### ELECTRONIC VALVE SPECIFICATIONS

### SPECIFICATION AD/UV2901 Issue No. 1 dated 22.11.55.

### AMENDMENT No. 1.

Page 1. Dimensions.

Amend dimension "A"
Seated Height to read
49 mm, and dimension
"D"-Overall Length to
read 56 mm.

Mutual Conductance

Amend figure to read 2.0 mA/V.

/Capacitance.

Clause "a"

Amend Cge to read: - 3.85 pF

" Cae to read: - 5.15 pF

Clause "a"

Amend Cge limits to read: 3.4 pF min. and 4.3 pF max.

Amend Cae limits to read: 4.5 pF min. and 5.8 pF max.

Clause "e"

Amend limits to read: 1.55 mA/V min. and 2.45 mA/V max.

November, 1959. Admiralty Surface Weapons Establishment.

N. 8355/D

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# VALVE ELECTRONIC CV2901

## ADMIRALTY SIGNAL AND RADAR ESTABLISHMENT

Specification AD/CV2901	SECURI	TY	
Issue No. 1 dated 22.11.55.	Specification Unclassified	<u>Valve</u> Unclassified	
To be read in conjunction with K1001, B.S.448 and B.S.1409	OUCTERST1 140		

TYPE OF VALVE: Low Hum, Low Microphony Pentoc CATHODE: Indirectly heated	<u>Marking</u> K1001/4 <u>Base</u> B. S. 448/B9A					
ENVELOPE: Glass, Unmetallised EROTOTYEE: EF86, Z729						
		Note	CONNECTIONS			
Heater Voltage Heater Current (V)	6.3 0.2		Pin	Electrode		
Max. Anode Voltage (Ia = 0) (V) Max. Screen Voltage (Ig2 = 0) (V) Max. Anode Dissipation (W) Max. Screen Dissipation (W) Max. D.C. Anode Voltage (V) Max. D.C. Screen Voltage (V) Max. Cathode Current (MA) Anode Current (MA) Screen Current (MA) Mutual Conductance (MA/V) Anode Impedance (Megohms)	550 550 1.0 0.2 300 200 6.0 3.0 0.55 1.85	A B B B B	1 g2 2 s 3 k 4 h 5 h 6 a 7 s 8 g3 9 g1			
"Inner" Amplification Factor  Vhk Max. (V)	2•5 38 50	2	DIMENSIONS  B. S. 448/B9A/2.1  Size Ref. No. 3			
Max. external resistance) for Wa > 0. between g1 and k ) for Wa < 0.	Size Ref.No.3  No.2W = 3M.A.  Dimensions (mm) Min Max.  A.Seated Height - 60.5					
CAPACITANCE (pF)  Cag (max) Cge Cae	0.05 4.3 5.1	000	C.Diameter D.Overall Len	19.0 22.2		
NOT	E S					
A. Absolute maximum values.						
B. Measured at Va = 250, Vg2 = 140, C. Measured without metal screen.	, Vg1 =	<b>-2.</b>				

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Z.10779.R.

TESTS

To be performed in addition to those applicable in K1001

				_	34 4					$\neg$	Lim	its	No. Tested	Note
	_				ondit	_		i	Test	Vin.	Yax.	Tested		
	P	ins		Pi	A. II		Pir	Г	apacitances	(pP)				
a		H. P. 6		_	<u>. P.</u> 9	1.2.3.4		3.4	c <sub>ag</sub>		-	0.05	T.A.	1
	-	9 1,2,3,4, 6		5	gge		3.85	4.6	20 per	1				
	+	6		1	,2,3, 5,7,8	4,		9	Ç <b>a</b> e		4.8	5•7	week	1
		/h (V)	Va (V	Τ	Vg3 (V)	٧	(g2 (V)	Vg1 (V)	•	4.5	. 405	0.215	100% or S	
Ъ	1	6.3	(	2	0	_	0	0	Th	(A) (mA)		0.215	100%	2
٥	-	6.3	1/	$\dashv$	0	┝	14	14	Emission	(mA)	<del>                                     </del>	3.85	100%	
٤	-	6.3		50	0	┢	140 140	-2.0 -2.0	,	mA/V)	1	2.3	100%	
H	-+	6.3	-	50 50	0	╀	140	-7.0		(pa)		40.0	100%	3
H	<u> </u>	6.3	┝	250	₩	t	140	<del>                                     </del>	Ig2	(mA	) -	.85	100%	<b></b>
T	g	6.3		250		t	140		Reverse Ig1	(,uA	) 0	9.4	100%	
-	h j	6.3	╁╴	100	<del>                                     </del>	t	75	+	Microphony	(⁄u∀	) 0	70.0	See Note	4,6,
+	k	6.3	+	100	0	$\dagger$	75	-1.4	Hum (Grid)	(juV	) 0	5.0	100%	5,6
	1	6.3	t	100		1	7:	5 -1.	Hum (Cathode)	(Ju	0	50.0	100%	5,6
	<u></u>	6.3	$\dagger$	100	-	†	7	1	4 Hiss	(Jul	7) 0	5.0	100% or S	6,7

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#### NOTES

- 1. Measured at 1.0 Mc/s approx. and without metal screen.
- 2. The test voltage shall be applied only for as long as is necessary to measure the cathode current.
- 3. With 1 megohm meter-protecting resistance in series with anode.
- 4. Readings are to be taken with valve vibrating with an excitation frequency between 25 and 50 c/s at  $2\frac{1}{2}g$ , with vibration applied perpendicular to the plane of grid 1. During vibration, the valve shall be tapped lightly. The highest reading obtained before or after the tapping shall be the recorded value. The number of valves tested shall be in accordance with Inspection Level = I and AQL = 2.5%.
- 5. The valve shall be tested using a low-loss test socket. The Hum tests shall be conducted by alternately earthing Pins 4 and 5; the highest reading being recorded.
- 6. Valves to be tested in the amplifier described in Appendix A to this specification. Copies of this Appendix may be obtained from the specifying Authority. The limits given in the specification refer to the equivalent grid 1 R.M.S. voltage.
- 7. Microphony and Hiss tests may be conducted with D.C. heating of the cathode.

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