



STROBOSCOPIC LIGHT SOURCE

A gas filled cold cathode arc discharge tube designed for use in stroboscopic applications at frequencies up to 150 flashes per second. It emits a white light.

PHYSICAL DETAILS.

Base	...	...	International Octal.
Max. Seated Height	...	...	63 mm. (2.48")
Max. Overall Length	...	...	77 mm. (2.86")
Max. Diameter	...	...	35 mm. (1.38")
Mounting Position	...	...	Any (Vertical-base down preferred)

PIN CONNECTIONS.

Pin 1—Anode	Pin 5—Blank
Pin 2—Anode	Pin 6—Blank
Pin 3—Blank	Pin 7—Cathode
Pin 4—Trigger	Pin 8—Cathode

RATINGS.

Max. Anode Voltage	...	...	500 volts
Max. Flash repetition rate	...	...	150 per sec.
Max. Discharge Capacitor	...	...	8 μ F

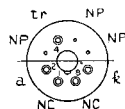
TYPICAL OPERATION.

D.C. Supply Voltage	...	...	450 volts
*Trigger Voltage	...	...	2 to 4 kV
Discharge Capacitor	...	...	0.5 μ F
Charging Resistance	...	...	8000 ohms
Flash Repetition Rate	...	...	150 per sec.

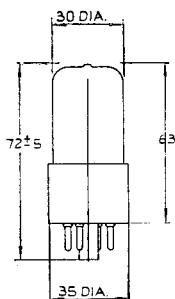
See overleaf for a typical stroboscope circuit with suitable component values.

*A suitable trigger pulse transformer is Ferranti Type PT56.

ED25



Underside View of Base



Dimensions in Millimetres

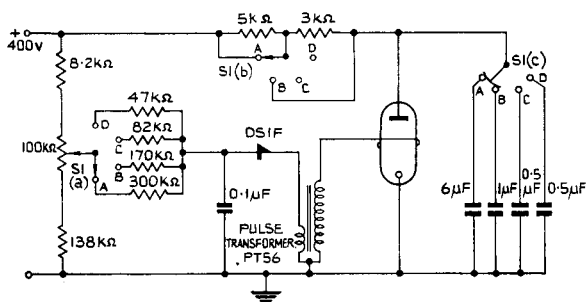


TYPICAL OPERATION (Continued).

The circuit of a Stroboscope offering repetition rates up to 150 flashes per second in 4 ranges is shown below.

The approximate frequency of the four ranges is as follows.

Switch in position	A ...	100–150 c/s (6000–9000 r.p.m.)
	B ...	30–100 c/s (1800–6000 r.p.m.)
	C ...	15–30 c/s (900–1800 r.p.m.)
	D ...	1–15 c/s (60–900 r.p.m.)



The resistors R1 or R2 should be of the vitreous type with a dissipation rating of 14 watts.

The above range coverage is only applicable with an input voltage of 400 V D.C. and with resistors of close tolerance (5%).