SIEMENS ELECTRIC LAMPS AND SUPPLIES

# MERCURY DISCHARGE TUBES

SIERAY

## M.1 and M.2

Siemens Sieray M.1 and M.2 Mercury Discharge Tubes have been developed to meet the demand for a small source of both ultra-violet and visible radiation and are especially useful where a mercury discharge source of small physical dimensions is required.

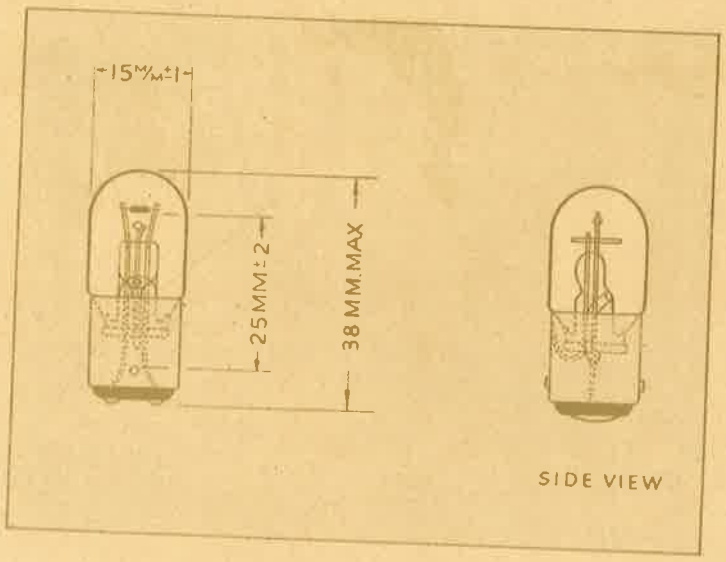
The original M.1 model, for operation from a 24v. D.C. supply, was designed by the Siemens Research Laboratories during the early part of the last war as a means of exciting fluorescent details on instrument panels at low illumination levels.

The M.1 Tube has been found suitable for many additional applications and as a result our Research Laboratories have recently developed the M.2 Tube, which can be operated from A.C. supply voltages over the range 200/250.

Some of the many applications for which the Sieray M.1 or M.2 Tubes have found favour include time markers in recording camera equipment, as a source of the well-known mercury green line in laboratory instruments, for exciting a wide range of fluorescent materials and for various biological and entomological purposes, as for example the light source in an insect trap.

The main details of these tubes are given below.

### SIERAY MERCURY DISCHARGE TUBE M.1




SCALE: FULL SIZE. All dimensions in mm.

### CHARACTERISTICS OF M.1 TUBE

| | |
|---|---|
| Arc Wattage (at 0·75 amps.) | 4·5 |
| Minimum operating voltage | 22 |
| Filament heating current (amps.) | 0·8 |
| Maximum filament heating current (amps.) | 0·95 |
| Maximum arc current (amps.) | 0·75 |
| Objective life (hours) | 200 |
| *Cap | SBC (B.15d/17) |
| Operating position | Any |

* CAP CONNECTIONS : Sole plates to filament heater and shell of cap to anode.

### OPERATING CIRCUIT FOR M.1 TUBE

The cathode heater filament is used for initiating the arc and should be switched off once the arc has formed.