CV494

MINISTRY OF SUPPLY - A.E.R.E. VALVE ELECTRONIC

Specification MOS/CV.494.
Issue 4 Dated 20.4.53.
To be read in conjunction with K1001 ignoring clauses 10, 11 and 12.

SECURITY

Specification	Tube
RESTRICTED	UNCLASSIFIED

——→ indicates a change

TYPE - Tube, counter, G.M., thin wall immersion, beta-gamma.

PROTOTYPE - 20th Century Electronics B12

EFFECTIVE ANODE LENGTH - 120 m.m.

WALL THICKNESS - (Glass) 40 mgm/cm^2

MARKING

As in K1001/4. Additional markings:- Serial number, and operating voltage in the form V_W= V

PACKING

As in K1005

RATING		Note	PASE 10	
			Pin	Electrode
Operating Volts, V_W volts (Average at 20°C.)	1100	A,B		
Plateau length volts. (Average)	220		3 8	Anode Cathode
Plateau Slope %/volt. (Average)	0.06		DIMENSIONS	
Shielded background counts/min. (Average)	26		See page 3	
Useful life, counts. (Average)	2.5×10^8		Notes	
Temperature coefficient volts/C° (Average)	1		A. The working voltage is to be selected by the manufacturer within the limits stated, and shall be a multiple of 5.	
Temperature coefficient volts/C° (Max.)	1.5		B. All measurements made with a load resistance of R=4.7 x 10^6 ohms.	
Operating range of temperature °C.	-20to+50			
Filling Efficiency, source. (Approx.)	100%			

TESTS

To be performed in addition to those applicable in K1001.

	Test Conditions	Test	Limits Min	Limits Max	No. Tested
a	As in K1001/5E.3.1	Plateau length, L min. volts	200	-	100% or S
	Input sensitivity 0.25 volts	Plateau slope, S%/volt	-	0.1	" "
b	As at (a) above	Operating voltage V_W	1025	1175	100% or S
c	Input sensitivity 0.25 V, applied voltage V_W, other conditions as stated in K1001/5E.3.1 and K1001/5E.7.	Shielded background count rate/minute. Limits are irrespective of statistical corrections.	19	32	100% or S

NOTE - All tests shall be made using a counter load resistance of 4.7×10^6 ohms. ± 2%.

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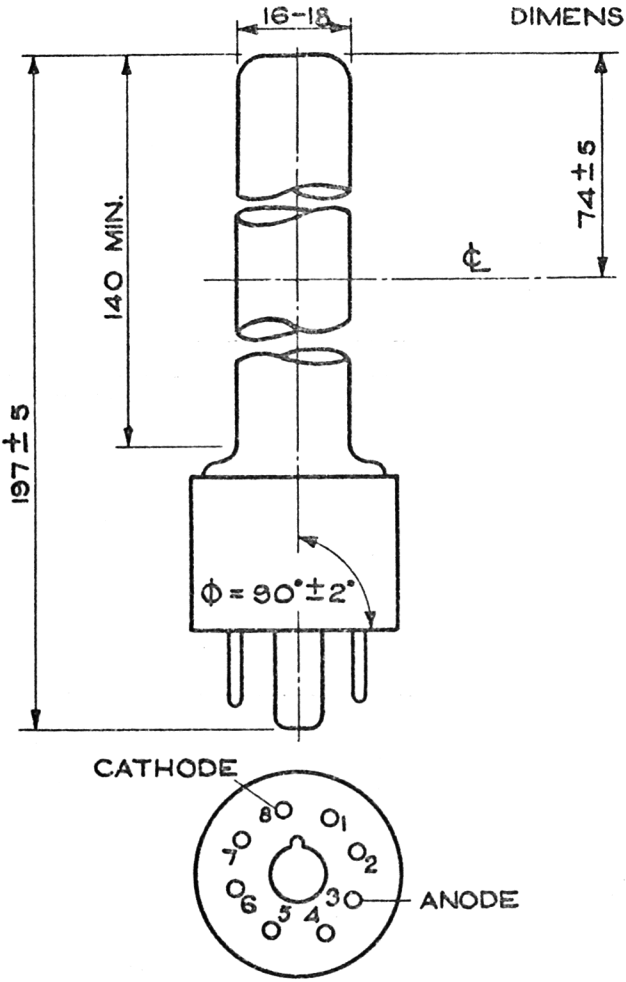
DIMENSIONS IN M.M.



1. GLASS BULB DIAMETER SHALL AT ALL POINTS BE LESS THAN THAT OF THE I.O. BASE.
2. GLASS BULB DIAMETER SHALL NOT EXCEED 34·54mms.(1·360") ABOVE A POINT 32·08mms.(1·263") UPWARDS FROM THE BOTTOM OF THE BASE EXCLUDING PINS AND SPIGOT.
3. GLASS DIAMETER SHALL NOT EXCEED 20·62mms.(0·812") ABOVE A POINT 52·37mms.(2·062") UPWARDS FROM THE EXTREME END OF THE SPIGOT.
4. Φ = ANGLE BETWEEN ℄ OF GLASS BULB AND BOTTOM OF BASE.
5. DIMENSION 74±5 IS A TYPE APPROVAL TEST ONLY.