VALVE ELECTRONIC CVII93 (NR82)

ADMIRALTY SIGNAL ESTABLISHMENT

Specification AD/CV1193/Issue 5.

Dated 31.10.46.

To be read in conjunction with K1001.

SECURITY

Specification Valve
Unclassified

RATING	TYPE OF VALVE: - Triode-hexode frequency		MARKING							
RATING RATING RASE IO	<u>CATHODE</u> :- Indirectly heated.						See K1001/4.			
RATING RASE IO	ENVELOPE:- Glass, unmetallise									
Heater Voltage (DC or AC)	PROTOTYPE:- X65.									
Heater Voltage (DC or AC) (V) Heater Current (A) 0.32 1 No connection	RATING									
Heater Voltage (DC or AC) (V) 6.3 0.32 1 No connection	· · · · · · · · · · · · · · · · · · ·									
Heater Voltage (DC or AC) (V) Heater Current (A) 0.32 250 Max. Anode Voltage (V) 100 250 Max. Soreen Voltage (V) 250 A Screen Grids G2 and G4 Garden Grid Peak Voltage (V) 10 5 Oscillator and Mixer Grid G7 Grid Voltage (V) -3 Grid G3 Anode Grid G7 Grid G8 Garden Grid G8 Garden Grids G2 and G4 Grid G7 Grid G8 Garden G8 Ga			Note	See K	1001/AIV/1	02.	<u> </u>			
Heater Current	Heater Welters (DC'or AC) (V)	6.3		Pin Electrode						
Max. Anode Voltage (Y) 250 Max. Screen Voltage (Y) 100 Oscillator Anode Voltage (Y) 250 Min. Control Grid Peak Voltage (Y) 10 Average Total Cathode Current (mA) Average Conversion Conductance (at Vg1 = -3) (numbos) Average Conversion Conductance (at Vg1 = -35) (numbos) Conversion Impedance (M) Range of Vh for satisfactory operation Cg1-all Cg1-a Ca-all Cg0-ao Cao-all Cgo-ao Cao-all Cgo-all Cgo-all Cgo-g1 Max. Anode Voltage (Y) 100 250 A			†	1 No connection						
Max. Screen Voltage (V) 250 A 3 Anode Oscillator Anode Voltage (V) 100 Oscillator Grid Peak Voltage (V) 10 Min. Control Grid Voltage (V) 40 Average Total Cathode Current (mA) Average Conversion Conductance (at Vg1 = -3) (numbos) Average Conversion Conductance (at Vg1 = -35) (numbos) Conversion Impedance (M C) Range of Vh for satisfactory operation (V) Cg1-all Cg1-all Cg0-ac Cac-all Cac-ac Cac-all Cac-ac Cac-all Cac-ac Ca		-		2	Heater					
Oscillator Anode Voltage (V) Oscillator Grid Peak Voltage (V) Min. Control Grid Voltage (V) Average Total Cathode Current (mA) Average Conversion Conductance (at Vg1 = -3) (numbos) Average Conversion Conductance (at Vg1 = -35) (numbos) Conversion Impedance (M) Range of Vh for satisfactory operation (V) Cg1-all Cg1-all Cg0-ao Cao-all Cg0-all Cg0-all Cg0-all Cg0-all Cg0-g1 A Screen Grids G2 Oscillator and Mixer Grid G3 Oscillator Anode Heater Cathode Control Grid, G1 TOP CAP See K1001/AI/D5.2. DIMENSIONS See K1001/AI/D1. Dimension Min. Max. A mm - 114 Cg B mm - 41.55 PACKING	Mare terrore in a	100		3	4 Screen Grids G2					
Oscillator Grid Peak Voltage (V) Min. Control Grid Voltage (V) Average Total Cathode Current (mA) Average Conversion Conductance (at Vg1 = -3) (numhos) Average Conversion Conductance (at Vg1 = -35) (numhos) Conversion Impedance (M		250	A	4						
Min. Control Grid Voltage (V) Average Total Cathode Current (mA) Average Conversion Conductance (at Vg1 = -3) (numbos) Average Conversion Conductance (at Vg1 = -35) (numbos) Conversion Impedance (M n.) Range of Vh for satisfactory operation (V) Cg1-all Cg1-a Ca-all Cg0-ac Cac-all Cg0-ac Cac-ac Ca	000000000000000000000000000000000000000	10		5	5 Oscillator		r and Mixer			
Average Total Cathode Current (mA) Average Conversion Conductance (at Vg1 = -3) (numbos) Average Conversion Conductance (at Vg1 = -35) (numbos) Conversion Impedance (M _ n_) Range of Vh for satisfactory operation Cg1-all Cg1-a Ca-all Cg0-ao Cac-all Cg0-all Cg0-all Cg0-g1 Average Conversion Conductance (na) Author Cumbos Control Grid, G1 FOP CAP See K1001/AI/D5.2. See K1001/AI/D5.2. Dimension Min. Max. Cumbos Cumbos Cathode Control Grid, G1 C		-3	ļ		Grid G3 6 Oscillator Anode 7 Heater					
Current (mA) Average Conversion Conductance (at Vg1 = -3) (umhos) Average Conversion Conductance (at Vg1 = -35) (umhos) Conversion Impedance (M_n) Range of Vh for satisfactory operation (V) Capacitances (pF.) Capacitances (p	Average Total Cathode	11		-						
Average Conversion Conductance (at Vg1 = -3) (umhos) 225 B TC Control Grid, G1	Current (mA)									
(at Vg1 = -3)	Average Conversion Conductance	İ		_			m.4			
(at Vg1 = -35) (amhos) 0.2 B 100 det Conversion Impedance (M C) (M C) 2.5 See K1001/AI/D5.2. See K1001/AI/D5.2. DIMENSIONS See K1001/AI/D1. Capacitances (pF.) Cg1-all Cg0-ac Ca-all Cg0-all Cg0-all Cg0-all Cg0-g1 C	$(at Vg1 = -3) \qquad (aumhos)$	0.2 2.5	В	TC	Control Grid, G1					
Range of Vh for satisfactory operation (V) 5.7 - 7.5 See K1001/AI/D5.2.	(at Vg1 = -35) (aumhos)		. B		TOP CAP					
Operation (V) 5-7 - 7-9 DIMENSIONS Capacitances (pF•) See K1001/AI/D1. Cg1-all 0.12 Dimension Min. Max. Cg-all 0.12 C A mm - 114 Cg0-all 0.2 C B mm - 41.5 Cg0-g1 0.2 C PACKING	Banca of Wh for satisfactory			See K1001/AI/D5.2.						
Cg1-all		5-7 - 7-5		DIMENSIONS						
Cg1-all 3.5 C Cg1-a 0.12 C Ca-all 5.5 C Cg0-ao 2.0 C A mm - 114 Cg0-all 10.4 C B mm - 41.5 Cg0-g1 PACKING	CAPACITANCES (pF.)	3. 5		See K1001/AI/D1.						
Cg1-a 0.12 C Ca-all 5.5 C Cg0-ao 2.0 C A mm - 114 Cg0-all 5.5 C Cg0-g1 10.4 C B mm - 41.5 PACKING	Cg1rall			Dimension		Min.	Max.			
Cgo-ao Cao-all Cgo-all Cgo-g1 Cgo-ac 10.4 Cgo-g1 Cgo-ac 10.4 Cgo-g1 Cgo-ac 10.4 Cgo-ac Cgo-ac 10.4 Cgo-ac Cgo	Cg1-a	5•5	C							
Cgo-all Cgo-g1 10.4 Cgo-g1 10.4 Cgo-g1 PACKING			1 -	A mm	1		174			
PACKING	Cgo-all	10.4	С	B mun			41.5			
See F1001/7	Ggo-g1			PACKING						
See K. W. A.	,			See K1001//7.						

NOTES

- A. Vao applied through 30,000 ohms.
- B. Vgo = 10 V peak.
- C. Measured with external valve shield.

CVII93

To be performed in addition to those applicable in K1001.

	Test Conditions					Limits		No.		
	Vh (V)	Va (V)	Vg2 (V)	Vg1 (V)	Vac (V)	Test	Min.	Max.	Tested	Notes
а	6.3	-	-		•	Ih (A)	0.27	0. 37	100% or S	
ģ	6.3	250	100	-3	100	Total Cathode return current (mA)	7•7	14+5	100%	1
C	6.3	250	100	-3	100	Ge (MA/V)	146	304	100%	1 2
đ	6.3	250	100	- 20	0	Ia tail (MA)	3	300	100%	1
•	6•3	250	100	- 3	100	Reverse Ig (MA)	•	1.0	100%	1
f	desca	ibed i	tested in Specifior the V	ication	D. C. D.	H.F.Oscillation Positive Ig (MA)	- 68	-	5%	3

NOTES

- 1. Vgo = 10 V peak AC applied through 50,000 ohms.
- 1 V peak AC applied to g1; test to be performed in an approved circuit.
- 3. If necessary an alternative test may be applied, with agreed positive grid current limits, by arrangement with the issuing authorities.