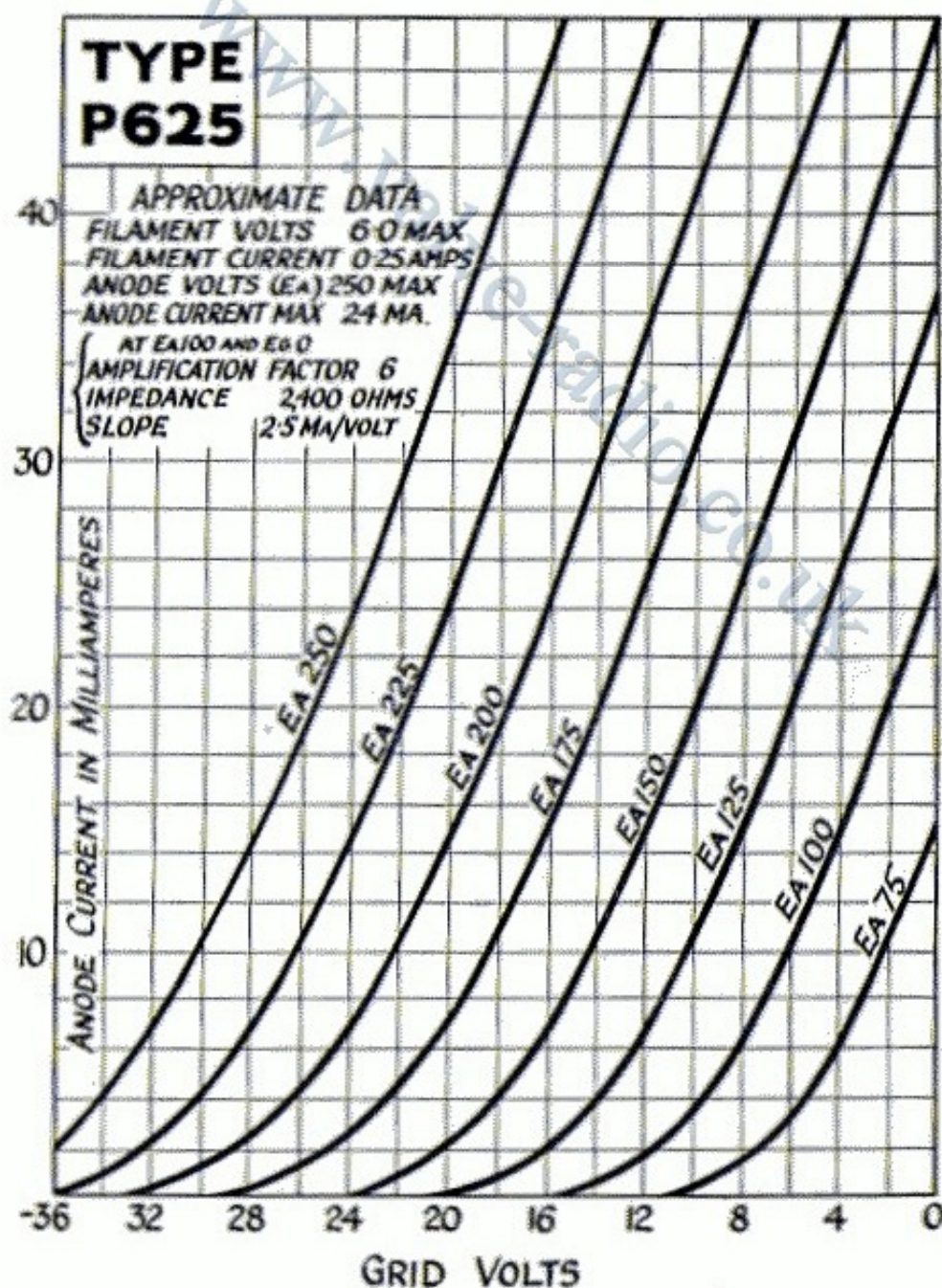
# MARCONI VALVES

## TYPE P 625

*Approximate Operating Data—Neglecting Resistance of Output Circuit.*

Anode Volts	Negative Grid Bias Volts	Average Anode Current in Milliamperes
250	24	24
200	18	19
150	12	14.5
100	6	10

While the grid bias is being adjusted the high tension supply should be disconnected.



*Characteristic Curve of Average P 625 Valve.*

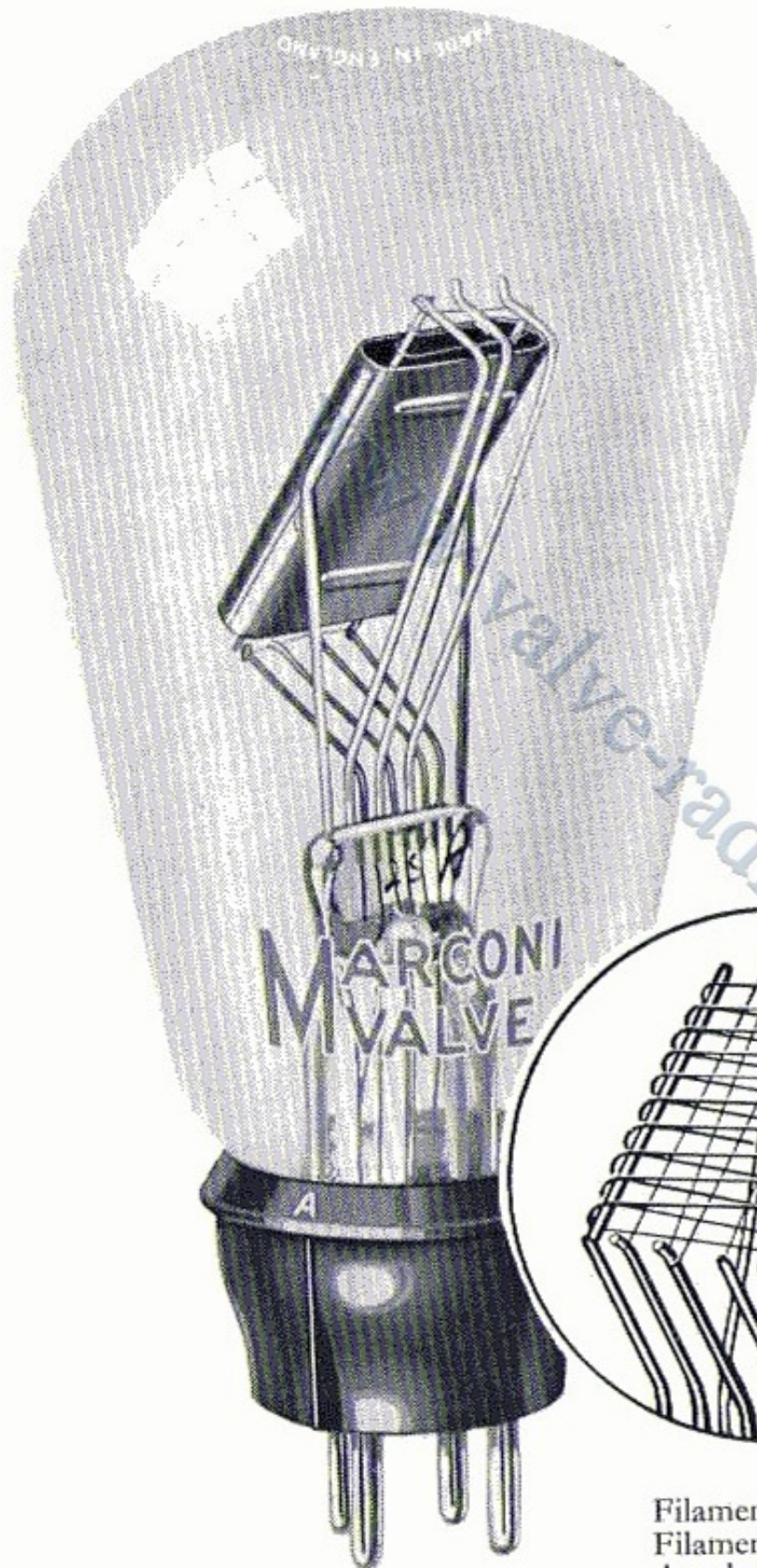


# MARCONI VALVES

for use with 6-volt Accumulator

## TYPE P 625A

DULL EMITTER, LOW FREQUENCY POWER AMPLIFYING VALVE.



The P 625A is a dull emitter low frequency amplifying valve of the super power class, designed for use in the last stage of sets operating from a 6-volt accumulator.

Owing to its very low impedance this valve will give an ample output for operating loud speakers without distortion.

The P 625A is intended for use where the maximum anode voltage available does not exceed 180. At higher voltages than this, up to 250 maximum, type P 625 should be employed.

Price, 15/-

Approximate Overall Dimensions,

145 × 62 m/m.

Filament Volts ..... 6.0 max.  
Filament Current.....0.25 amps  
Anode Volts..... 180 max.  
Anode Current max. ....28 milliamperes  
\*Amplification Factor ..... 3.7  
\*Impedance .....1,600 ohms.  
\*Normal Slope .....2.3 Ma/v.  
\*At Anode Volts 100, Grid Volts 0



# MARCONI VALVES

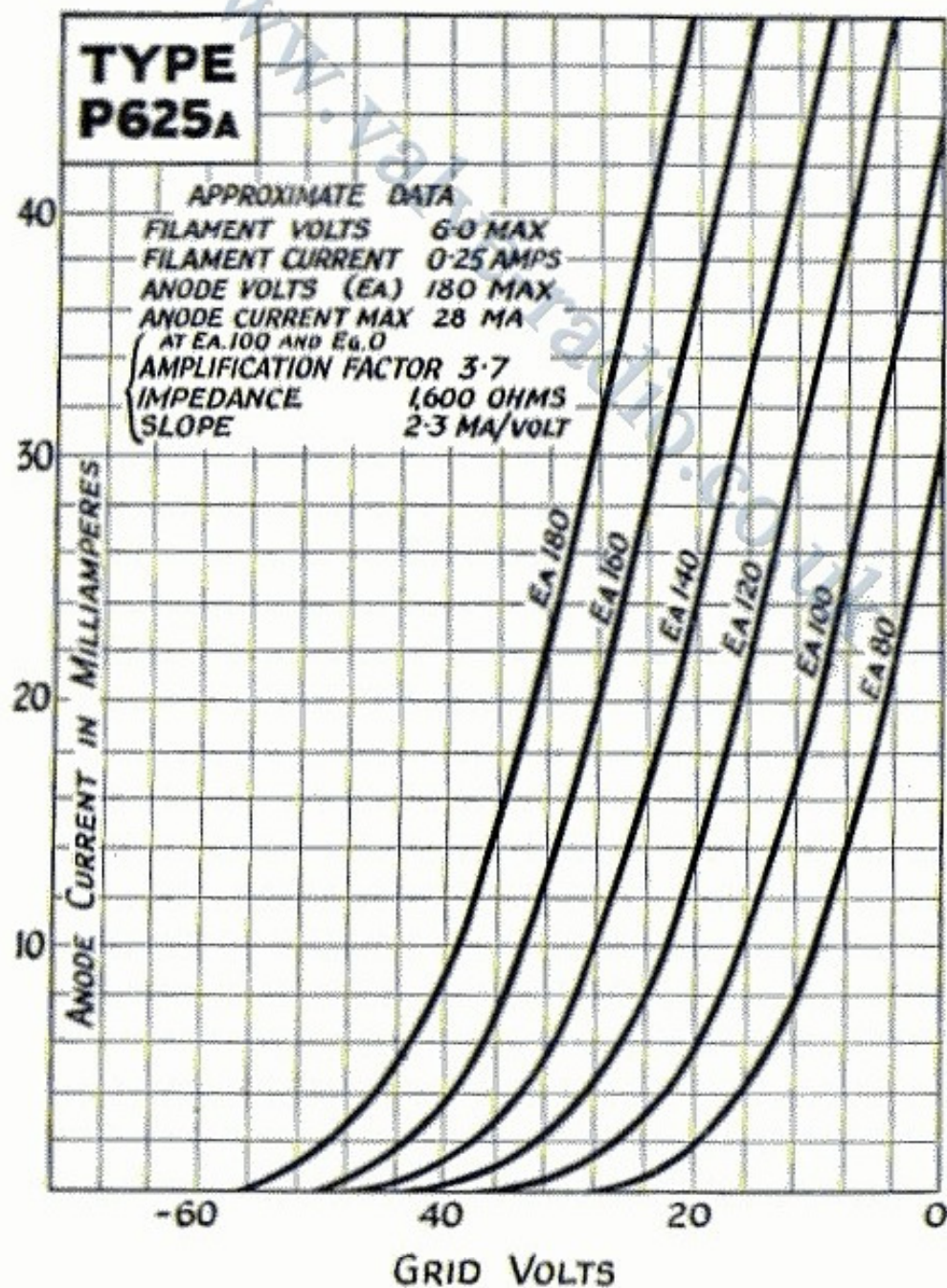
## TYPE P 625A

To avoid distortion and to obtain the best results, with the greatest economy of high tension current, a negative grid bias is necessary, approximate values for which are given below for several anode voltages.

*Approximate Operating Data—Neglecting Resistance of Output Circuit.*

Anode Volts	Negative Grid Bias Volts	Average Anode Current in Milliamperes
180	30	28
140	21	22
100	13.5	14

While the grid bias is being adjusted the high tension supply should be disconnected.



*Characteristic Curve of Average P 625A Valve.*



# MARCONI VALVES

for use with 6-volt Accumulator

## TYPES DE 5, DE 5A AND DE 5B

### POWER VALVES

#### TYPE DE 5

Eminently suitable for L.F. amplification. As last valve of an amplifier it requires a steady negative grid bias of  $-9$  volts with an anode voltage of 140. Used as a detector or high frequency amplifier, the anode voltage should be of the order of 40.

#### TYPE DE 5a

Modified DE 5 for last stage of LF amplifier, working a loud speaker of considerable power. For this purpose the grid of the valve requires a steady negative bias of about 12 volts with an anode voltage of 80 and about 20 volts with an anode voltage of 120.

#### TYPE DE 5b

A modified DE 5 with a high amplification factor. Particularly suitable for use in choke or resistance-capacity coupled amplifiers. For audio frequency amplification the anode volts may be increased to 150. Suitable negative grid bias 1.5 to 3 volts. Type DE 5 should be used in the last stage of the amplifier. Type DE 5b can also be used as an H.F. amplifier.



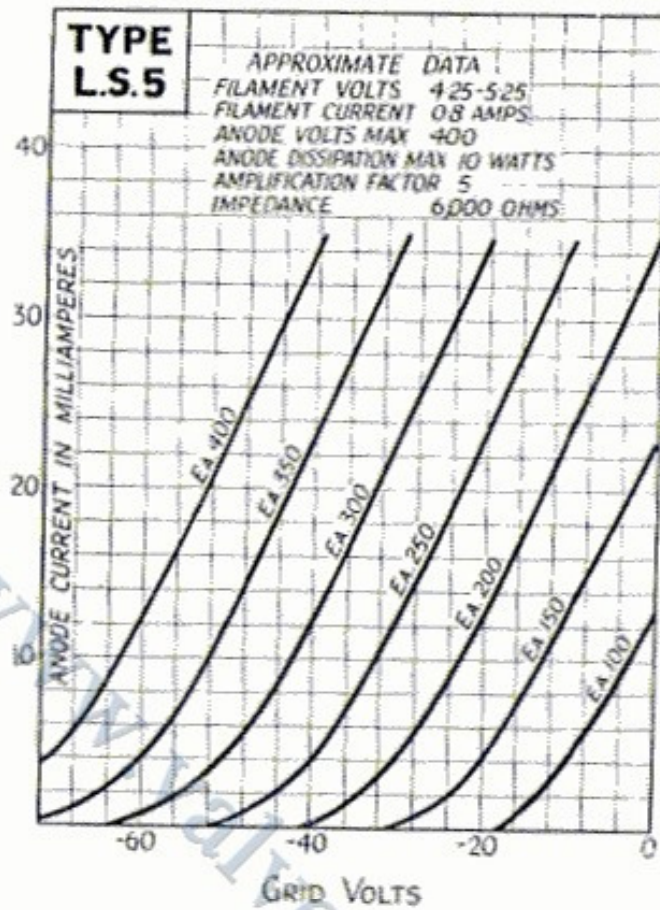
*Approximate Overall Dimensions,  
125 x 56 mm.*

Type	Fil. Volts	Fil. Current (Amps.)	Anode Volts	Amplification Factor	Impedance (Ohms)	Price
<b>DE 5</b>	5-6	0.25	140	7	7,000	<b>12/6</b>
<b>DE 5a</b>	5-6	0.25	120	3.5	4,000	<b>15/-</b>
<b>DE 5b</b>	5-6	0.25	150	20	30,000	<b>12/6</b>

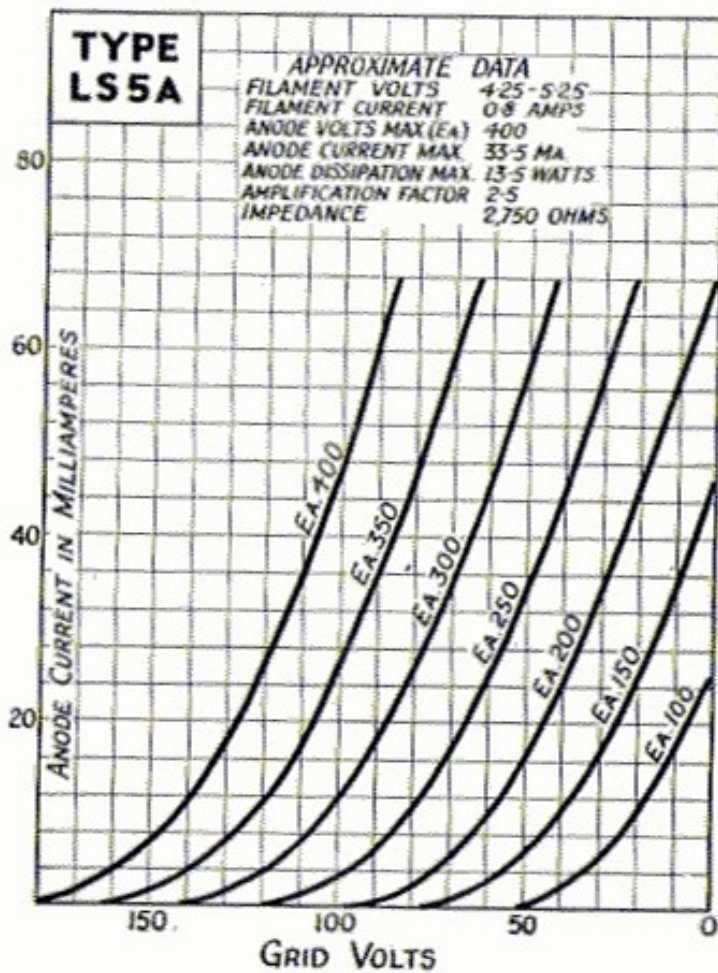


# MARCONI VALVES

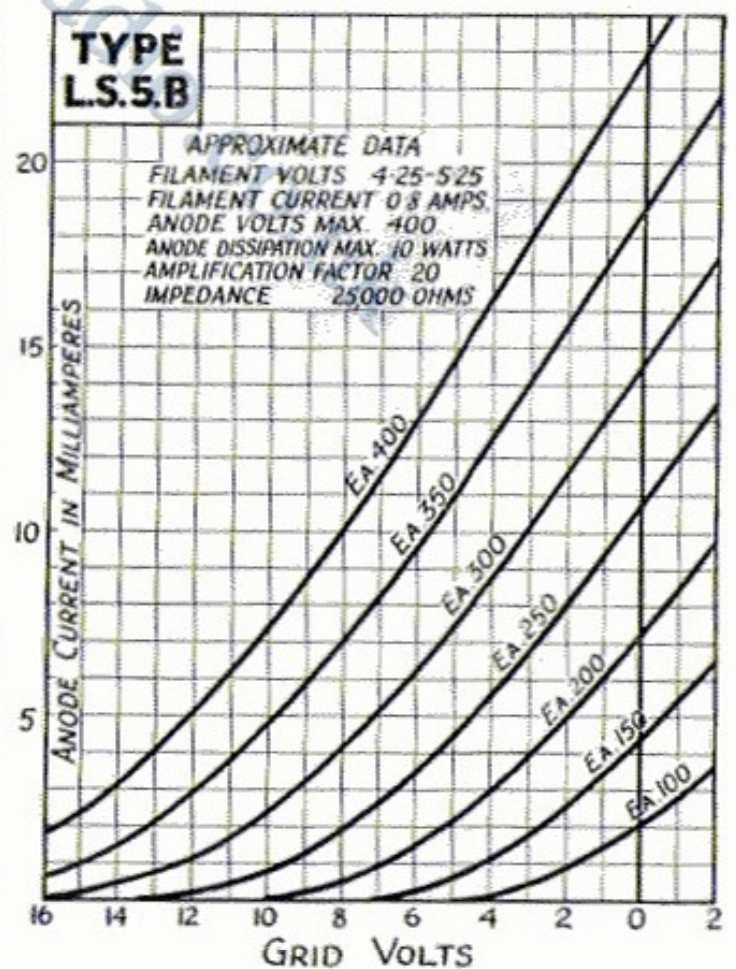
TYPES LS 5, LS 5A AND LS 5B



Characteristic Curve of Average LS 5 Valve.



Characteristic Curve of Average LS 5a Valve.



Characteristic Curve of Average LS 5b Valve.



# MARCONI VALVES

for use with 6-volt Accumulator

## TYPES LS 5, LS 5A AND LS 5B

### POWER VALVES

#### TYPE LS 5

FOR POWER AMPLIFICATION.

As a transmitter the maximum permissible anode dissipation is 10 watts. The anode voltage should not exceed 400 volts.

#### TYPE LS 5a

A modification of the LS 5, particularly suitable for the final stages of low-frequency amplifiers for large loud speakers. It will deal with considerably larger amplitudes than the L.S. 5 Valve. Maximum anode loss 13.5 watts.

#### TYPE LS 5b

A modified LS 5 having a high amplification factor, suitable for use in the early stages of an amplifier employing L.S. 5 and L.S. 5a types in the later stages. Maximum anode loss 10 watts.



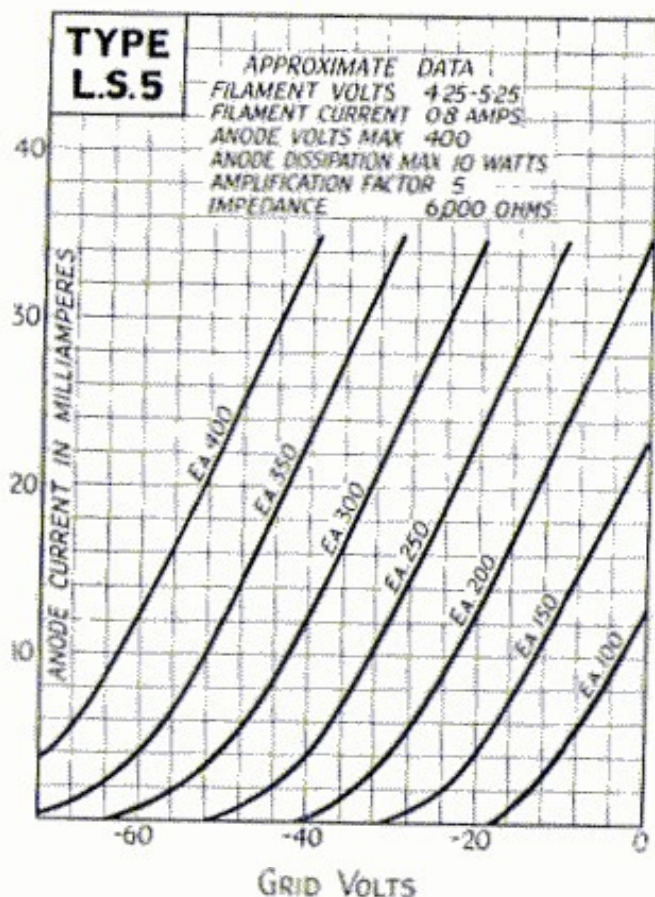
*Approximate Overall Dimensions,  
135 x 56 m/m.*

Type	Fil. Volts	Fil. Current (Amps.)	Anode Volts	Amplification Factor	Impedance (ohms)	Price
LS 5	4.25-5.25	.8	400	5	6,000	25/-
LS 5a	4.25-5.25	.8	400	2.5	2,750	25/-
LS 5b	4.25-5.25	.8	400	20	25,000	25/-

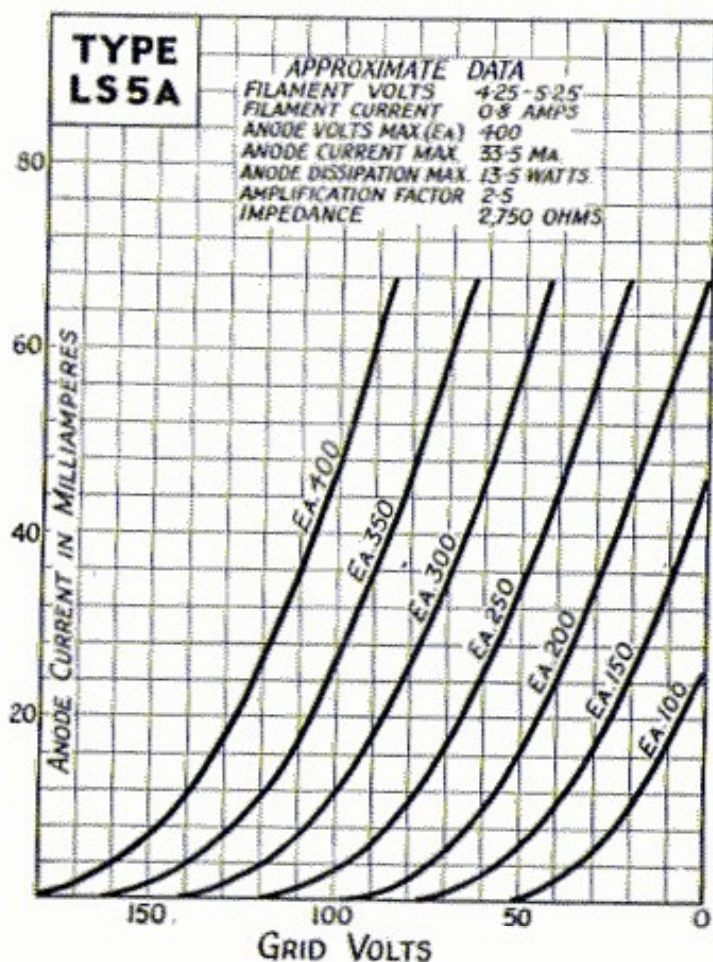


# MARCONI VALVES

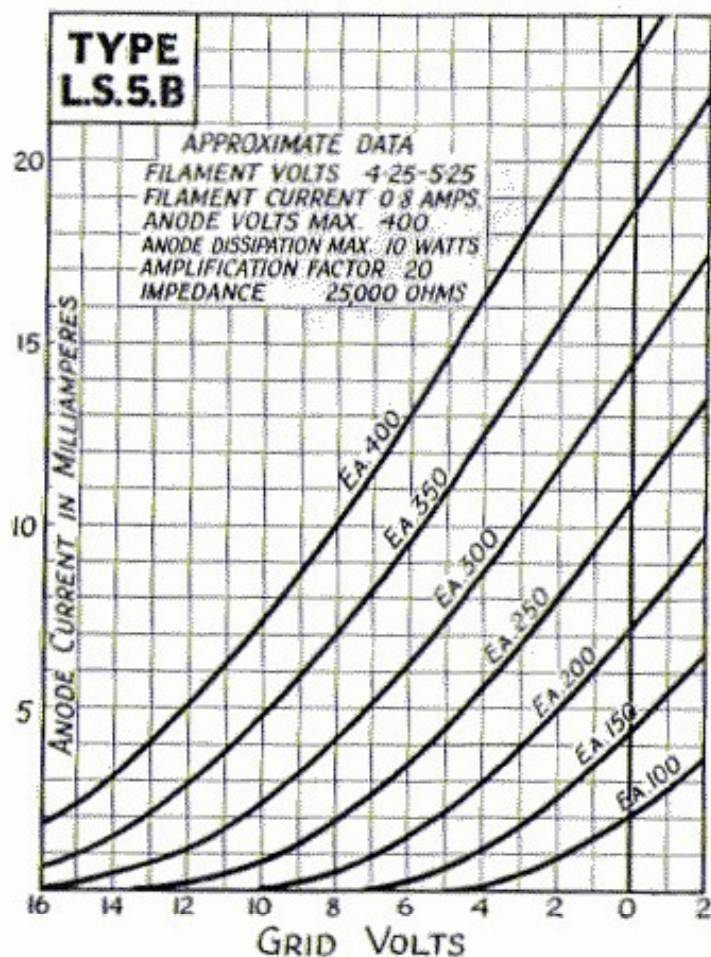
TYPES LS 5, LS 5A AND LS 5B



Characteristic Curve of Average LS 5 Valve.



Characteristic Curve of Average LS 5a Valve.



Characteristic Curve of Average LS 5b Valve.



# MARCONI VALVES

for use with 6-volt Accumulator

## TYPE LS 6A

DULL EMITTER POWER AMPLIFYING VALVE.



The LS 6A is a high power amplifying valve giving a large undistorted power output.

It is intended for use in the last stage of low frequency amplifiers, where ample power is available for the anode supply.

When operating the LS 6A valve, provision should be made for sufficient air circulation to prevent over-heating. Care should be taken to switch off the anode volts when inserting or removing the valve from its socket or when any adjustments are made to the circuits, such as alteration to grid bias.

The maximum average anode current is 63.0 milliamperes and the maximum anode volts 400. To obtain the full emission life these values should not be exceeded.

The LS 6A is designed to operate at a maximum filament voltage of 6.0. At this the emission from the filament is very large, and in many cases it will be found satisfactory and economical to run at a filament voltage between 6.0 and 5.25.

Filament Volts	...	...	6.0 max.
Filament Current	...	...	1.6 amps.
Anode Volts...	...	...	400 max.
Max. Anode Dissipation	...	...	25 watts
*Amplification Factor	...	...	3.0
*Impedance	...	...	1,300 ohms
*Normal Slope...	...	...	2.3 Ma/v
*At Anode Volts 100, Grid Volts 0			

Approximate Overall Dimensions,  
145 X 62 m/m.

Price, 30/-



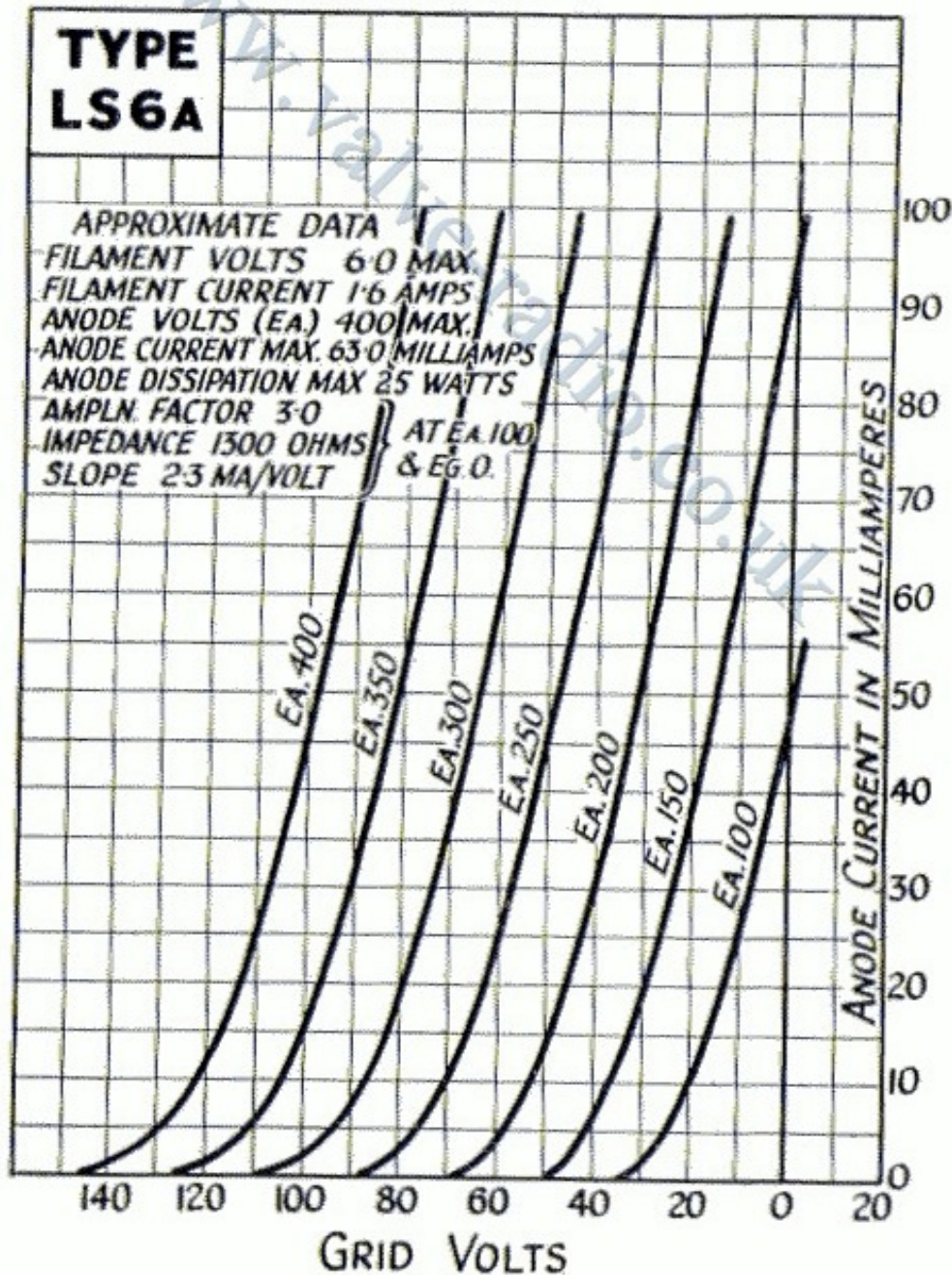
# MARCONI VALVES

## TYPE LS 6A

*Approximate Operating Data—Neglecting Resistance of Output Circuit.*

Anode Volts	Negative Grid Bias Volts	Average Anode Current in Milliamperes
400	93	63
350	78	60
300	63	55
250	50	47
200	36	40

The accompanying data is approximate only, and it will be found that individual valves vary about these figures. It is recommended that the negative grid bias voltage be adjusted for each valve, so as to obtain approximately the anode currents stated at the respective H.T. voltages in the above table.



*Characteristic Curve of Average LS 6a Valve.*



# MARCONI VALVES

for use with 6-volt Accumulator

## TYPE LS 6A

DULL EMITTER POWER AMPLIFYING VALVE.



The LS 6A is a power amplifying valve designed with large power handling capacity to supply considerable undistorted volume.

It is intended for use in the last stage of low frequency amplifiers, where provision is made for adequate high tension supply.

When operating the LS 6A valve, provision should be made for sufficient air circulation to prevent over-heating. Care should be taken to switch off the power supply when inserting or removing the valve from its socket or when any adjustments are made to the circuits, such as alteration to grid bias.

The maximum average anode current is 62.5 milliamperes and the maximum anode volts 400. To obtain the full emission life these values should not be exceeded.

Filament Volts	...	...	6.0 max.
Filament Current	...	...	1.6 amps.
Anode Volts...	...	...	400 max.
Max. Anode Dissipation	...	...	25 watts
*Amplification Factor	...	...	2.5
*Impedance	...	...	1,350 ohms
*Normal Slope...	...	...	1.85 Ma/v.
*At Anode Volts 100, Grid Volts 0			

Price, 30/-

Approximate Overall Dimensions,  
145 x 62 mm.

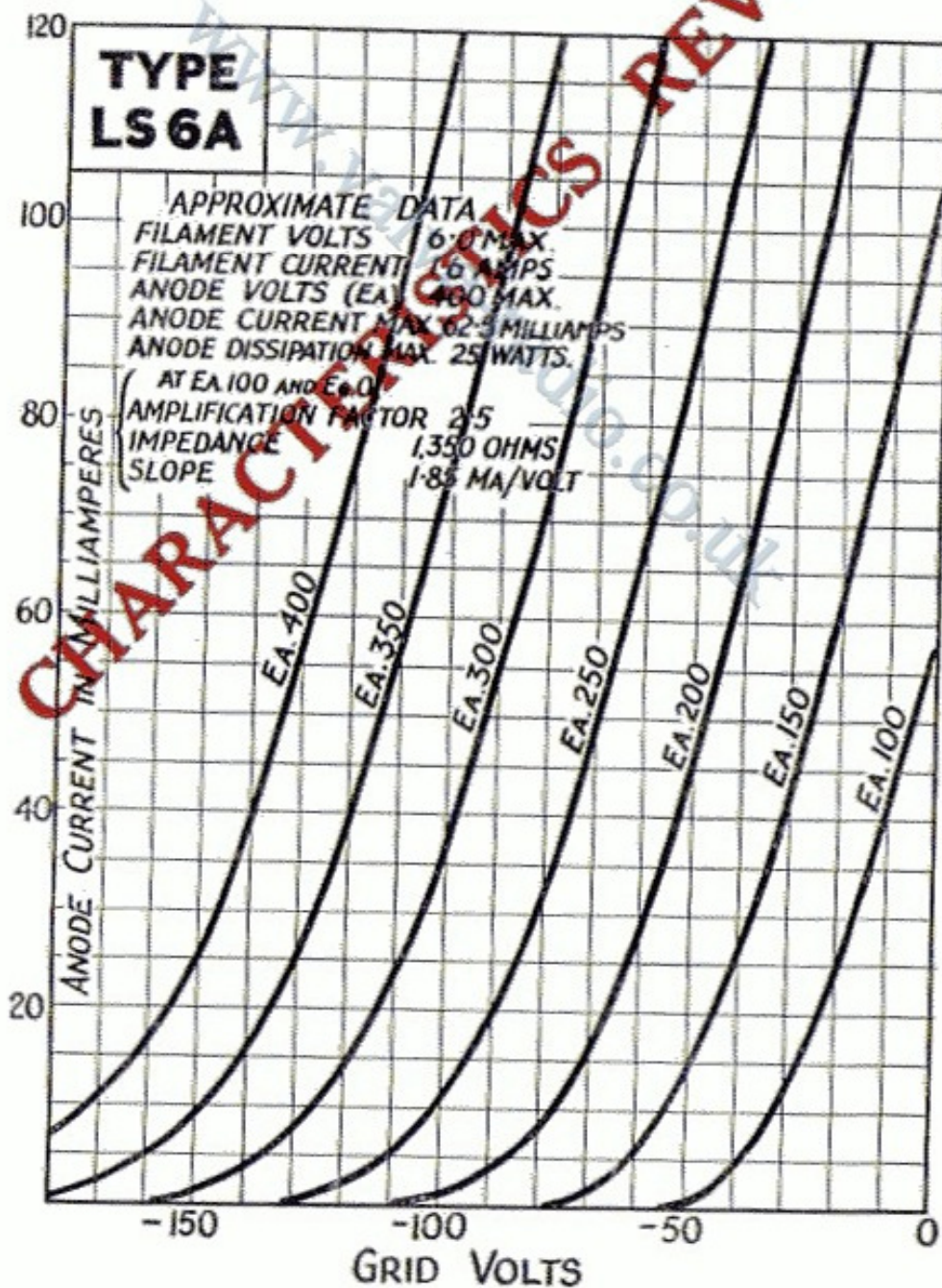


# MARCONI VALVES

## TYPE LS 6A

*Approximate Operating Data—Neglecting Resistance of Output Circuit.*

Anode Volts	Negative Grid Bias Volts	Average Anode Current in Milliamperes
400	128	62.5
350	110	57
300	90	55
250	70	50
200	50	45



*Characteristic Curve of Average LS 6a Valves.*



# MARCONI VALVES

with indirectly heated Cathodes

## TYPES KH 1 AND KL 1

### TYPE KH 1

HIGH OR LOW FREQUENCY AMPLIFYING AND DETECTOR VALVE WITH INDIRECTLY HEATED CATHODE.

Particularly suitable for use as High Frequency Amplifier, Anode Bend Detector and in Resistance Coupled Low Frequency stages.

Specially designed to work without a Low Tension Battery where an alternating current is available.

### TYPE KL 1

GENERAL PURPOSE VALVE WITH INDIRECTLY HEATED CATHODE.

The type KL1 is a valve specially designed to work without a low Tension Battery. In the ordinary Thermionic valve the heater and cathode are the same, i.e. the filament. In this valve the cathode encloses a separate heating element which may be connected to the low voltage secondary winding of a transformer of suitable ratio, fed from A.C. supply mains, without introducing any objectionable hum.

Due to the very large cathode area the KL 1 has exceptionally good characteristics, and is suitable for purposes as shown on following page.



*Approximate Overall Dimensions.*

145 x 62 mm.

#### TYPE KH 1

Heater volts	...	...	3.5 max.
Heater current	...	...	2.0 amps.
Anode volts	...	...	150 max.
Amplification factor	...	...	40
Impedance	...	...	33,000 ohms.
Normal slope	...	...	1.33 Ma/volt

Price, 15 -

#### TYPE KL 1

Heater Volts	...	...	3.5 volts
Heater Current	...	...	2.0 amps
Anode volts	...	...	150 max.
*Amplification Factor	...	...	7.5
*Impedance	...	...	3,750 ohms.
*Slope	...	...	2.0 Ma/v
*At Anode Volts 100, Grid Volts 0.			

Price, 17/6.



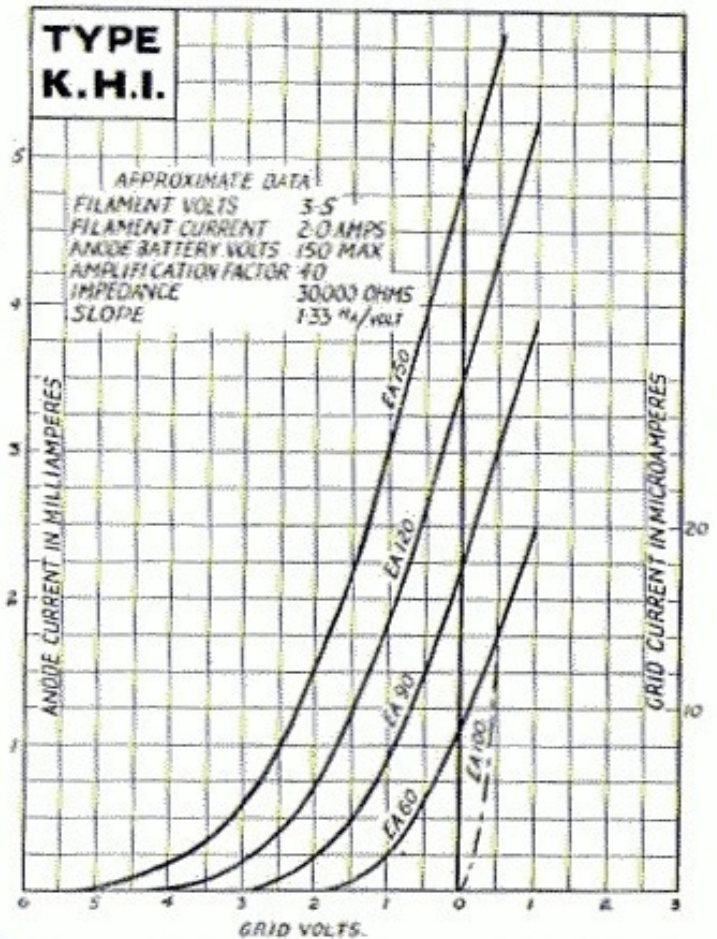
# MARCONI VALVES

## TYPES KH 1 AND KL 1

### TYPE KH 1

*Approximate Operating Data —  
Neglecting Resistance of Output Circuit.*

Anode Volts	Grid Bias Volts.
20-40	<b>As Grid Leak Detector :—</b> + 1½
	<b>As Anode Bend Rectifier :—</b> — 1½ to 4½
60-150	<b>In High Frequency Amplifier :—</b> Positive, zero or negative according to method of stabilizing or damping circuit.
100-150	<b>In Low Frequency Amplifier (not last stage) :—</b> — 1½ to — 2



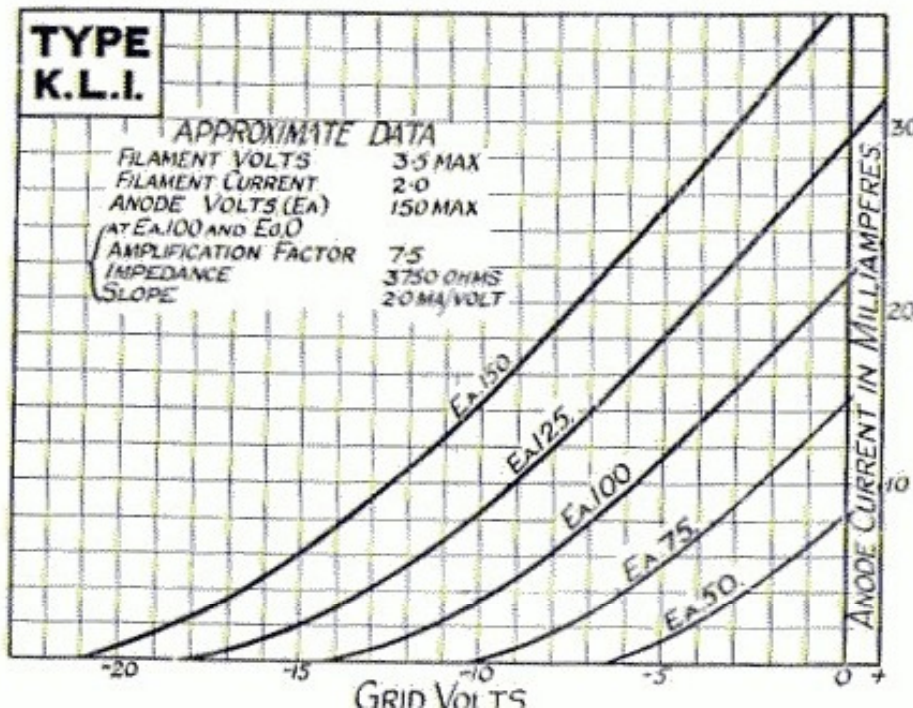
*Characteristic Curve of Average KH 1 Valve.*

	Anode Volts	Grid Bias Volts
<b>In High Frequency Amplifier</b>	50-150	Positive, zero or negative, according to method of stabilizing or damping.
<b>As Grid Leak Detector.</b>	50-150	1½ volts Positive.
<b>In Low Frequency Power Amplifier</b>	50-150	3 to 10½ volts negative.

### TYPE KL 1

*Approximate  
Operating Data—  
Neglecting Resistance  
of Output Circuit.*

*Characteristic  
Curve  
of  
Average  
KL 1 Valve.*





# MARCONI VALVES

for operation from Alternating Current Mains

## TYPE S POINT 8

DULL EMITTER A.C. SCREEN GRID HIGH FREQUENCY AMPLIFYING VALVE.



Approximate Overall Dimensions,  
136 × 44 mm.

The S Point 8 is a specially designed high frequency amplifying valve, having four electrodes, in which the inter-electrode capacity effect, so detrimental to high frequency amplification, has been nullified by the introduction of a screening grid. The anode is connected to a terminal on the top of the valve and the screen grid to the ordinary anode pin of the valve cap.

In addition, the filament is so constructed as to make the valve suitable for operating directly from the Alternating Current Mains through a suitable transformer, without the introduction of A.C. hum into the circuit.

When used in a suitable circuit and under the conditions specified a greater magnification per stage can be obtained than when using ordinary three electrode valves in a stabilised circuit.

The grid return lead should be joined to the slider or centre point of a potentiometer connected across the filament.

Anode Volts	Negative Grid Bias Volts	Screened Grid Volts
120	0 to $1\frac{1}{2}$	80

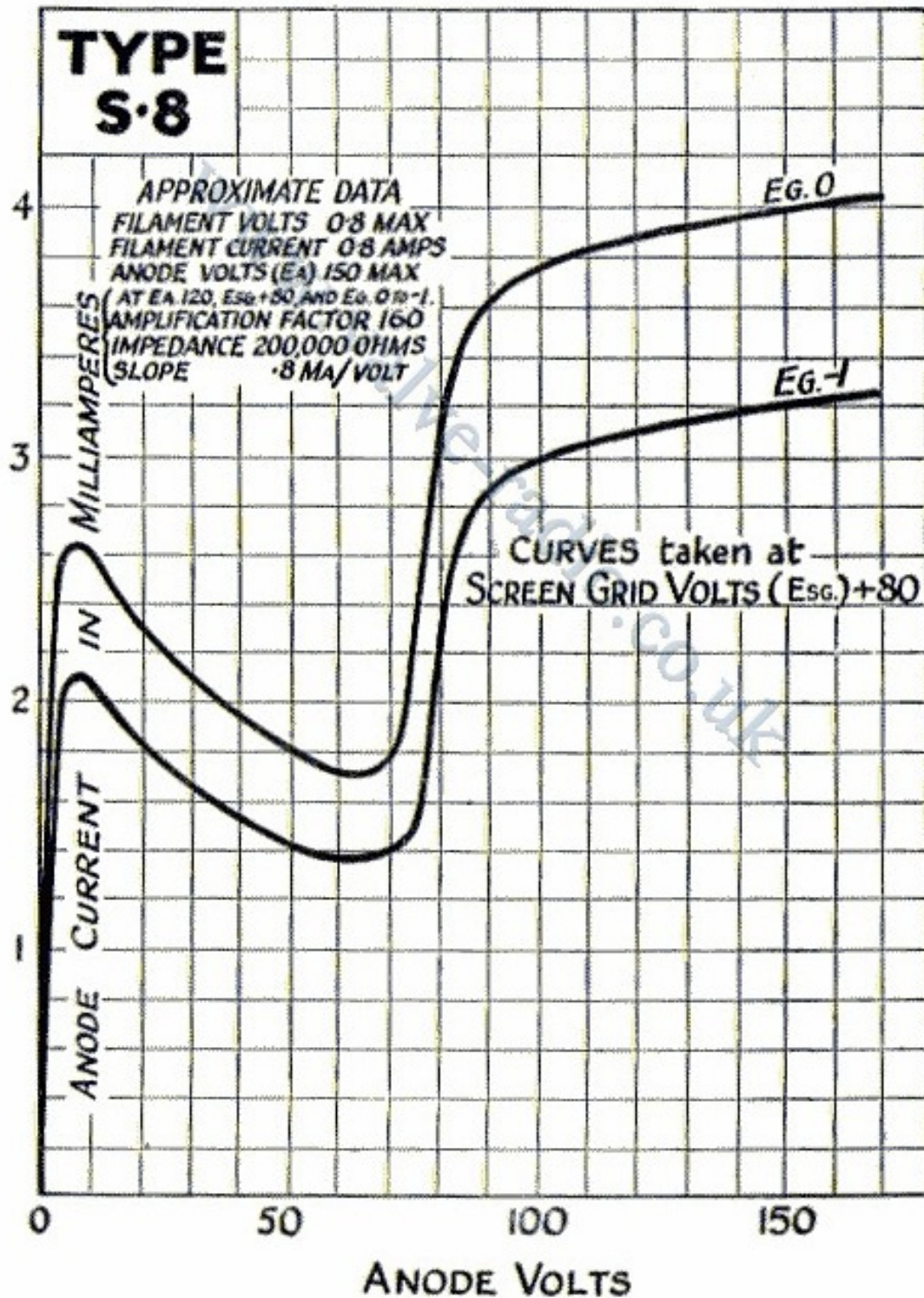
Filament Volts ... .. 0.8 max.  
Filament current ... .. 0.8 amps.  
Anode volts ... .. 100-150 max  
Screen grid volts ... .. 60-90 max.  
\*Amplification factor ... .. 160  
\*Impedance ... .. 200,000 ohms.  
\*Normal Slope ... .. 0.8 Ma/v.  
\*At Anode Volts 120, Screen Grid Volts,  
80, Grid Volts 0 to -1.

Price, 25/-



# MARCONI VALVES

## TYPE S POINT 8



*Characteristic Curve of Average S.8 Valve.*

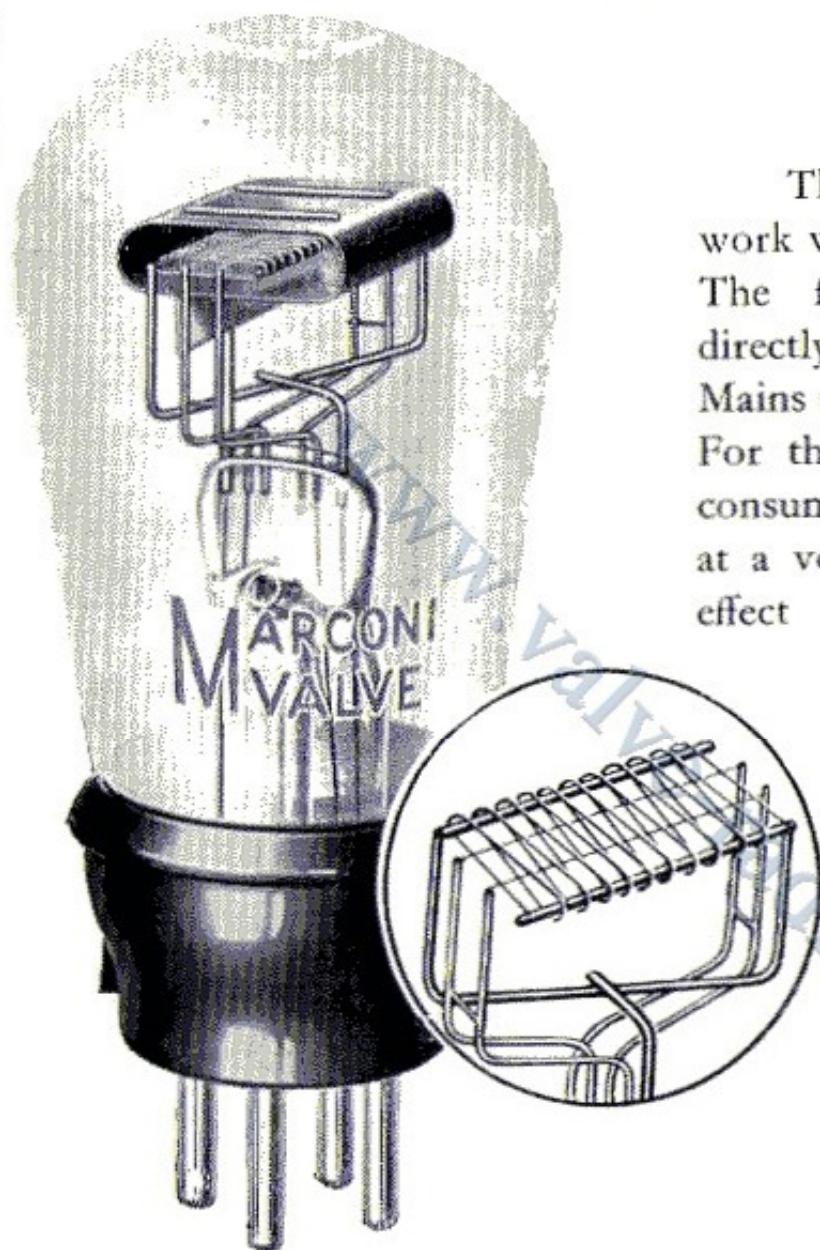


# MARCONI VALVES

for operating from A.C. mains

## TYPE H POINT 8

DULL EMITTER A.C. RESISTANCE-CAPACITY AMPLIFYING VALVE.



*Approximate  
Overall Dimensions,  
103 x 46 mm.*

Fil. Volts. ....0.8 max.  
Fil. Current ...0.8 amps.  
Anode Volts. ... 150 max.  
\*Amp. Factor .....40  
\*Impedance... 55,000 ohms.  
\*Normal Slope .73 Ma/v.  
\*At Anode Volts 100  
Grid Volts 0

The H.8 is a valve designed to work without a low tension battery. The filament should be operated directly from the Alternating Current Mains through a suitable transformer. For this purpose it is constructed to consume a moderately high current at a very low voltage; this has the effect of materially reducing the introduction of A.C. hum into the Receiving set.

The valve has a high amplification factor, making it suitable for the following purposes

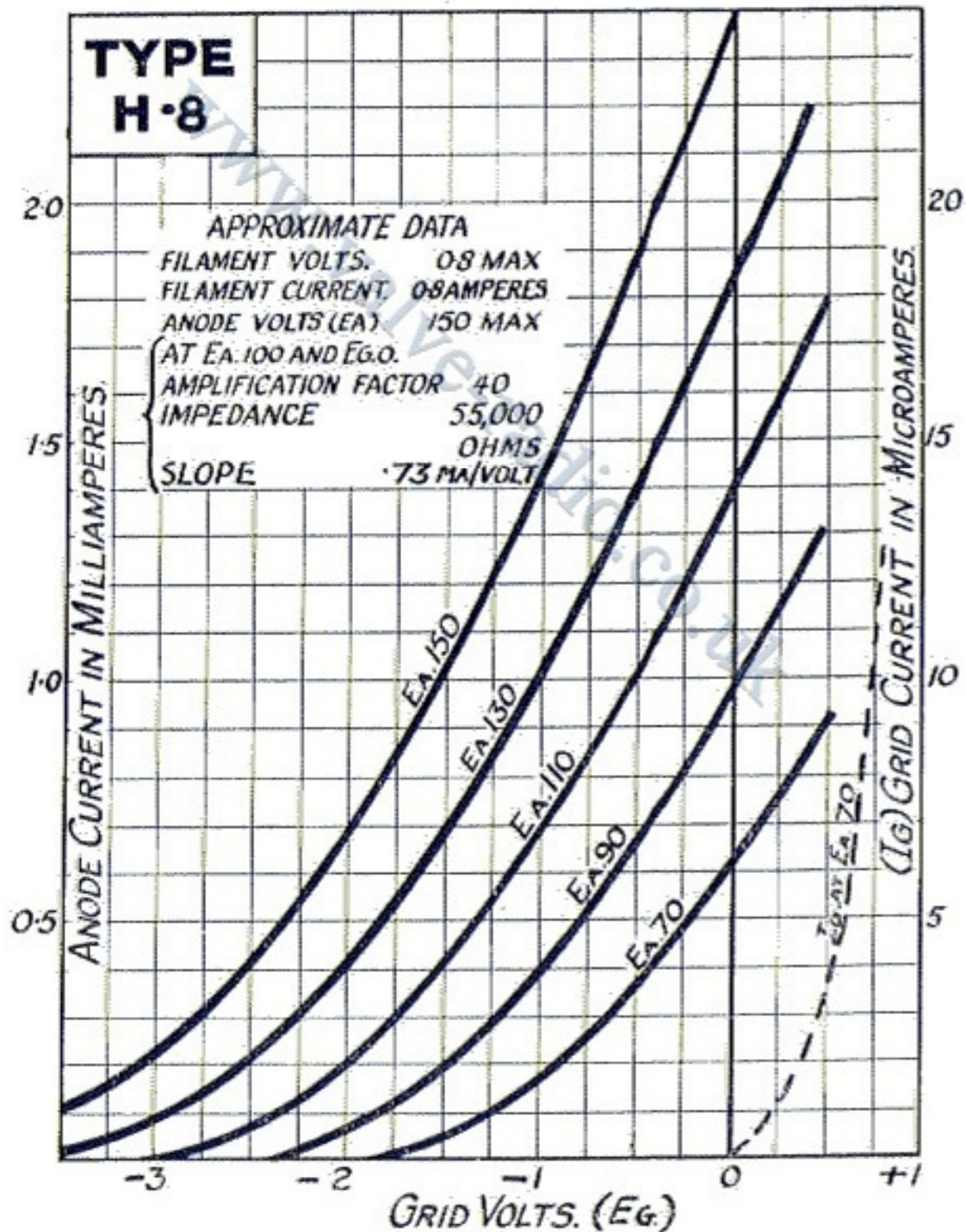
1. In resistance-capacity coupled amplifiers, except in the last stages. Anode volts 150, negative grid bias  $1\frac{1}{2}$  volts.
2. In high frequency amplifiers, where a circuit with some form of stabilising or damping is employed.
3. As a detector valve using anode bend rectification. Anode Volts 75 to 150, negative grid bias  $1\frac{1}{2}$  to 3 volt. This valve is not recommended for use as a Detector using grid leak and condenser.

Price, 7/15/-



# MARCONI VALVES

## TYPE H POINT 8



Characteristic Curve of Average H.8 Valve.



# MARCONI VALVES

for operating from A.C. Mains

## TYPE HL POINT 8

DULL EMITTER A.C. HIGH FREQUENCY AND LOW FREQUENCY AMPLIFYING VALVE.



*Approximate  
Overall Dimensions,*

103 × 46 m/m.

Fil. Volts .....0.8 max.  
 Fil. Current .....0.8 amps.  
 Anode Volts .....150 max.  
 \*Amp. Factor .....17  
 \*Impedance 17,000 ohms.  
 \*Normal Slope 1.00 Ma/v.  
 \*At Anode Volts 100  
     Grid Volts 0

Price, 15/-

The HL.8 is a valve designed to work without a low tension battery. The filament should be operated directly from the Alternating Current Mains through a suitable transformer. For this purpose it is constructed to consume a moderately high current at a very low voltage; this has the effect of materially reducing the introduction of A.C. hum into the Receiving set.

The Valve has characteristics making it specially suitable for the following purposes:

1. In high frequency amplifying circuits, where some form of stabilising or damping is employed.
2. As a detector valve using anode bend rectification. Anode volts 75 to 150, negative grid bias 3 to 7½ volts. This valve is not recommended for use as a detector using grid leak and condenser.
3. In the first stage of low frequency amplifiers.

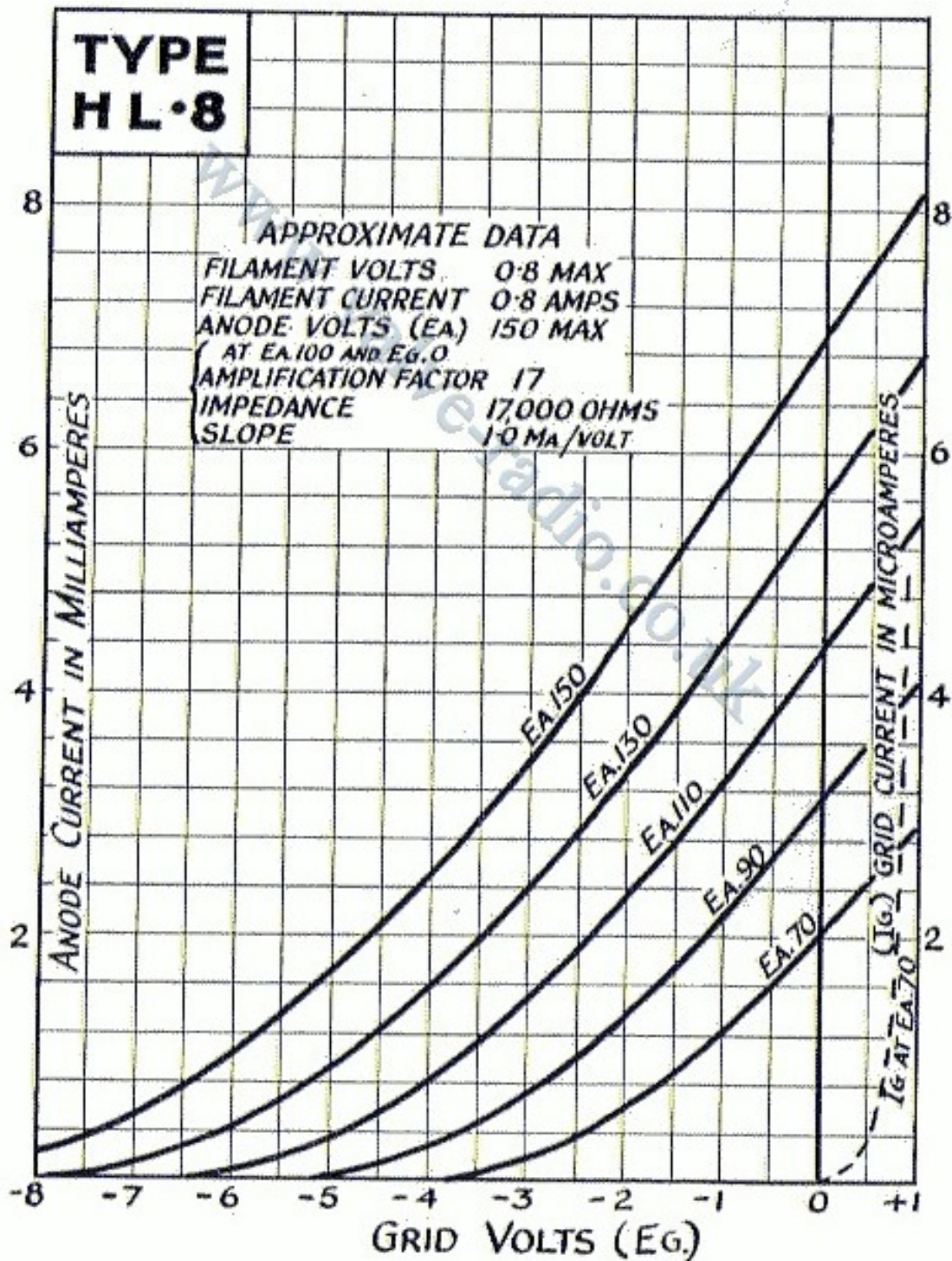
*Approximate Operating Data—  
Neglecting Resistance of Output Circuit.*

Anode Volts	Negative Grid Bias Volts	Anode Current in milliamperes
150	3 to 4.5	3.5 to 2.2
120	3	2.0
90	1.5	1.7



# MARCONI VALVES

## TYPE HL POINT 8



Characteristic Curve of average HL-8 Valve.

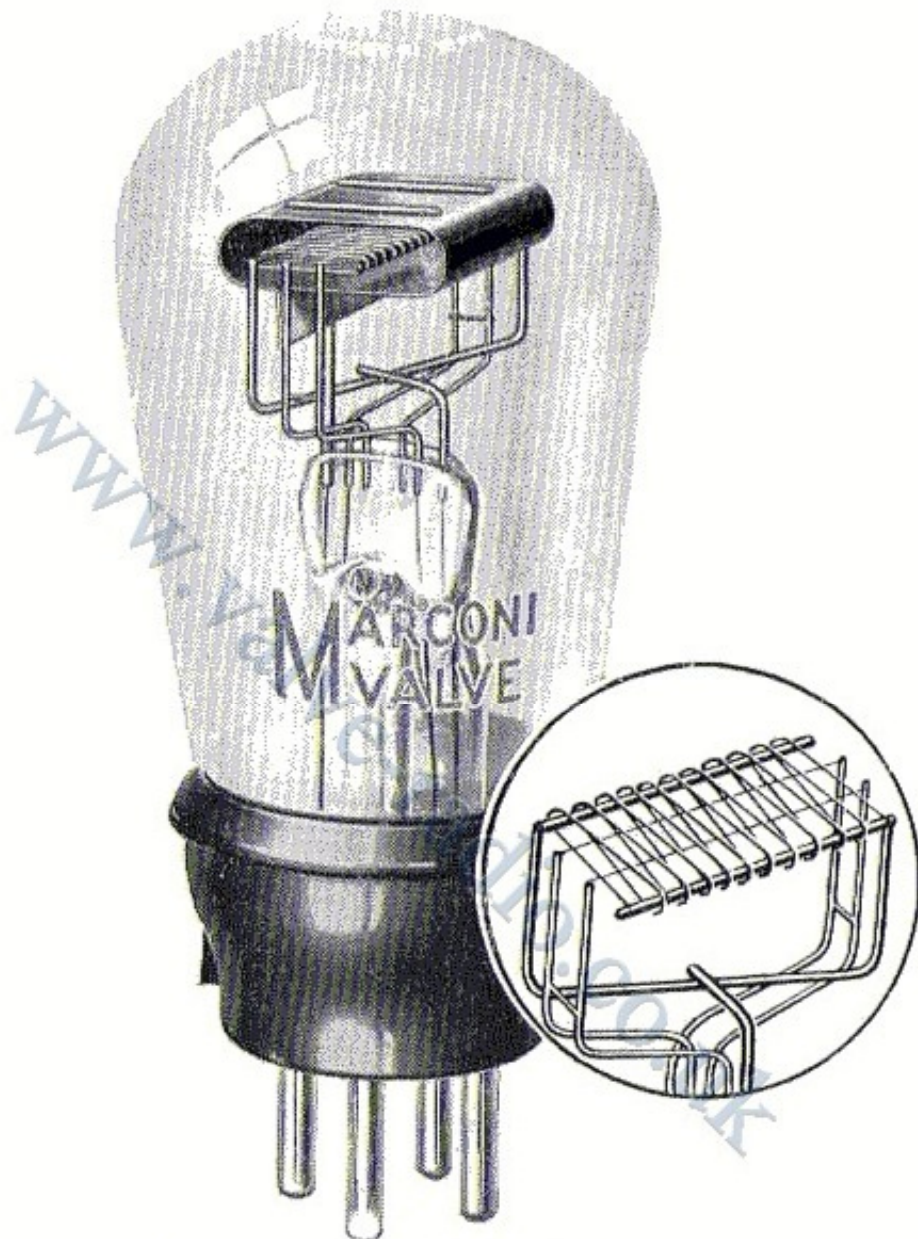


# MARCONI VALVES

for operating from A.C. Mains

## TYPE P POINT 8

DULL EMITTER A.C. LOW FREQUENCY AND POWER AMPLIFYING VALVE.



*Approximate Overall Dimensions,  
103 × 46 m/m*

Fil. Volts .....0.8 max.  
Fil. Current .....0.8 amps.  
Anode Volts .....150 max.  
\*Amp. Factor.....6  
\*Impedance ...6,000 ohms.  
\*Normal Slope...1.0 Ma/v.  
\*At Anode Volts 100  
Grid Volts 0

**Price, 17/6**

The P.8 is a valve designed to work without a low tension battery. The filament should be operated directly from the Alternating Current Mains through a suitable transformer. For this purpose it is constructed to consume a moderately high current at a very low voltage; this has the effect of materially reducing the introduction of A.C. hum into the Receiving set.

The valve has a low impedance, making it suitable as a low frequency or power amplifier.

For greater output any Marconi Super Power valve can be used in the last stage in conjunction with a suitable filament transformer.



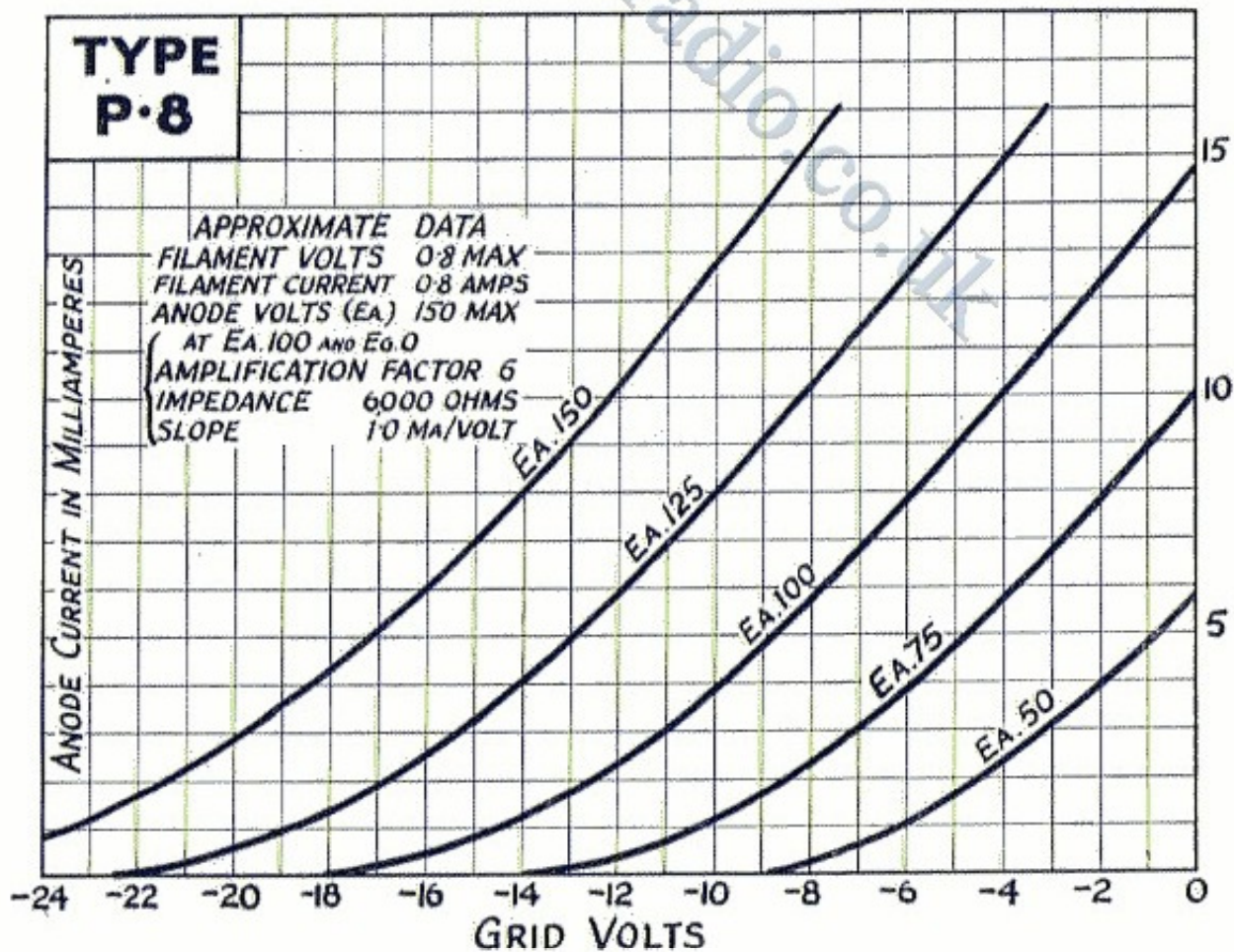
# MARCONI VALVES

## TYPE P POINT 8

To avoid hum, the grid return lead should be taken to the slider or centre point of a potentiometer connected across the filament.

*Approximate Operating Data—Neglecting Resistance of Output Circuit.*

Anode Volts	Negative Grid Bias Volts	Average Anode Current in milliamperes
150	12	10.0
125	10.5	7.5
100	7.5	6.0
75	6.0	4.0



*Characteristic Curve of average P.8 Valve.*



# MARCONI VALVES

for operation from A.C. Mains

## TYPE PT POINT 8

DULL EMITTER A.C. PENTODE LOW FREQUENCY AMPLIFYING VALVE.



*Approximate Overall Dimensions,  
110 × 51 mm.*

The Pentode Point 8 is an entirely new design of valve, designed for use in the last stage of amplifiers operating from A.C. mains. Its construction embodies three grids in addition to the filament and anode. The innermost is the control grid, and is connected to the ordinary grid pin on the cap. The middle or screen grid is connected to a small terminal on the side of the cap, and the third grid is joined internally to the filament.

The filament should be operated from the A.C. supply, fed through a suitable transformer. For this purpose it is constructed to consume a moderately high current at very low filament voltage.

The characteristic of the Pentode Point 8 is the large output in conjunction with high amplification factor, thus making it very suitable in the last stage only of sets where it is desired to amplify weak signals without the use of an additional low frequency amplifying valve.

Filament volts	.....0.8 max.	*Amplification factor	.....75
Filament current	.....1.5 amps.	*Impedance	.....45,000 ohms.
Anode volts	.....150 max.	*Normal Slope	.....1.65 Ma/v.
Screen grid volts	.....150 max.		

**Price, 27/6**

*\*At Anode Volts 150, Screen Grid Volts, 100*

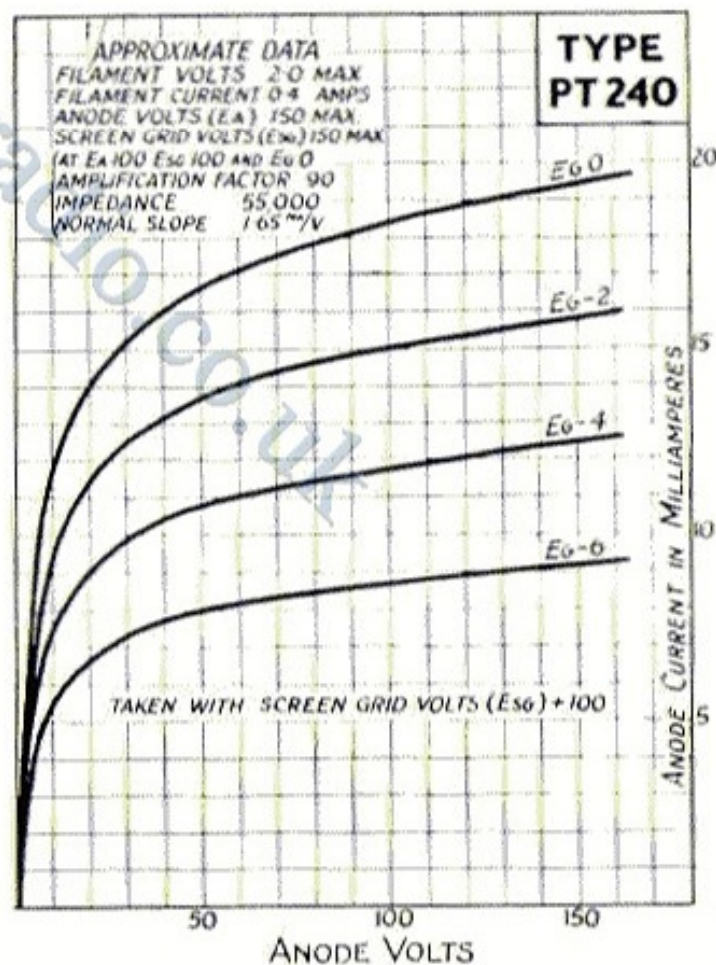
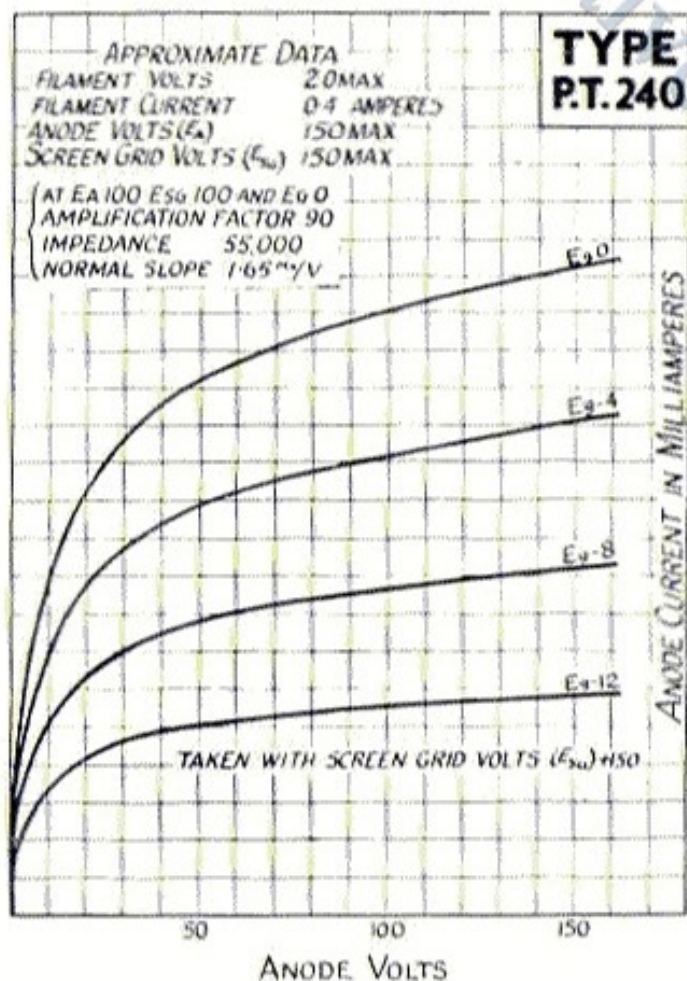


# MARCONI VALVES

## TYPE PT 240

*Approximate Operating Data—Neglecting Resistance of Output Circuit.*

Anode Volts	Screen Volts	Negative Grid Bias Volts	Average Anode Current in milliamperes
150	150	9	16
120	100	6	9



*Characteristic Curves of Average PT 240 Valve.*



# MARCONI VALVES

for use with 2-volt Accumulator

## TYPE PT 235

DULL EMITTER PENTODE LOW FREQUENCY AMPLIFYING VALVE



The PT 235 is an entirely new design, being constructed with three grids, in addition to the filament and anode. The innermost of these three grids is the control grid connected to the ordinary grid pin; the middle grid is connected to a small terminal on the side of the cap, and the third is joined internally to the filament.

The characteristics of the PT 235 is the large output in conjunction with high amplification factor, this making it very suitable in the last stage only of sets where it is desired to amplify weak signals without the use of an additional low frequency amplifying valve.

Price, 25/-

*Approximate Overall Dimensions,  
110 × 51 mm.*

Filament Volts ..... 2.0 max.  
Filament Current ..... 0.35 amps.  
Anode Volts (Ea.) ..... 150 max.  
Screen Grid Volts (Esg) ..... 150 max.

\*Amplification Factor..... 90  
\*Impedance ..... 55,000 ohms.  
\*Normal Slope ..... 1.65 Ma/v.

*\*At Anode Volts 100, Screen Grid Volts 100, Grid Volts 0.*

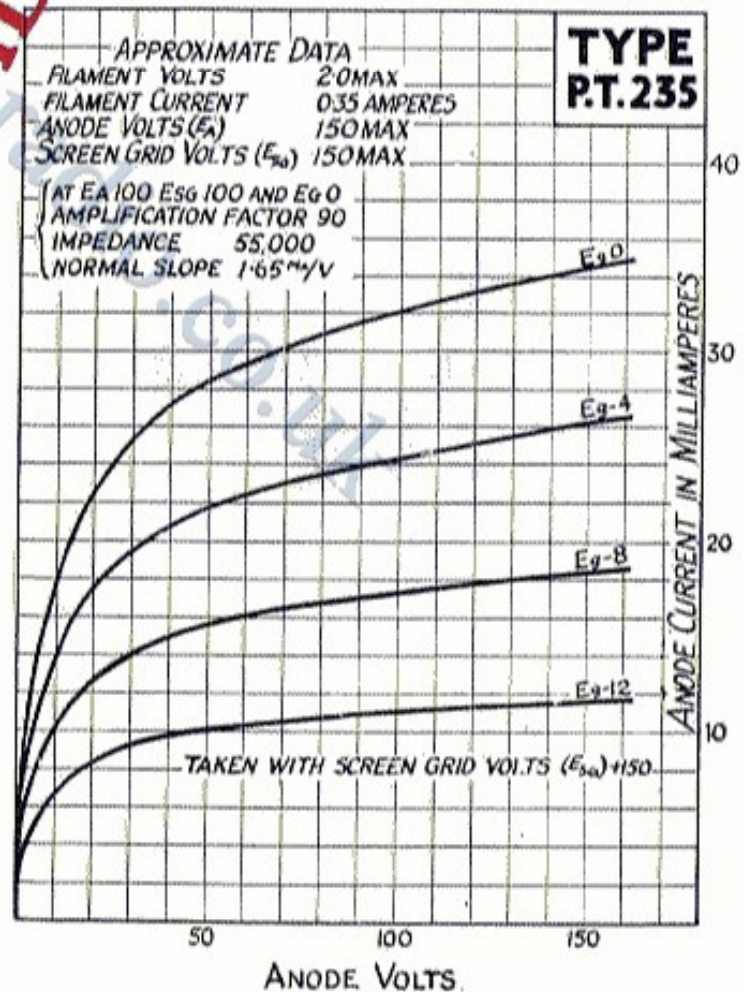
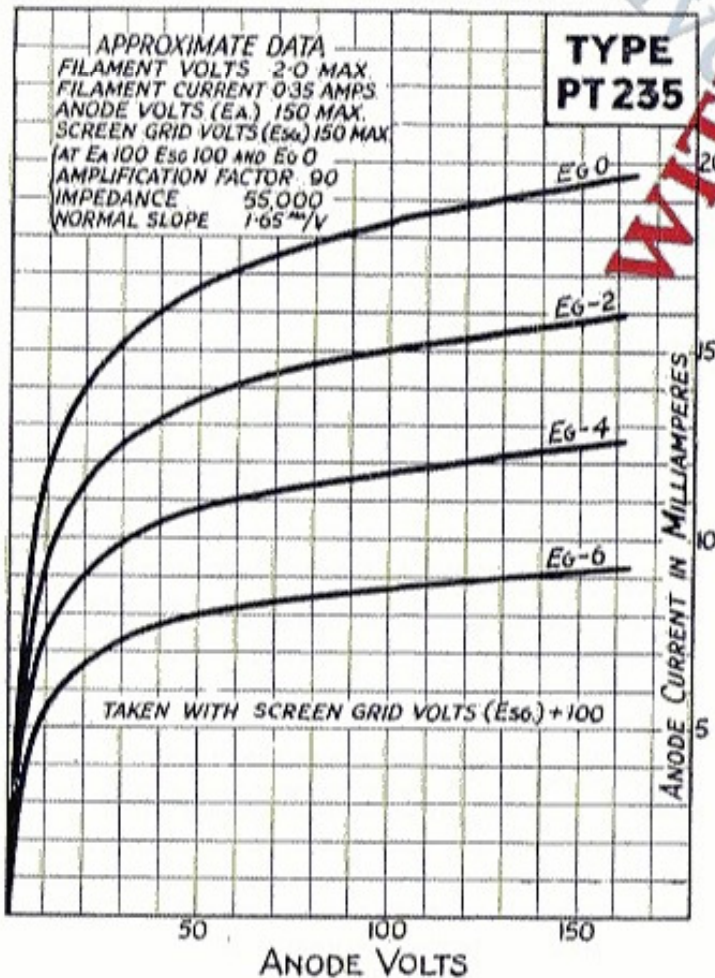


# MARCONI VALVES

## TYPE PT 235

*Approximate Operating Data—Neglecting Resistance of Output Circuit.*

Anode Volts	Screen Volts	Negative Grid Bias Volts	Average Anode Current in milliamperes
150	150	9	16
120	100	6	9



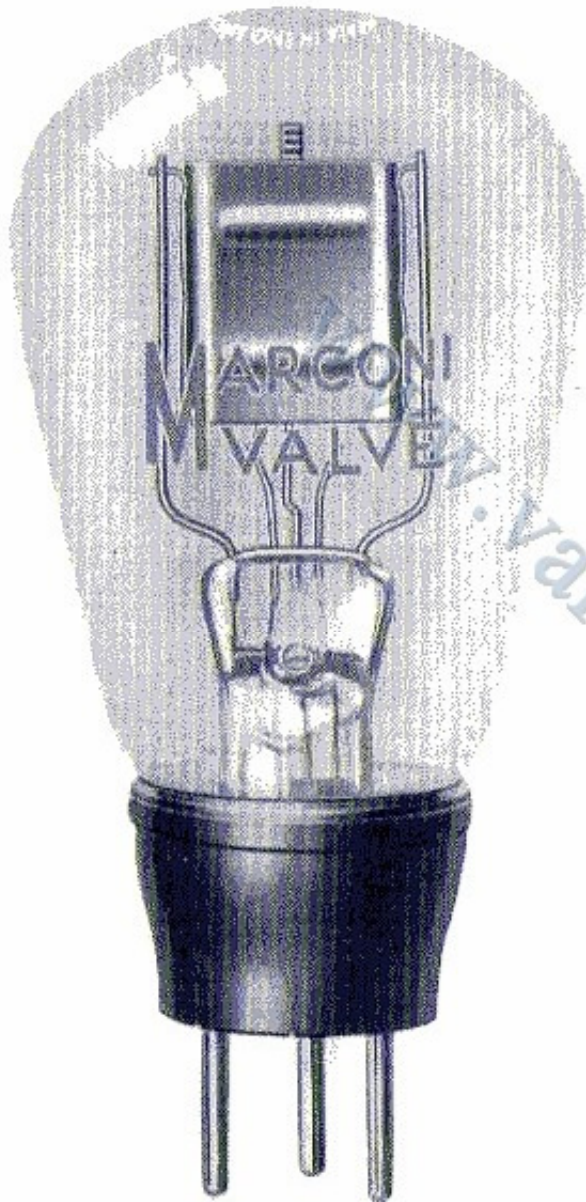
*Characteristic Curves of Average PT 235 Valve.*



# MARCONI VALVES

## TYPE U4

### RECTIFYING VALVE



*Approximate Dimensions,*

*125 m/m × 56 m/m.*

A Two-electrode Dull-emitter Valve designed for use as a rectifier for supplying high-tension current for wireless receivers from alternating current mains through a suitable smoothing circuit. The valve provides half-wave rectification at Alternating Current input voltages up to 220 volts (R.M.S.). The maximum rectified current, as measured with a moving coil meter, should not exceed 15 milliamps. This current is sufficient for most receivers other than those employing special power valves.

The normal filament voltage is 5.8 volts and it is important that this voltage should not become less than 5.6 or more than 6.0 volts through variations in the supply voltage or any other reason, otherwise its life will be considerably shortened. The rectified voltage must not, in any case, be adjusted by dimming the filament as this is harmful to the valve. If adjustment is desired other than that provided by transformer tapings a variable high-resistance should be connected in series with the load.

Filament Volts	...	...	...	...	...	5.6/6.0
Filament Current	...	...	...	...	...	.25 amps.
Anode Volts (R.M.S.)	...	...	...	...	...	220 max.
Impedance	...	...	...	...	...	1,200 ohms.
Max. rectified current	...	...	...	...	...	15 milliamperes.

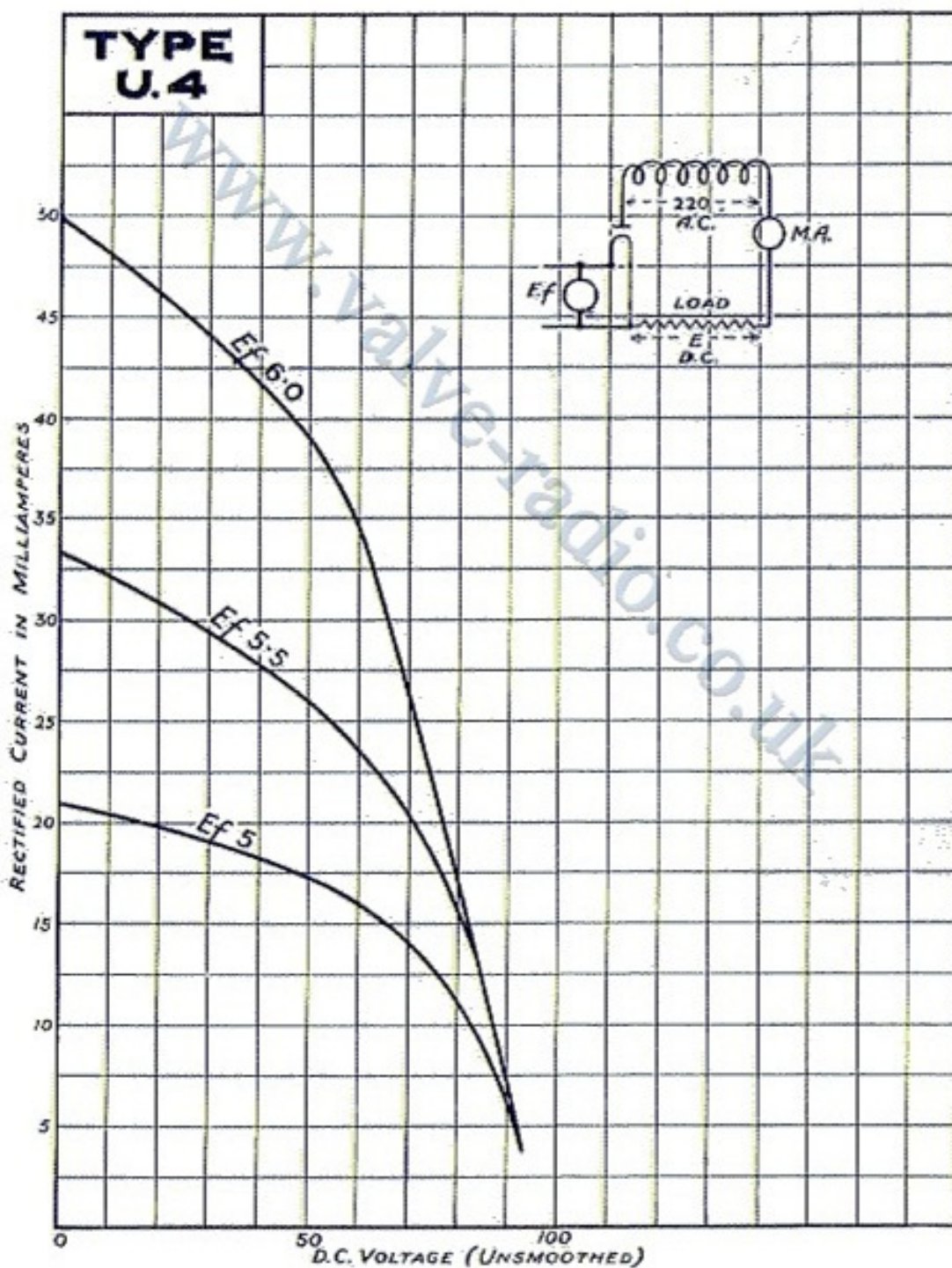
**Price 15/-**



# MARCONI VALVES

TYPE U 4

RECTIFIER



*Characteristic Curve of Average U.4 Valve.*



# MARCONI VALVES

## TYPE U 5

### FULL WAVE RECTIFYING VALVE

An entirely new departure in rectifying valves since it incorporates a double electrode system in one bulb, providing rectification of both halves of the Alternating Current wave. One of the principal advantages of this system is the substantial simplification which becomes possible in the design of the smoothing system. It is therefore particularly suitable for supplying all types of wireless receiving sets with H.T. from A.C. mains through a suitable smoothing circuit. The filament is designed for a long life with ample and constant emission throughout, when operated at its rated voltage.

The input A.C. voltage may be taken up to 400 + 400 volts (R.M.S.) and the rectified current should not exceed 60 milliamperes on a moving coil meter. Variation in output voltage should never be made by dimming the filament, but may be made as follows :—

1. By tappings in the transformer secondary.
2. By the use of high resistance in series with the output.
3. By the use of a potentiometer. In this case, however, the total current taken by the potentiometer and load must not be greater than 50 milliamperes.

*Approximate Dimensions,*

135 m/m × 56 m/m.

Filament volts	...	...	...	...	...	...	...	5.0
Filament current	...	...	...	...	...	...	...	1.6 amps.
Anode volts (R.M.S.)	...	...	...	...	...	400 + 400	max.	
Impedance	...	...	...	...	...	...	300 ohms.	
Max. rectified current	...	...	...	...	...	...	60 milliamperes.	

Price, 20/-

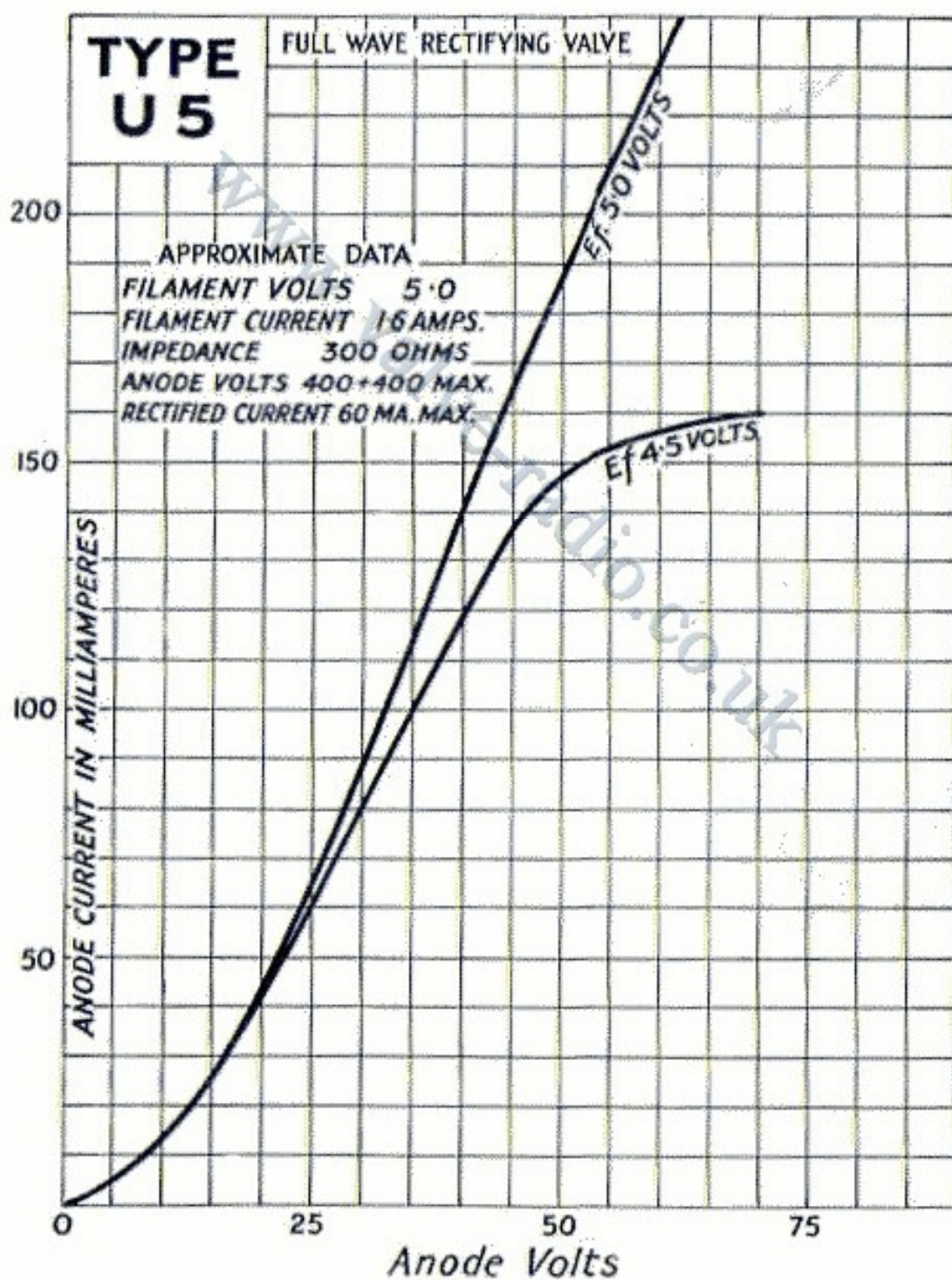




# MARCONI VALVES

TYPE U 5

RECTIFIER



*Characteristic Curve of Average U 5 Valve.*



# MARCONI VALVES

## TYPE U 8

DULL EMITTER, FULL WAVE RECTIFYING VALVE.



*Approximate Overall Dimensions,  
145 × 62 m/m.*

Filament Volts..... 7.5 max.  
Filament Current ..... 2.4 amperes  
Anode Volts, max. ... 500 + 500 R.M.S.  
Impedance..... 150 ohms.  
Rectified Current  
120 milliamperes max.

**Price, 22/6**

The U 8 type valve is a dull emitter rectifying valve incorporating a dual electrode system in one bulb. Rectification of both half cycles of the A.C. wave is obtained when the valve is used in High Tension Battery Eliminators fed from A.C. mains, with a consequent simplification of the necessary smoothing system.

The input voltage to the anodes should not exceed 500 volts RMS, and the rectified current as measured on a moving coil meter should not exceed 120 milliamperes. The output of this valve when fed through suitable Power Amplifying valves is sufficient for the operation of Loud Speakers of the moving coil type, and may also be used for supplying the field current to suitably designed coils of the same instruments.

The filament voltage should not exceed 7.5 volts, and the output voltage should not be controlled by variation of the filament brilliancy. Attention to these details will ensure a long useful life.

Variation in output voltage may be obtained in the following manner.

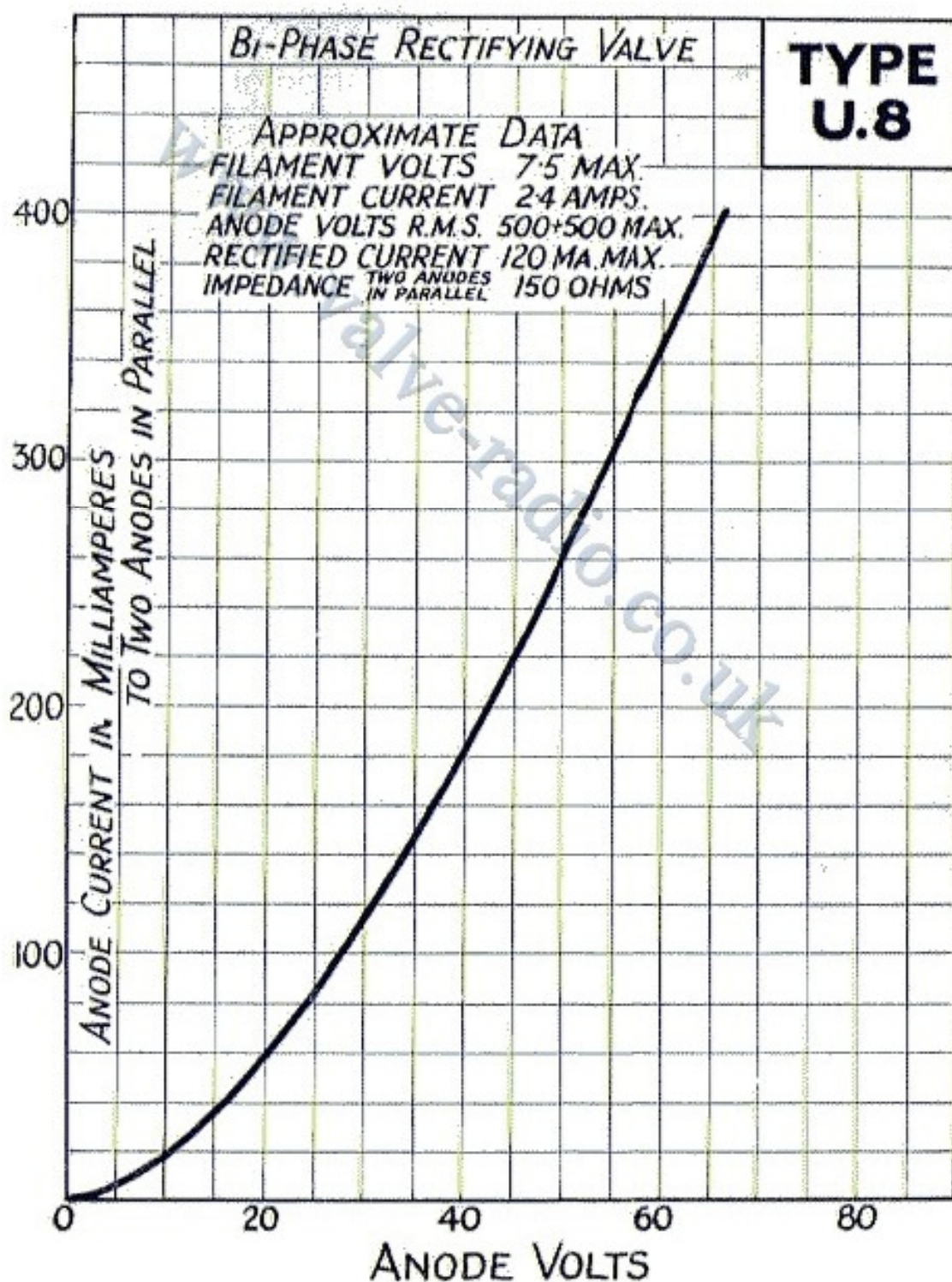
1. By tappings on the transformer secondary
2. By the use of resistances in series with the output.
3. By the use of a potentiometer. The sum of the potentiometer and load currents must not exceed the maximum output current of 120 milliamperes.



# MARCONI VALVES

TYPE U 8

RECTIFIER



*Characteristic Curve of Average U 8 Valve.*



# MARCONI VALVES

## TYPE U 9

DULL EMITTER FULL WAVE RECTIFYING VALVE



*Approximate Overall Dimensions,  
135 × 56mm.*

Filament volts	4.0 max.
Filament current	1.0 amp.
Anode volts (max.)	250 + 250 RMS.
Impedance (two anodes in parallel)	220 ohms.
Rectified current	75 milliamperes (max.)

**Price, 20/-**

The U 9 type valve is a dull emitter rectifying valve incorporating a dual electrode system in one bulb. Rectification of both half cycles of the A.C. wave is obtained, when the valve is used in High Tension Battery Eliminators fed from A.C. mains, with a consequent simplification of the necessary smoothing system.

The input voltage to the anodes should not exceed 250 volts RMS, and the rectified current as measured on a moving coil meter should not exceed 75 milliamperes. The output of the U 9 is suitable for the operation of multi-valve receivers, and when used in conjunction with Super Power Valves is sufficient for loud speakers of the larger types.

The filament voltage should not exceed 4.0 volts, and the output voltage should not be controlled by variation of the filament brilliancy. Attention to these details will ensure a long useful life.

Variation in output voltage may be obtained in the following manner:—

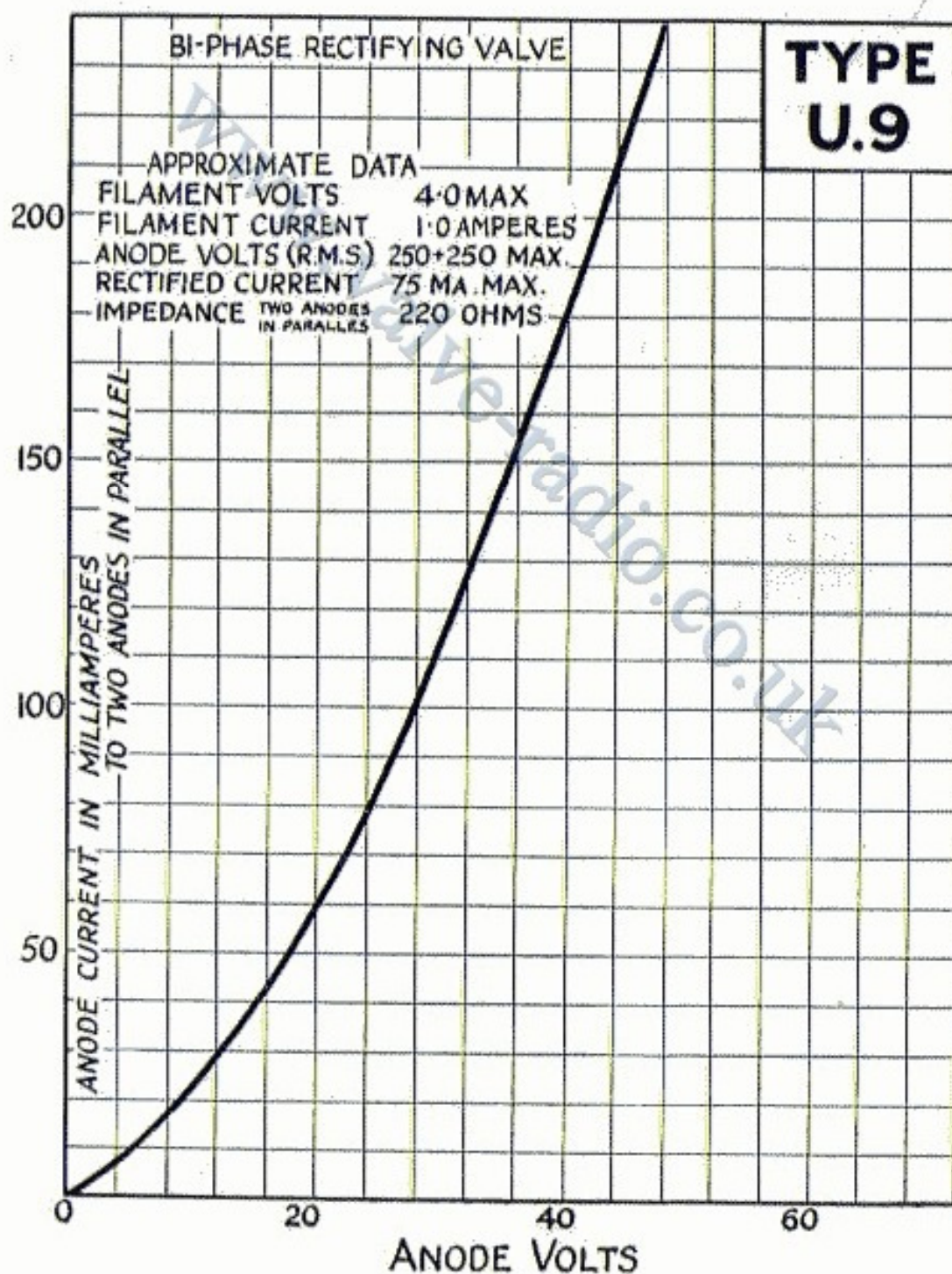
1. By tappings on the transformer secondary.
2. By the use of resistances in series with the output.
3. By the use of a potentiometer. The sum of the potentiometer and load currents must not exceed the maximum output current of 75 milliamperes.



# MARCONI VALVES

TYPE U 9

RECTIFIER



*Characteristic Curve of Average U 9 Valve.*



# MARCONI TRANSMITTING VALVES

## TYPE T50

A small power, double ended Transmitting Valve, tested dissipating 50 watts at the anode, suitable for voltages up to 1,500.

Filament Volts..... 7.0 Anode Volts .....1,500  
 Fil. Current...2.5 amps. Impedance...35,000 ohms  
 Voltage Magnification..... 30

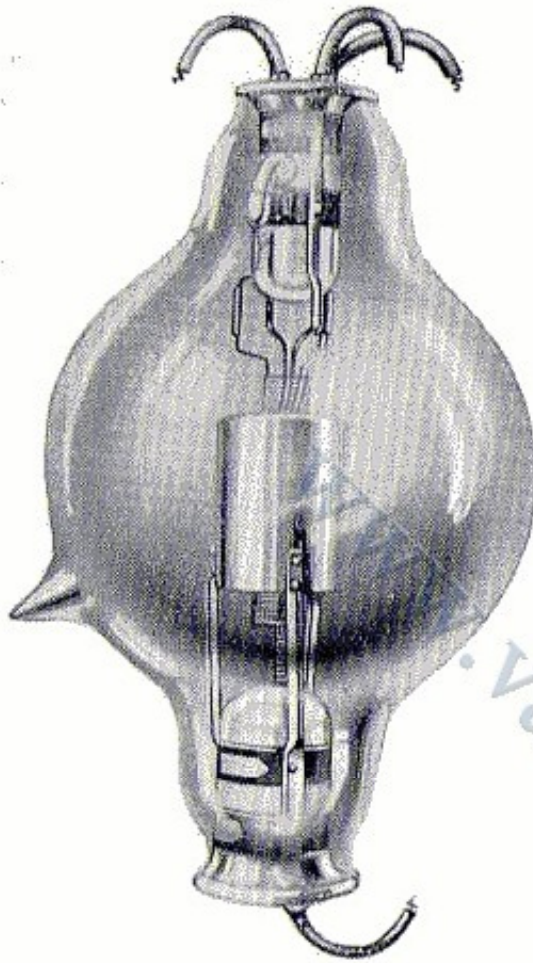
Price, £5 12 6

## TYPE T250

A Transmitting Valve, tested dissipating 250 watts at the anode, suitable for voltages up to 4,000

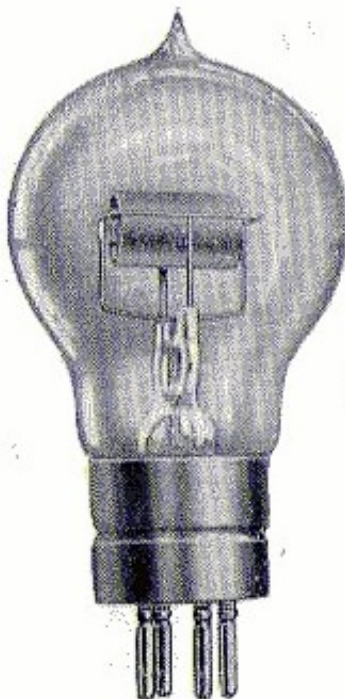
Filament Volts.....12.5 Anode Volts, 2,000-4,000  
 Fil. Current...5.5 amps. Impedance... 17,000 ohms  
 Voltage Magnification..... 20

Price, £7 7 0



T 50

*Approximate Overall Dimensions,  
 145 × 76 m/m.*



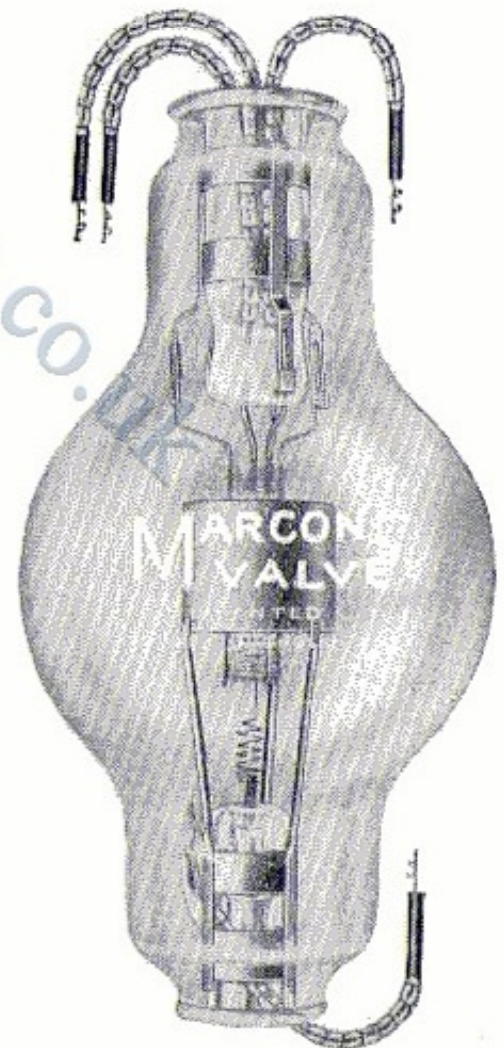
T 30

## TYPE T30

A small power Transmitting Valve tested dissipating 30 watts at the anode, suitable for voltages up to 1,000.

Filament Volts ..... 7.0  
 Fil. Current... 1.8 amps.  
 Anode Volts ..... 1,000  
 Impedance, 40,000 ohms  
 Volt. Magnification...35

Price, £2 10 0



T 250

*Approximate Overall Dimensions,  
 280 × 120 m/m.*



# MARCONI TRANSMITTING VALVES

## TYPE DET 1 sw

A double ended dull emitter Transmitting Valve, designed for short wave working on wavelengths down to 10 metres.

Under normal oscillating conditions at 15 metres the anode current should not exceed 80 m.a. at 800 volts. At 10 metres, these figures should not be more than 80 m.a. at 500 volts; and at 100 metres, 80 m.a. at 1,000 volts.

Filament Volts ..... 6.0  
 Fil. Current ..... 2.0 amps.  
 Amplification Factor ... 8.5  
 Impedance.....5,000 ohms.

Price, £7 5 0



**DET 1 sw**

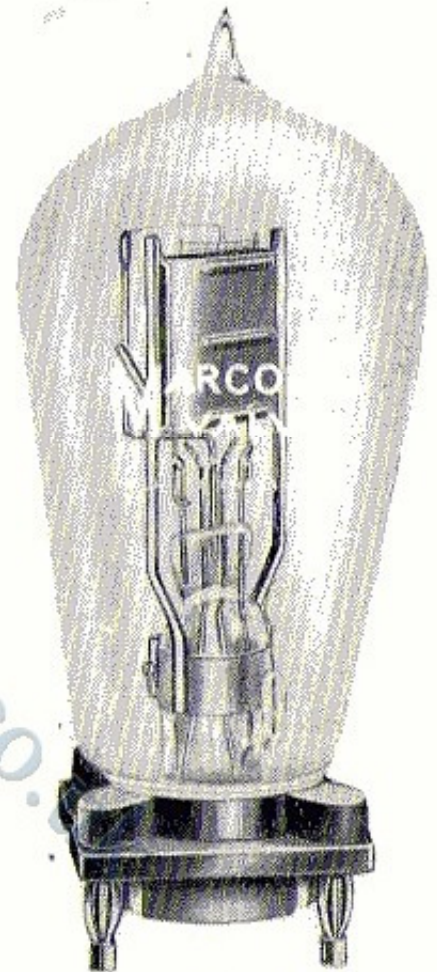
*Approximate Overall Dimensions, 240 x 76 m/m.*

## TYPE DET 1

A small power Transmitting Valve with a dull emitting filament. Tested dissipating 40 watts at the anode and suitable for voltages up to 1,000.

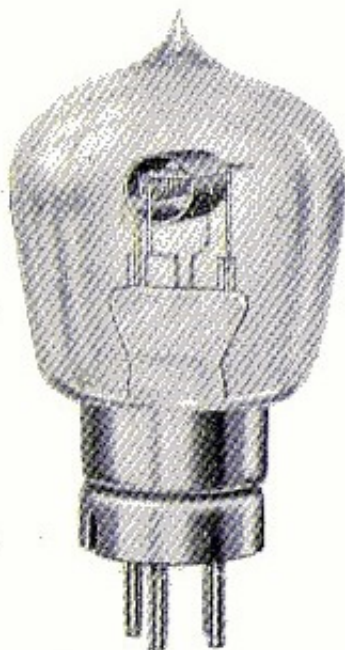
Filament Volts.....6.0  
 Filament Current, 1.0 amps.  
 Anode Volts ... 1,000 max.  
 Amplification Factor.....11  
 Impedance.....6,000 ohms.

Price, £5 5 0



**DET 1**

*Approximate Overall Dimensions, 180 x 78 m/m.*



**T 15**

*Approximate Overall Dimensions, 115 x 55 m/m.*

## TYPE T 15

A small power Transmitting Valve, tested dissipating 15 watts at the anode, suitable for voltages up to 600.

Filament Volts..... 5.5-6.0  
 Filament Current .....1.0 amps.  
 Anode Volts..... 600  
 Impedance..... 50,000 ohms.  
 Voltage Magnification..... 25

Price, £1 10 0