MINISTRY OF SUPPLY (D.C.D.) VALVE ELECTRONIC **CV360**

Specification MAP/CV360/Issue 4 Dated 21.7.49. To be read in conjunction with K1001, ignoring clauses 5.2, 5.8.	SECURITY Specification: [redacted] Unclass Valve: UNCLASSIFIED

→ Indicates a change

TYPE OF VALVE: Gas-filled power indicator tube **CATHODE:** None **ENVELOPE:** Glass **PROTOTYPE:** VX3039	**MARKING** CV.360 in black cyphers on a red background round the cap. **BASE** None
RATING This indicator tube is suitable for measuring peak powers between 450 kW. and 800 kW. in a waveguide at frequencies of the order of 3300 mc/s.	**DIMENSIONS** See drawing on page 3.

REQUIREMENTS

The gas filling shall be the standard commercial mixture of neon with 20% ± 0.5% Helium and 0.4% ± 0.1% Argon, Mercury free, at a pressure equivalent to 30mm. of Mercury.

To be performed in addition to those applicable in K1001

	Test	No. Tested	Notes
a	Height of glow, at the full power available from the test gear shall be within ±1 mm of height of glow in standard tube	100%	1, 2 & 3

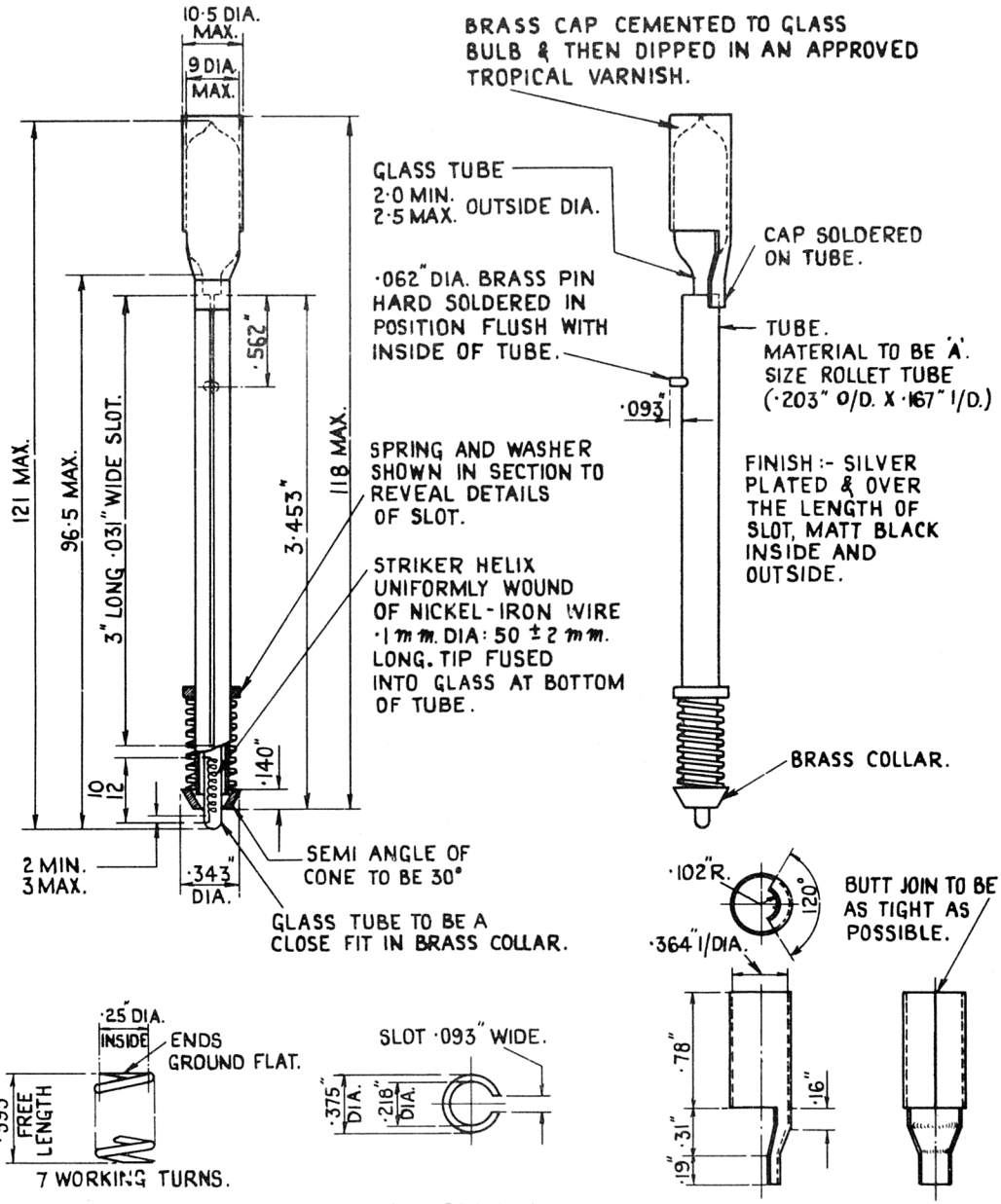
NOTES

1. These tests to be carried out at least 24 hours after tubes have been assembled into tube holders.

2. Tests to be carried out using a power source, such as TR3519A Ref. No. 10DB/6206 driven by a Modulator Unit 158 Ref. No. 10DB/6208 delivering 150 kW to 200 kW at 3350 ±20 Mc/s with 1.0 μsec pulse length and 600 p.r.f. The power shall be fed into a special test unit, which will be supplied, and then into a waveguide with approved termination giving a standing wave ratio less than 1.5 to 1.0. The test gear shall be set up to give the same glow height on a standard tube when it is inserted in each of two test sockets (placed approximately 1/2 λ apart) in turn, and this glow height shall be not less than 45 mm. The standard tube is then left in one socket and the tube under test is inserted in the second socket.

3. The Glow Height shall, in all cases, be measured from the outside surface of the waveguide of the special test unit.

CV360



DETAIL OF SPRING
MAT^{L} :- PHOS. BRONZE WIRE 20 S.W.G. (·036")
FIN :- SILVER PLATED.

DETAIL OF WASHER.
MAT^{L} :- BRASS 14 S.W.G. (·08")
FIN :- SILVER PLATED.

DETAIL OF CAP.
MAT^{L} :- BRASS. 26 S.W.G. (·018")
FIN :- CLEANED.

DETAILS OF SPRING, WASHER & CAP.

ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED.
TOLERANCE ON ALL INCH DIMENSIONS TO BE ±·005"

Electronic Valve Specification CV360
issue 4, dated 21st July, 1949
Amendment No. 1

Page 1, Rating: Delete and replace with:-

"The glow height for a peak power of 134 kW for 1.0 microsecond, at 3300 mc/s approximately, in a $2\frac{1}{2}$" x 1.0" I.D. waveguide, wall thickness 0.063", with the tube seated in a hole 0.265 $^{+0.002"}_{-0.0}$ DIA. on the centre line of the broad face, is 5.8 cms approximately. (The corresponding r.m.s. electric field is 3.0 kV per cm).

April, 1962 Royal Radar Establishment

(12108)