ADMIRALTY SIGNAL ESTABLISHMENT

VALVE ELECTRONIC **CV202**

Specification AD/CV202/Issue 4. Dated 21.2.47. To be read in conjunction with K1001, ignoring clauses:- 5.2, 5.8 and 5.9.	SECURITY Specn. [redacted] Unclass Valve Unclassified

TYPE OF VALVE:- Bolometer Indicator.

FILAMENT:- Directly Heated Tungsten.

ENVELOPE:- Glass, unmetallised.

PROTOTYPE:- A.S.E. Type YF.

MARKING

Valve : None

Box : CV202

RATING		Note	DIMENSIONS AND CONNECTIONS
			See page 2.
Cold resistance at 2.0 mA. (ohms)	10.5 ± 1		PACKING
Max. Power Filament can dissipate safely (mW)	200		See K1001/7.
Approx. power dissipated in filament when just glowing (mW)	20		

TESTS

To be performed in addition to those applicable in K1001.

	Test Conditions If (mA)	Test	Limits Min.	 Max.	No. Tested	Note
a	2.0 Ambient temperature = 20°C.	Resistance (ohms)	9.5	11.5	100%	1
b	24	Resistance (ohms)	35	-	100%	3

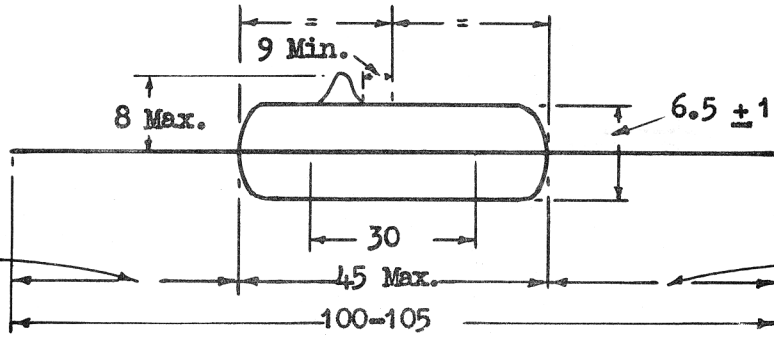
NOTES

1. If the ambient temperature differs from 20°C. a correction of 0.1 ohm should be applied to the measurements for every two degrees difference of temperature.

2. While on the pump the tube should be baked at 360°C. and, before sealing-off, the filament should be outgassed by passing 65 mA through it for 3 mins. The vacuum in the sealed-off tube must be of the order 10^{-6} mm. mercury so that the tube will operate in R.F. fields without any ionisation glow.

3. This test should be done after the tube has been sealed-off for at least a week. It is designed to reject leaking tubes, and it ensures that in those which are satisfactory the filament power required to raise the filament resistance to 35 ohms does not exceed 20 milliwatts. The test may be done conveniently by noting the filament voltage when the filament current is 24 mA; the voltage should not be less than 0.84 volt.

OUTLINE DIMENSIONS



Length of leads to be within 1.0 of one another.

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Leads to be of 1 mm. dia. copper-clad nickel-iron.

All dimensions in millimetres.

CONSTRUCTIONAL NOTES

Filament:- The filament shall be of tungsten wire 0.015 mm. in diameter and 30 mm. long. It should be as straight as possible and be as close as possible to the axis of the tube so that when it is carrying its maximum current (65 mA) it is well clear of the inside wall of the bulb.

Leads:- The copper clad leads shall be straight, clean and bright, and free from borax.

Glass:- The glass bulb shall be clean and free of air-lines and other blemishes.