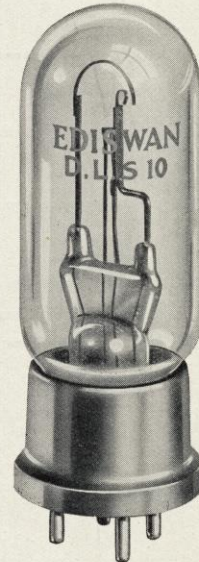
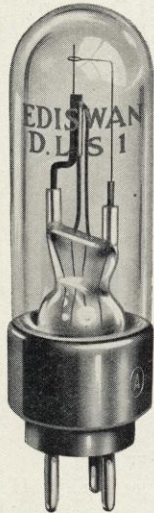


# EDISWAN

## Types DLS/1 and DLS/10

### Vacuum Thermal Delay Switches



RATINGS.	DLS/1.	DLS/10.
Filament Volts ... ..	3-6	3-6
Filament Amps. (approx.) ... ..	0.6	1.2
Maximum permissible current through contacts ... ..	200 m/a. { at 2,000 v.	6 amps. at 250 v.
Time delay ... ..	Up to 1 min.	Up to 5 mins.
DIMENSIONS.		
Maximum overall length (mm.)	120	140
„ „ diameter (mm.)	35	48
PRICE ... ..	<b>7/6</b>	<b>17/6</b>

Rectifier Valves, condensers, etc., in high-tension circuits, are often damaged by applying the H.T. voltage before the valve cathodes have time to reach their operating temperatures. This is especially so where indirectly heated valves are employed in a radio receiver.

With modern high-efficiency, Mercury-Vapour and other gas-filled rectifiers, it is necessary to employ a delay-action switch in the H.T. circuit. The time lapse varies with the type of valve employed and in the case of a hot-cathode, mercury-vapour rectifier, where a delayed action switch is absolutely essential for maximum current operation, the time may be several minutes.

The Ediswan DLS/1 and DLS/10 are thermally operated delay switches enclosed in evacuated bulbs. Each switch consists of a bi-metal strip, heated by radiation from a spiral filament which heats up with the filaments of the rectifiers. The strip bends with temperature rise, makes contact, and closes the H.T. circuit, thus applying the H.T. voltage at a pre-determined time after the filament circuit is closed. Control of time delay may be arranged by inserting a rheostat in the heater circuit of the delay switch.



**THE EDISON SWAN ELECTRIC CO. LTD.**  
*Incorporating the Wiring Supplies, Lighting Engineering and  
 Radio Business of the British Thomson-Houston Co. Ltd., and  
 Metro-Vick Supplies.*

Radio Division Showrooms:  
**155 Charing Cross Road, London, W.C.2**  
*Showrooms in all the Principal Towns*

## EDISWAN

R763-9

6/33

# EDISWAN

## Types DLS/1 and DLS/10

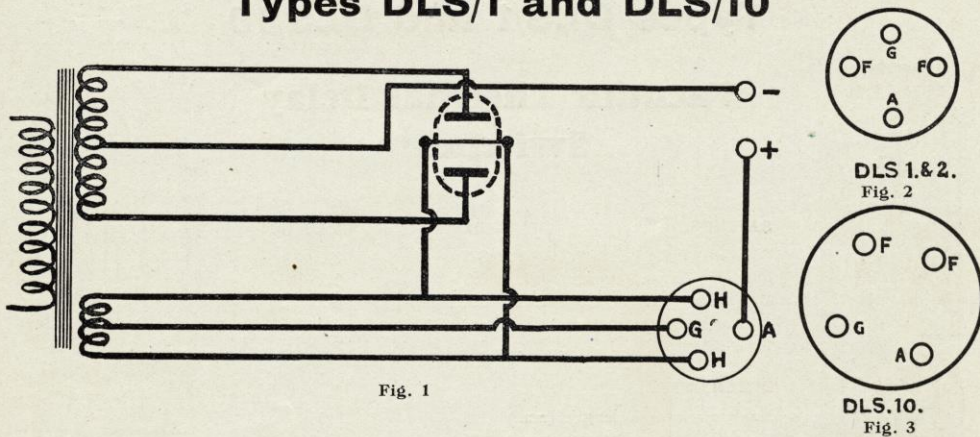


Fig. 1

DLS 1.&2.  
Fig. 2

DLS.10.  
Fig. 3

At the normal rating the DLS/1 will satisfactorily close circuits of 200 m/a. at 2,000 volts, whilst the DLS/10 is intended for circuits up to 6 amps. at 250 v.

Ediswan Vacuum Thermal Delay Switches have the following distinct advantages:—

1. Owing to its enclosure in an evacuated bulb, operating time of the switch is practically independent of sudden external temperature variation.
2. In the absence of air, no burning of contacts takes place.
3. Operating time is controllable by varying the filament current ; a filament pressure of 3 to 6 volts may be employed.

Under normal conditions the filament is operated from a 4-volt supply and is usually connected across a 4-volt winding of the mains transformer or across the filament terminals of the rectifier itself.

With the DLS/1 the current at 4 volts is approximately 0.5 amp., the average delay time then being 30 seconds.

Due to the high degree of vacuum no arcing and consequent oxidation of contact can take place even when a high voltage circuit is made ; the contacts are absolutely positive and contact resistance remains low.

Fig. 1 shows the valve holder connections suitable for a normal H.T. rectifier circuit. The switch contacts in the case of the DLS/1 are connected between pins G. and A. of the 4-pin standard base. Type DLS/10 is fitted with an American base in which the contacts are connected to the large diameter pins.

The switch may conveniently be connected between the heater supply of the rectifier unit and the line leading to the reservoir condenser and associated circuits (Fig. 1).



