

Specification MAP/CV1103/Issue 7
Dated 16.9.47.
To be read in conjunction with
K1001.

SECURITYSpecification

RESTRICTED

Valve

UNCLASSIFIED

→ Indicates a change

TYPE OF VALVE - Tuning Indicator
CATHODE - Indirectly heated
ENVELOPE - Glass-unmetallised
PROTOTYPE - Y63

MARKING

See K1001/4

RATING

Heater Voltage (V)	6.3	A
Heater Current (A)	0.3	
Max. Anode Voltage (V)	250	
Max. Target Voltage (V)	250	
Target Current (approx.) (mA)	4.5	B
Triode Current (approx.) (mA)	0.24	C
Triode grid volts for 0° shadow angle (approx.) (V)	-22	C

Note

BASE

I.O.

Pin

Electrode

1	No connection
2	Heater
3	Anode
4	Target
5	Control grid
6	Pin omitted
7	Heater
8	Cathode

DIMENSIONS

See K1001/AI/D1.

Dimension

Min.

Max.

A	(mm)
B	(mm)

101

107

-

40

NOTES

A. The valve must operate satisfactorily over a heater voltage range of 5.7 to 7.5 volts.

B. At $V_g = 0$.

C. At $V_a = 250$, through 1 MΩ

To be performed in addition to those applicable in K1001.

	Test Conditions				Test	Limits		No. Tested	Notes
	Vh	Va	Vt	Vg		Min.	Max.		
For tests b, f, g and h the anode voltage is to be applied through a resistance of $1\text{M}\Omega \pm 1\%$.									
a	6.3	0	0	0	Ih (A)	0.27	0.33	100% or S	
b	6.3	180	180	-	The target shall be reasonably free from uneven brightness and from poorly defined and irregular shadow edge			100%	1
Vg adjusted so that the shadow is not quite closed.									
c	6.3	250	250	-6	Ia (mA)	4.0	9.3	100%	
d	6.3	250	250	-6	Target Current (mA)	0.5	6.5	100%	
e	6.3	250	250	-6	Reverse Ig (μA)	-	1.0	100%	
f	6.3	250	250	-3	Shadow to be open to an angle of approx. 60 degrees			100%	2
g	6.3	250	250	-16	Shadow shall not be closed			100%	2
h	6.3	250	250	-40	Shadow shall be closed at outer edge, and any gap at inner edge must not exceed 1 mm.			100%	2

NOTES

1. This test must be carried out before any of the tests in which $V_a = V_t = 250\text{V}$.
2. Under the conditions specified for tests f, g and h, the target shall be reasonably free from:-
 - a. Uneven brightness of illuminated section.
 - b. Bright patches in the shadow section.
 - c. Poorly defined and irregular shadow edge.