

FERRANTI

VOLTAGE STABILISERS

Types KD21 (VR75/30), KD24 (VR105/30) and KD25 (VR150/30) are cold cathode glow discharge voltage stabiliser valves.

PHYSICAL DETAILS.

Base	...	...	International Octal.
Bulb	...	...	Clear.
Max. Overall Length	...	...	105 mm. (4 $\frac{1}{4}$ in.).
Max. Seated Height	...	...	91 mm. (3 $\frac{5}{8}$ in.).
Max. Diameter (Bulb)	...	...	40 mm. (1 $\frac{5}{8}$ in.).
Mounting Position	...	...	Any.

BASE CONNECTIONS.

Pin 1—No Connection.	Pin 5—Anode.
Pin 2—Cathode.	Pin 6—No Pin.
Pin 3—Jumper*	Pin 7—Jumper*
Pin 4—No Connection.	Pin 8—No Connection.

*With suitable circuit connections the 'jumper' link in the base operates as a switch to render the equipment inoperative when the stabiliser valve is removed from its holder. A suggested arrangement is shown overleaf.

RATINGS AND CHARACTERISTICS.

KD21

†Min. Anode Supply Voltage	...	105 volts DC.
Nom. Striking Voltage	...	100 volts DC.
Nom. Operating Voltage	...	75 volts DC.
Max. Operating Current	...	40 mA.
Min. Operating Current	...	5 mA.
‡Max. Peak Current	...	100 mA.
Regulation (5 to 40 mA.)	...	6 volts.

KD24

†Min. Anode Supply Voltage	...	135 volts DC.
Nom. Striking Voltage	...	115 volts DC.
Nom. Operating Voltage	...	105 volts DC.
Max. Operating Current	...	40 mA.
Min. Operating Current	...	5 mA.
‡Max. Peak Current	...	100 mA.
Regulation (5 to 40 mA.)	...	4 volts.

KD25

†Min. Anode Supply Voltage	...	180 volts DC.
Nom. Striking Voltage	...	160 volts DC.
Nom. Operating Voltage	...	150 volts DC.
Max. Operating Current	...	40 mA.
Min. Operating Current	...	5 mA.
‡Max. Peak Current	...	100 mA.
Regulation (5 to 40 mA.)	...	5.5 volts.

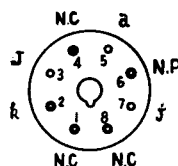
†See note overleaf.

‡See note overleaf.

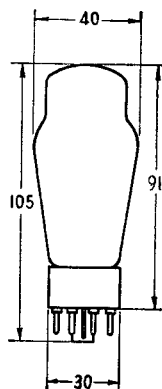
KD21
(VR 75/30)

KD24
(VR 105/30)

KD25
(VR 150/30)



Base
Connections
Underside View
of Base



All dimensions
shown are in
millimetres.
(max.).





KD21
(VR 75/30)

KD24
(VR 105/30)

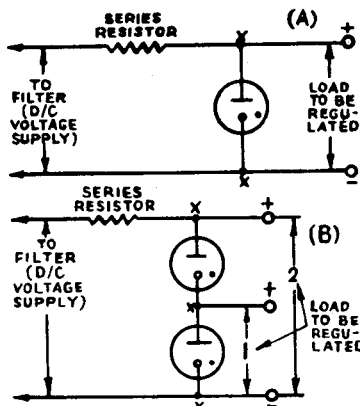
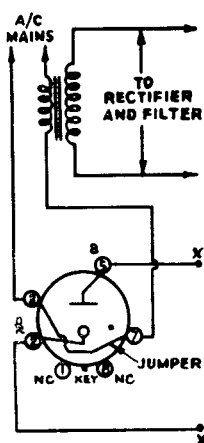
KD25
(VR 150/30)

NOTES.

†To ensure 'striking' throughout life.

‡Sufficient resistance must always be included in series with these valves to limit the current through the valve to 40 milliamperes under steady operating conditions. However during the warming up period of approximately 10 seconds, before the valves in the associated equipment draw anode current, the maximum current can be permitted to rise to 100 mA providing that each such starting period is followed by at least several minutes of operation under normal conditions. Unless this precaution is observed the performance of the stabiliser will be impaired.

TYPICAL CIRCUIT CONNECTIONS.



VALVE TYPE	REGULATED SUPPLY VOLTAGE TO LOAD (APPROX. VOLTS)		
	CIRCUIT A	CIRCUIT B	
		1	2
VR 75/30	75	75	150
VR 105/30	105	105	210
VR 150/30	150	150	300