

FERRANTI

OUTPUT PENTODE

42

Type 42 is an indirectly heated pentode designed for use in the output stage of AC. radio receivers and audio amplifiers.

PHYSICAL DETAILS.

Base	...	UX-6 pin.
Max. Overall Length	...	117 mm. (4 $\frac{3}{4}$ in.).
Max. Seated Height	...	103 mm. (4 $\frac{1}{16}$ in.).
Max. Diameter (Bulb)	...	46 mm. (1 $\frac{1}{2}$ in.).
Mounting Position	...	Any.

BASE CONNECTIONS.

Pin 1—Heater.	Pin 4—Control Grid.
Pin 2—Anode.	Pin 5—Cathode, Suppressor Grid.
Pin 3—Screen Grid.	Pin 6—Heater.

HEATER.

Heater Voltage	...	6.3 volts.
Heater Current	...	0.7 amps.

RATINGS.

Max. Anode Voltage	...	375 volts.
Max. Screen Voltage	...	285 volts.
Max. Anode Dissipation	...	11 watts.
Max. Screen Dissipation	...	3.75 watts.
Max. Heater-Cathode Voltage	...	100 volts DC.

TYPICAL OPERATION.

Single Valve Class A₁ Amplifier.

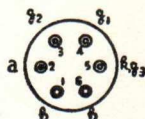
Heater Voltage	...	6.3	6.3	volts.
Anode Voltage	...	250	285	volts.
Screen Voltage	...	250	285	volts.
Control Grid Voltage	...	-16.5	-20	volts.
Anode Current (Zero Signal)	...	34	38	mA.
Anode Current (Max. Signal)	...	36	40	mA.
Screen Current (Zero Signal)	...	6.5	7	mA.
Screen Current (Max. Signal)	...	10.5	12	mA.
Anode Impedance (approx.)	...	80000	78000	ohms.
Mutual Conductance	...	2.5	2.55	mA/V.
Cathode Bias Resistor	...	410	440	ohms.
Anode Load	...	7000	7000	ohms.
Power Output	...	3.2	4.8	watts.
Total Harmonic Distortion	...	8	9	%

2 Valves Push Pull Class AB₁ Amplifier.

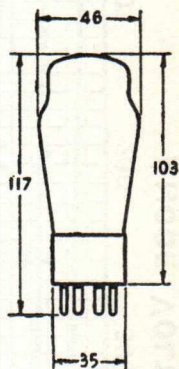
	Fixed Bias.	Auto Bias.	
Heater Voltage	...	6.3	6.3 volts.
Anode Voltage	...	315	315 volts.
Screen Voltage	...	285	285 volts.
Control Grid Voltage	...	-24	— volts.
Auto Bias Resistor	...	—	320 ohms.
Peak Input Voltage Grid to Grid	...	48	58 volts.
Anode Current (Zero Signal)	...	62	62 mA.
Anode Current (Max. Signal)	...	80	73 mA.
Screen Current (Zero Signal)	...	12	12 mA.
Screen Current (Max. Signal)	...	19.5	18.1 mA.
Optimum Load Resistance			
Anode to Anode	...	10000	10000 ohms.
Power Output	...	11	10.5 watts.
Total Harmonic Distortion	...	4	3.0 %

CAPACITANCES.

C _{in}	...	8.0 pF.
C _{out}	...	6.5 pF.
C _{a-g}	...	0.5 pF.



Base Connections
Underside View of Base



All dimensions shown are in millimetres (max.).





42

