

# HOLLOW CATHODE LAMP SUPPLY

## TYPE C610

The Cathodeon hollow cathode lamp power supply C610 is current stabilized and specifically designed to operate all Cathodeon hollow cathode lamps.

### Special Features

The supply is fully automatic in operation and provides warning of malfunction of the lamp. The supply has low noise and drift characteristics and has been designed to allow accurate setting of the lamp current. For this reason, the current adjustment is in two ranges to allow high precision setting at low current levels where it is most important for consistent performance of the hollow cathode lamp. Provision is made for the external modulation of lamp current.

## SPECIFICATIONS

### Output Current

Adjustable in two ranges.

2—10mA calibrated in 0.2mA divs.

10—50mA calibrated in 1mA divs.

The supply automatically selects the low current range on switch on. The high range is then selected by a push switch on the front panel and a warning light denotes use of the high current range. The supply automatically reverts to the low range if the current is reduced below 10mA whilst the selector is in the high range position.

### Current Stability

Better than 0.05% after initial 15mins warm up.

### Output Voltage

Nominal 530V strike voltage is available.

### Current Modulation

BNC input socket provided for an external 5V TTL drive pulse to reduce the current to a nominal 10% of the set current, with a minimum of 2mA to preserve lamp stability.

Maximum modulation frequency 500Hz. Higher frequencies are possible if waveform degradation can be tolerated.

## Indicators

Mains on — Green

Lamp on (i.e. 2mA) — Amber

High Range selected — Amber

External modulation on — Amber

Fault—showing short circuit condition in either the hollow cathode lamp or connecting leads — Red

## Connections

The output to the hollow cathode lamp is via a Neutrix connector ('AXR'/'XLR' series) fitted to the rear panel of the supply.

## Mains Input

110, 130, 220, 240V rms 50/60Hz.

Selected on rear panel.

Fuse 1A slow blow for 240V.

(1A for 110V.)

## Dimensions

260mm x 250mm x 140mm.

Weight 4.13kg.

## OPERATION

The hollow cathode lamp should be connected and the power switched on. If the fault lamp is illuminated there is a short circuit in the hollow cathode lamp or its connections and these should be checked. Select the required lamp current. The supply will automatically start in the low (2—10mA) range. If currents in excess of 10mA are required, turn the control beyond the 2—10mA scale mark and press the high range button on the front panel. This will select the high range and illuminate the high range warning lamp. If the current is reduced to below 10mA, the supply will automatically reset the low range. If modulation of the lamp current is required, a 5V TTL drive pulse may be applied to the BNC socket on the rear panel. A switch is fitted to the front panel to turn modulation on or off as required. A positive 5V signal reduces lamp current to a nominal 10% of set operating current. The scale markings indicate the peak current when the lamp is being modulated.

## APPLICATIONS

The supply has low noise and drift characteristics and has been designed to allow accurate setting of the lamp current.

