

FERRANTI

LINE OUTPUT PENTODE

An indirectly heated output pentode. It is designed for use as a Line Time Base Output Valve in Television Receivers employing television tubes with 90° scanning angles; and is intended for use in series heater chains.

PHYSICAL DETAILS.

Base	...	...	...	Octal.
Top Cap	...	...	...	CTI.
Max. Overall Length	...	...	...	110 mm. (4 $\frac{1}{4}$ ")
Max. Seated Height	...	...	...	95 mm. (3 $\frac{3}{4}$ ")
Max. Diameter	...	...	...	33 mm. (1 $\frac{1}{4}$ ")
Mounting Position	...	...	...	Any.

BASE CONNECTIONS.

Pin 1—Internal Connection.	Pin 5—Control Grid.
Pin 2—Heater.	Pin 6—No Pin.
Pin 3—Internal Connection.	Pin 7—Heater.
Pin 4—Screen Grid.	Pin 8—Cathode and
Top Cap—Anode.	Suppressor Grid.

HEATER.

Heater Current	...	...	...	0.3 Amp.
Heater Voltage	...	...	...	25 volts.

RATINGS.

Max. D.C. Supply Voltage	...	...	...	550 volts.
Max. Anode Voltage	...	...	...	250 volts.
*Max. Peak Anode Voltage (Positive)	...	...	...	7 kV.
Max. Peak Anode Voltage (Negative)	...	...	...	1.5 kV.
Max. Anode Dissipation (p _a)	...	...	...	10 watts.
Max. Screen Voltage	...	...	...	250 volts.
†Max. Screen Dissipation (p _{g2})	...	...	...	5 watts.
Max. p _a + p _{g2}	...	...	...	13 watts.
Max. Cathode Current	...	...	...	200 mA.
Max. Peak Neg. Grid Voltage	...	...	...	-1.0 kV.
Max. V _{h-k} (Cathode Negative)	...	...	...	200 volts.
Max. V _{h-k} (Cathode Positive)	...	...	...	250 volts.
Max. R _{g1-k}	...	...	...	500 kΩ

CHARACTERISTICS.

Anode Voltage	...	...	...	170 volts.
Screen Voltage	...	...	...	170 volts.
Control Grid Voltage	...	...	...	-21 volts.
Anode Current	...	...	...	100 mA.
Screen Current	...	...	...	8 mA.
Mutual Conductance	...	...	...	11 mA/V.
Anode Impedance	...	...	...	5.5 kΩ
Inner μ (μ _{g1-g2})	...	...	...	5.5

TYPICAL OPERATION.

As Line Output Pentode.

Curves of anode current against anode voltage for a range of control grid voltages and screen grid resistors are shown on page 4 of the data, these apply for an average new valve.

To allow for valve spread and deterioration during life the line output circuit should be designed around a current 25% lower than the value shown on the curves.

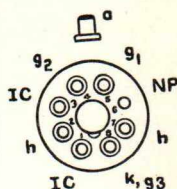
CAPACITANCES.

C _{in}	...	...	...	18 pF.
C _{out}	...	...	...	8 pF.
C _{a-g1}	...	...	...	<1.1 pF.

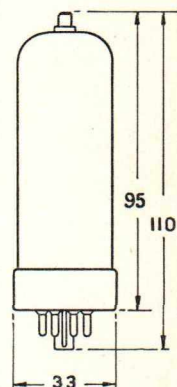
*Max. pulse duration of 18% of one cycle, with a maximum of 18 μsecs.

†Max. average p_{g2} is 7 watts for the period between the start of screen current and the instant when the anode current attains one half of its normal operating value.

25E5



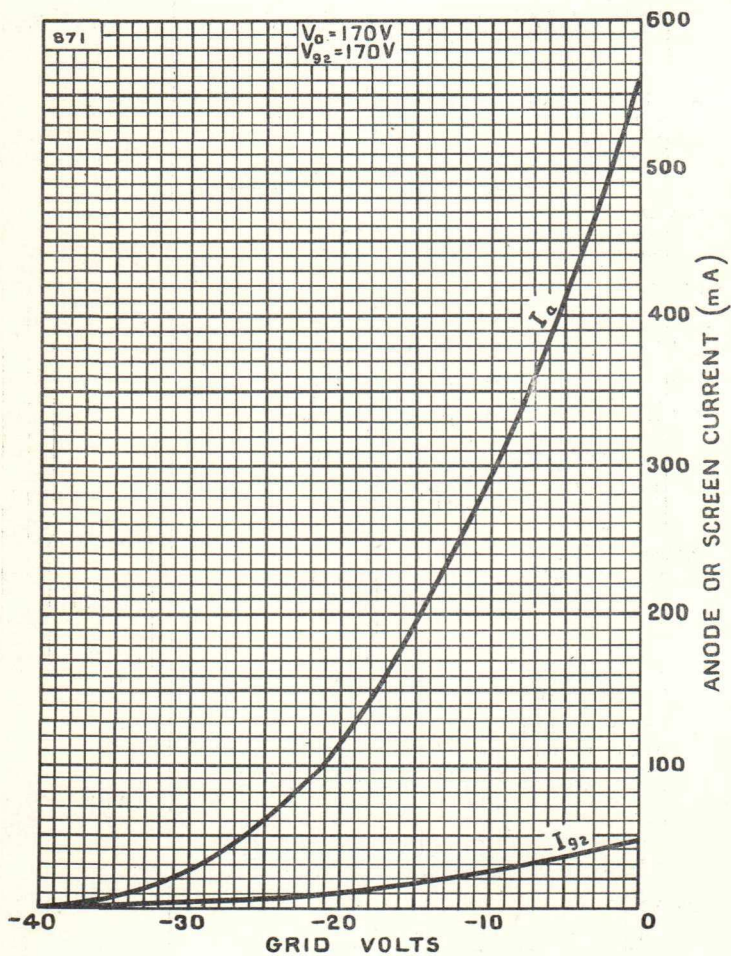
**Base
Connections
Underside View
of Base**



All dimensions
shown are in
millimetres
(max.)



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