

ADMIRALTY SIGNAL ESTABLISHMENT

Specification AD/CV119/Issue 4. Dated 10.3.47. To be read in conjunction with K1001, ignoring clause:- 5.8.	<u>SECURITY</u>	
	<u>Specn.</u> Restricted	<u>Valve</u> Unclassified

<u>TYPE OF VALVE:-</u> Bolometer indicator. <u>FILAMENT:-</u> Directly heated tungsten. <u>ENVELOPE:-</u> Glass, clear. <u>PROTOTYPE:-</u> A.S.E. Type "XJ".	<u>MARKING</u>
	See K1001/4. For Additional Marking. See Fig. 1.

<u>RATING</u>	Note	<u>DIMENSIONS &amp; CONNECTIONS</u>
Current for "just glowing" (A) 0.7 Max. running dissipation (W) 50		See Fig. 1.  <u>PACKING</u> See K1001/7.

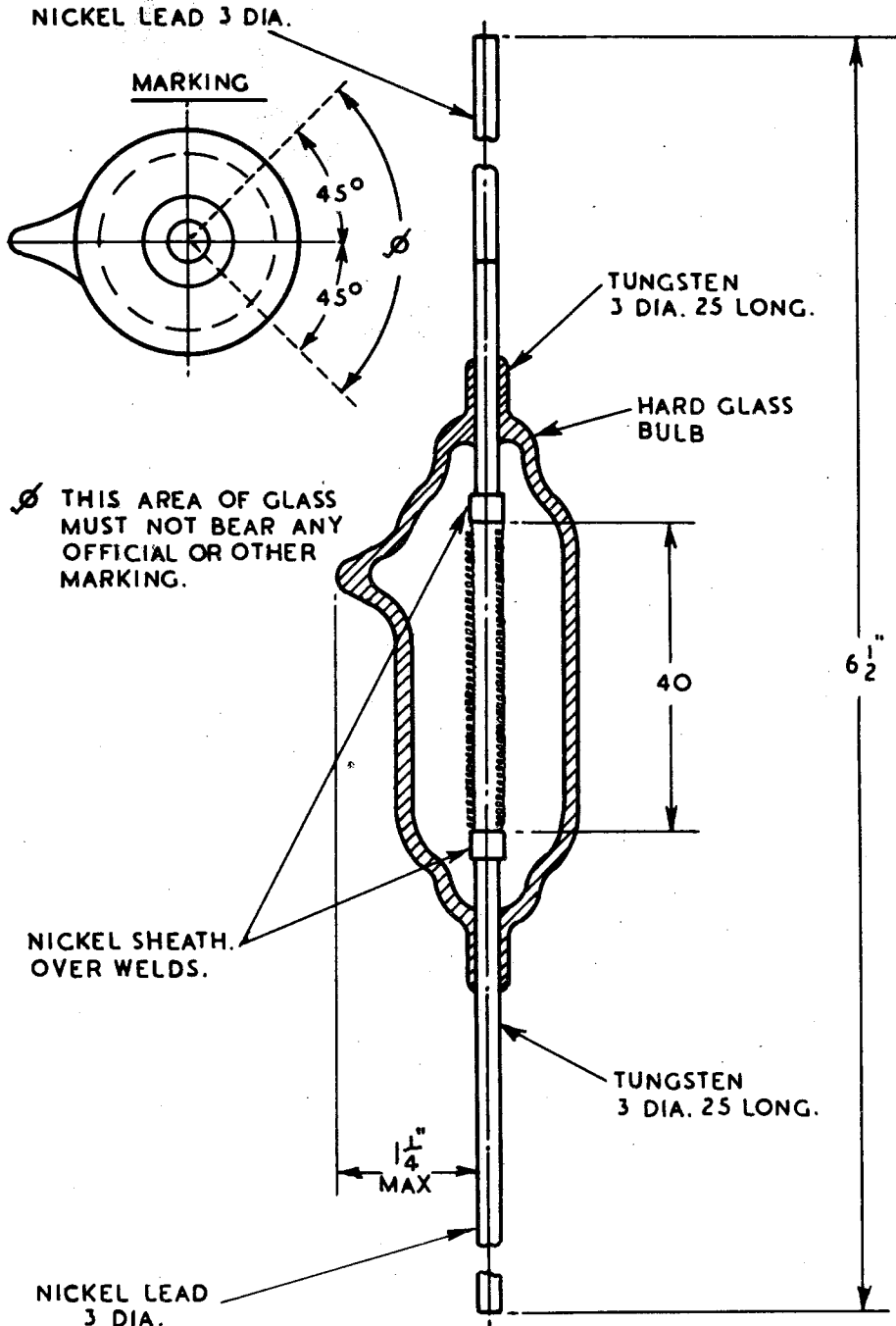
NOTES & TEST

- The indicator is to be evacuated to a pressure of about  $10^{-6}$  mm of mercury. Before sealing off, the filament must be run for 5 minutes with  $I_f = 4.8$  A. At the end of this period, the  $V_f$  for  $I_f = 4.8$  A shall be between the limits  $20 \pm 2$  V.
- The indicator should be mounted vertically during pumping, to minimise sagging of the filaments.

CONSTRUCTIONAL NOTES

A. Filament. Tungsten 0.15 mm. dia. wound and annealed to dull red on 0.56 mandril. Two 15 mm. lengths of the close-wound spiral stretched to 35 mm. and welded to supports, and then stretched to 37 mm. Final stretching to 40 mm. done at sealing in. Axes of filament 4 mm. apart.

B. Glass bead. Centred on tungsten part of lead-out wire.



DIMENSIONS ARE IN MILLIMETRES AND NOMINAL UNLESS OTHERWISE STATED.