

QUICK REFERENCE DATA (nominal values)

Maintaining voltage	150	V
Cathode current range	5 to 30	mA
Regulation voltage	3	V
Ignition delay time	10	s

This data should be read in conjunction with GENERAL OPERATIONAL RECOMMENDATIONS—VOLTAGE STABILISER AND REFERENCE LEVEL TUBES which precede this section of the handbook.

CHARACTERISTICS AND RANGE VALUES FOR EQUIPMENT DESIGN measured at an ambient temperature of between 20 and 30°C unless otherwise stated.

The values given state the range over which the tube will operate both initially and during life. No allowance has been made for supply voltage and component variations.

Initial values

Minimum voltage necessary for ignition (note 1)	185	V
Ignition delay time	See page C1	
Maintaining voltage (all tubes)		
Maximum (at $I_k = 30\text{mA}$)	156	V
Minimum (at $I_k = 5.0\text{mA}$)	143	V
Increase in maintaining voltage as cathode current is increased from 5 to 30mA (regulation voltage)		
Maximum	5.0	V
Average	3.0	V

Life performance (note 2)

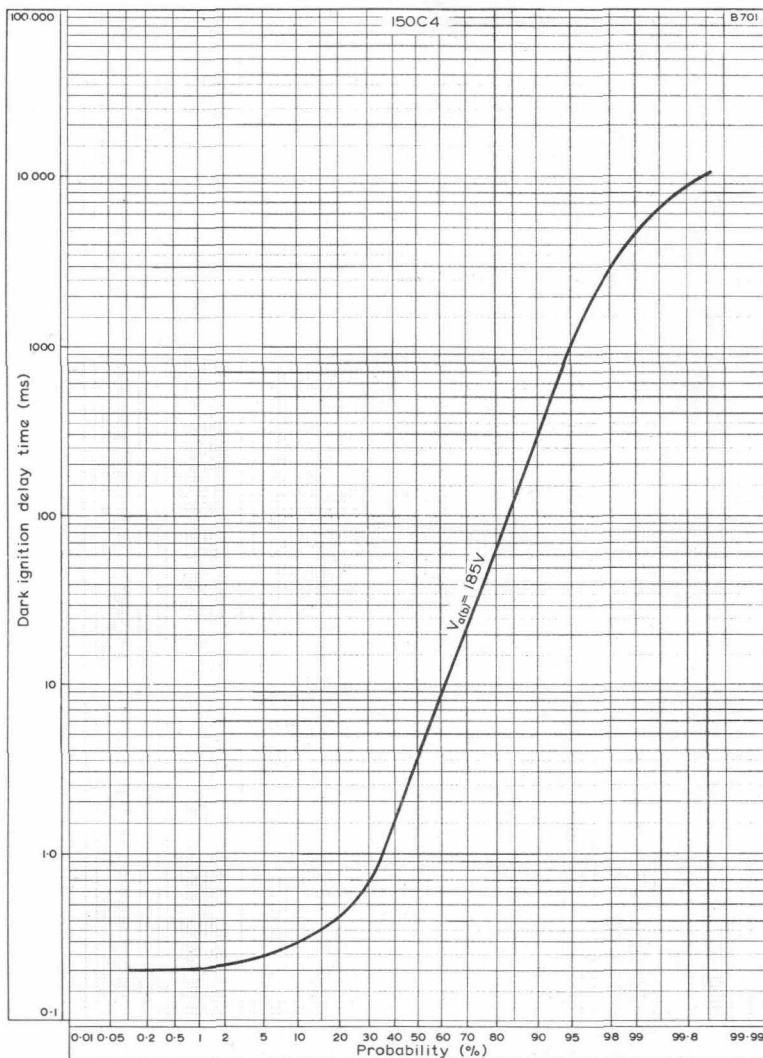
Minimum voltage necessary for ignition (note 1)	185	V
Maintaining voltage		
Maximum (at $I_k = 30\text{mA}$)	156	V
Minimum (at $I_k = 5.0\text{mA}$)	139	V
Percentage variation of maintaining voltage at 30mA during 1,000 hrs life (room temperature)		
Maximum	{ +1.5	%
	{ -5	%
Average	±1	%
Increase in maintaining voltage as cathode current is increased from 5 to 30mA		
Maximum	8.0	V
Average	3.0	V

ABSOLUTE MAXIMUM RATINGS

Cathode current		
Maximum for continuous operation	30	mA
Maximum surge (note 3)	75	mA
Minimum	5.0	mA
Maximum negative anode voltage	125	V
Minimum bulb temperature ($I_k = 0\text{mA}$)	-55	°C
Maximum bulb temperature		
For operation	+150	°C
For storage	+100	°C

OPERATING NOTES

1. This value holds good over life in light or darkness. See graph on page C1.
2. These figures apply only when the tube is operated continuously at 30mA.
3. To be restricted for long life to approximately 30 seconds in each 8 hours' use.



CUMULATIVE DISTRIBUTION OF DARK IGNITION DELAY TIME

This curve shows the probability that a tube will ignite in less than the time shown. This will be to some extent dependent on the supply voltage. In general an increase in the supply voltage will reduce the ignition delay time.

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STABILISING TUBE

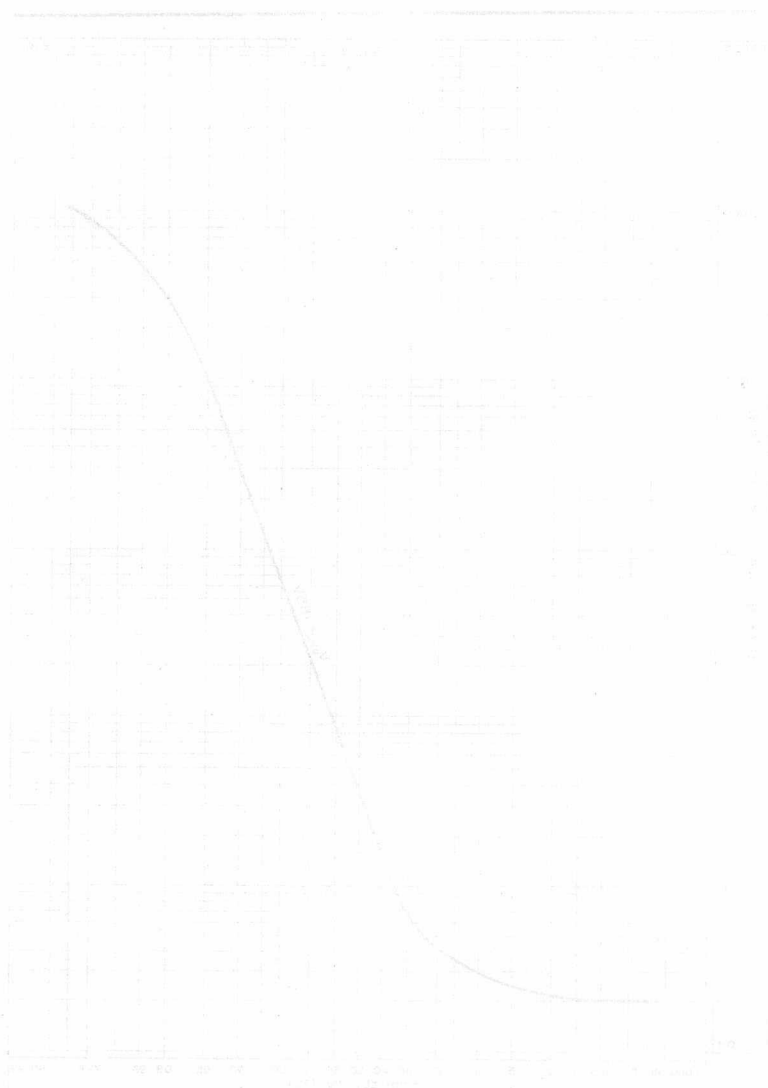


FIGURE 1. RELATIONSHIP OF DARK IGNITION DELAY TIME TO THE DELAY TIME. The curve shows that the delay time is not a constant value but varies with the supply voltage. It will be 10 times as long as the delay time when the supply voltage is reduced to 0.65 of the rated voltage.

