

# UNG7

# Osram

## PHOTO CELLS

### UNG7 PHOTO CELL

Sodium Gasfilled

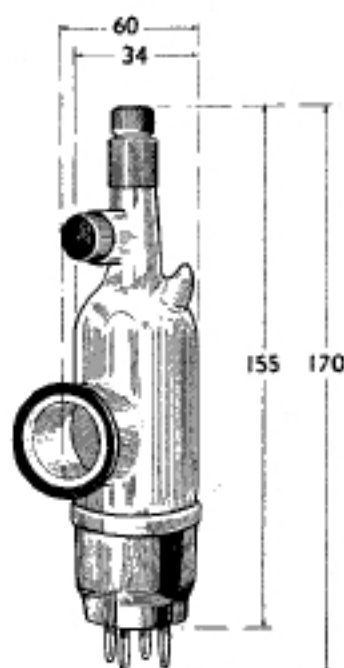
For detection and measurement of ultra violet rays in the spectral range 3,000—4,400 A.U.

#### DESCRIPTION

This photo cell has a sodium cathode of the mass layer type and is suitable for use in the range 3,000—4,400 A.U. The bulb is fitted with a standard valve base to the anode and grid pins of which the light sensitive surface is connected. The anode of the photocell is taken to a screw cap at the top of the bulb. A side terminal makes connection to a guard ring deposited on the internal surface of the neck of the bulb, and serves to shunt internal surface leakage between the electrodes. An external guard ring can be made by wrapping a few turns of bare copper wire round the neck of the bulb and connecting the end of the side terminal.

Radiation reaches the cathode through a quartz window which is attached to the glass bulb by a special gastight joint. A small circular glass disc will be found loose inside the bulb. This is inserted during manufacture to keep the alkali from depositing on the quartz window. It should be shaken down into the well of the bulb when the cell is in use.

#### DIMENSIONS

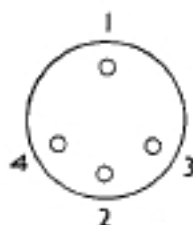


#### BASE

##### 4-PIN

- Pin 1: Cathode
- 2: Cathode
- 3: Not connected
- 4: Not connected

Top screw cap: Anode  
Side screw cap: Internal guard ring



View looking on underside of base.

*All dimensions are in mm. and are the maximum except where otherwise stated.*

## PHOTO CELL TYPE UNG7

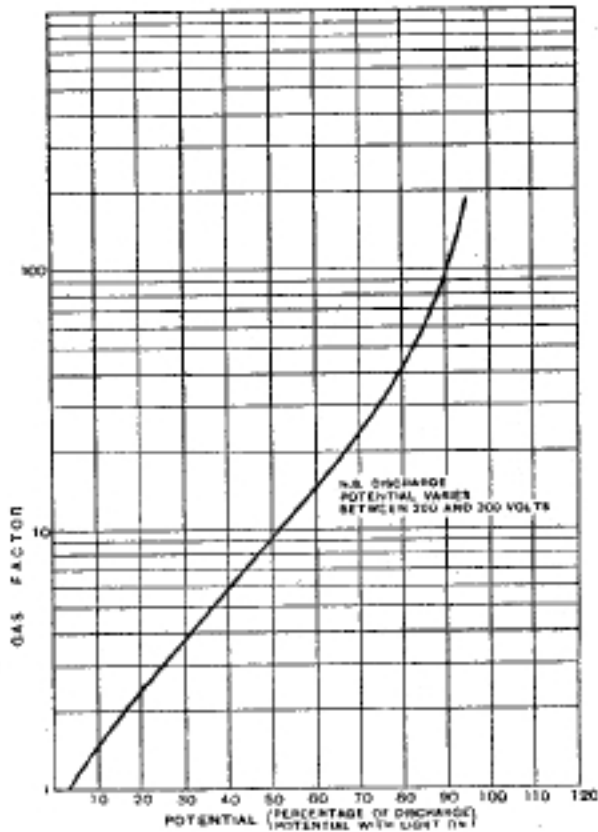


Fig. 1

### AVERAGE SPECTRAL SENSITIVITY CURVE

As in the case of all gasfilled cells, a resistance of at least 100,000 ohms should be included in the circuit in which this cell is used.

If voltages in the upper portion of the curve of *Fig. 1* are used to secure higher sensitivity, care must be taken to see that a glow discharge is not allowed to pass in the cell.

If allowed to continue for more than a few seconds the glow discharge will ruin the cathode.

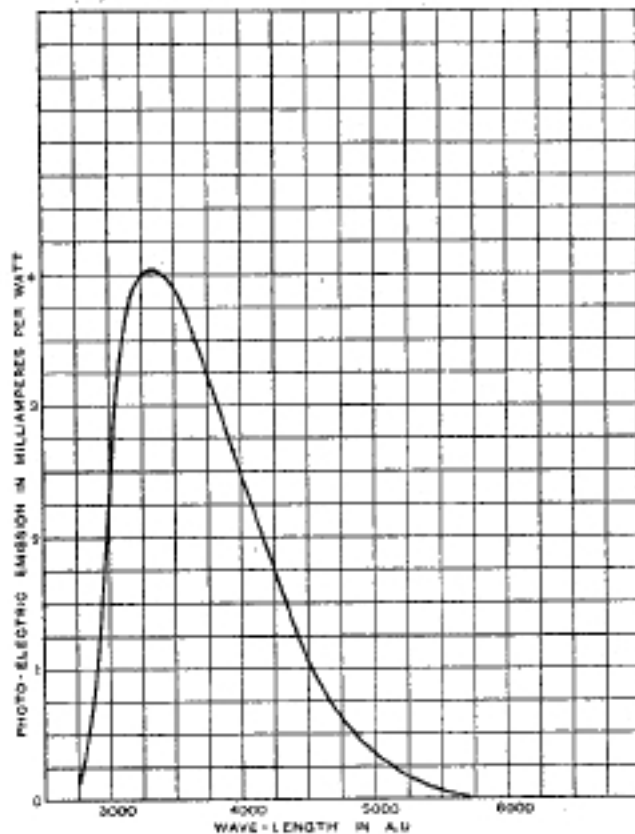


Fig. 2

### CHARACTERISTIC CURVE OF UNG7 TYPE PHOTO CELL