Ministry of Aviation - R.R.E.

VALVE ELECTRONIC **CV359-60**

Specification MOA/CV359, CV360
Issue 5, dated 25th September, 1964

To be read in conjunction with
K1001 excluding 5.2, 5.8

Security	
Specification	Valve
Unclassified	Unclassified

Indicates a change

Type of Valve Gas filled power indicator tube

Cathode - None

Envelope - Glass

Prototype - VX3039

Marking

CV359 in black cyphers on a GREEN background round the cap.

CV360 in black cyphers on a RED background round the cap.

Rating

These tubes are suitable for indicating peak power in a waveguide at S band. CV360 is more sensitive than CV359.

Packing

K1005

Dimensions

See drawing on page 3

NATO Stock Nos.	CV No.
5960-99-000-0359	359
5960-99-000-0360	360

NOTES

A. The gas filling shall be a mixture of inert gasses, predominantly neon.

Tests

To be performed in addition to those in K1001

	Test	No. tested	Notes
a	Height of glow to be within ± 1 mm of height of glow in a standard tube	100%	1,2,3.
→ b	Retest after 14 days holding period. Height of glow to be within ± 1 mm of height of glow in a standard tube.	AQL = 0.65% Insp. Level II	2,3,6.

Notes

1. The test shall be carried out at least 24 hours after the tubes have been assembled into tube holders.

→ 2. Tests to be carried out using a power source delivering 100 KW - 200 KW peak power at 3350 ± 50 mc/s, with 1.0 microsec. ± 10% pulse length at a pulse repetition frequency of 600 pps ± 20%. The power will be fed through the approved test mount, specified in note 4 below, and absorbed in a termination giving a VSWR of less than 1·2/1. A standard tube as specified in note 5, of the same type as the tubes under test shall be inserted into each socket of the approved mount and the power and VSWR pattern shall be adjusted until the glow heights agree to within ± 1 mm, and until the glow heights exceed 30 mm when testing CV359 tubes, and 45 mm, when testing CV360 tubes. The tube under test shall be inserted into the vacant socket.

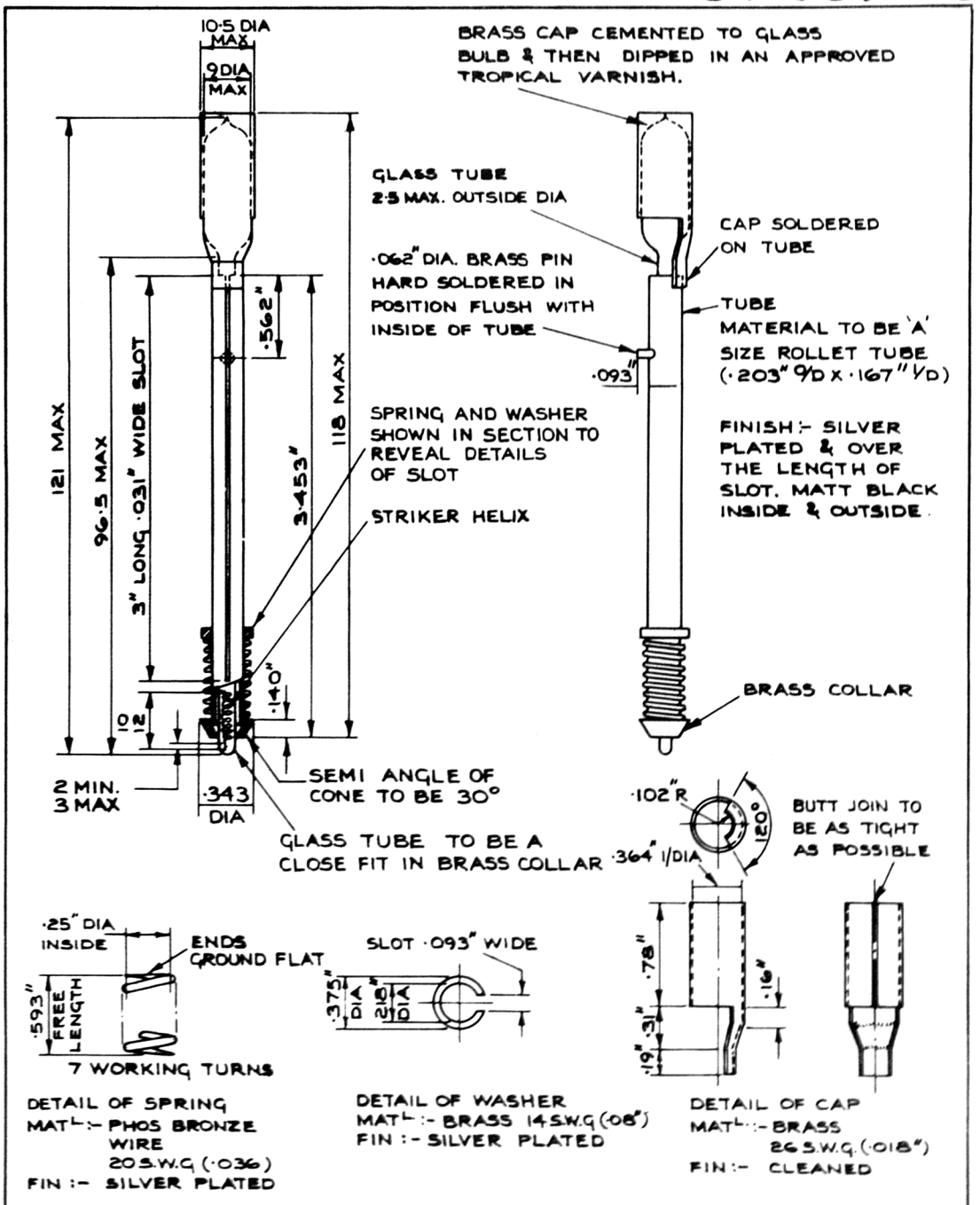
3. The glow height shall be measured from the outside face of the waveguide wall of the approved test mount.

→ 4. For Qualification Approval, two approved test mounts shall be submitted to the Approving Authority. One mount will be held by the Approving Authority, the other will be returned for use by the manufacturer. The mounts shall be similar, and have similar performance. Each test mount shall be made from waveguide of inside dimensions 2½" x 1" and of wall thickness 16SWG. Two test sockets shall be provided in the waveguide, each to be a hole of diameter 0.2661/0.2656 inches, spaced 2.500" ± 0.005" apart along the centre line of one broad face. The holes may be in hardened steel bushes spigotted into and soldered to the wall of the waveguide and made flush with the waveguide surface, if durability is desired. Suitable brackets shall be provided to hold the tubes perpendicular to the broad face when inserted into the test sockets.

→ 5. For Qualification Approval, the manufacturer shall submit two standard tubes and four production tubes of the appropriate type to the Approving Authority. One standard tube and one production tube will be returned to the manufacturer for sealing, the others will be kept as sealed Q.A. samples by the Approving Authority.

→ 6. The manufacturer may omit test (a) provided that he carries out test (b) on all valves.

CV 359-60



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"