VALVE ELECTRONIC CV4052

ADMIRALITY (A.S.R.E.)

Specification Adm/CV4052	SECURITY				
Issue No. 1 Dated 24.10.55.	Specification	<u>Yalve</u>			
To be read in conjunction with Kl001 and BB1409	Unclassified	Unclassified			

r				Τ	.			
TIPE OF VALVE - Reliable Cas-filled Voltage Stabiliser with flexible leads			<u>MARKING</u> K1001/4					
CATRODE - Cold								
ENVELOPE - Glass					В	ASE		
PROTOTTPE - VI9132			r*		B7	G/F		
RATINO			NOTE					
Max, Striking Voltage Mominal Stabilised Voltage Haz, Anode Current	(A) (A)	133 108 15		CONDECTIONS				
Hin. Anode Current	(<u>m</u>)	2		Lead		Electrode)	
Voltage Regulation over current range Max. Acceleration (Continuous Operation)	(T) (g)	3 2 ₄ 5		1 2 3 4 5	a k cted k a seted			
Max. Shock (Short Duration)	(g)	500		6 Internally Connected 7 Cathode is				
				DIMENS IONS K1001/A1/D11				
		1		Dimensio	n (201)	Min.	Max.	
				A.Seated height B.Diemeter C.Leed length		- 16 38	47.5 19 	
·				MOUNTING POSITION ANY				
	NOTES							
A. All limiting values are	absolute							

TESTS

To be performed in addition to those applicable in K1001

Tests are to be performed in the specified order unless otherwise agreed with the Inspecting Authority.

Test conditions, unless otherwise specified:-

Va(V) Adjusted R lim.(ohms)

Ia (mA) 10.0

A D.C. voltage not exceeding 50V shall be applied between anode and cathode through a limiting resistance of 5K ohms, and shall be increased steedily at a rate not exceeding 25V/Sec. until the valve strikes. The ripple content of the supply shall not exceed 0.25%.

After the valve has struck, the supply voltage shall be further increased until the anode current is 10.0 mA. It shall be maintained constant for 3 mins, before any characteristic other than striking voltage is measured.

K1001	Test	Test Conditions	AQL	Insp.	Symbol		mits Max.	Units	Notes
11.1 7.£	Vibration Lead continuity Class strain	No voltages No voltages No voltages	2,5	100% 100% 1					1
	GROUP A Lenkage Striking voltage Haintaining voltage Regulation	Va = 50V Sv _m for change in		100% 100% 100%	V _S V _m	104	20 133 112	/ttA V V	
	Electrical noise,	In from 2 to 15 mA In varied over the range 2 to 15 mA		100%	Ve A.C.	-	3 50	WF P/P	2
	Voltage jumps.	Ia varied over the range 2 to 15 mA		1.00%		-	1	٧	2
	GROUP B Lead fragility	No voltages	6.5	I.					
11.2	GROUP C Resonance Search	Combined AQL Frequency 25-500 c/s	6.5	IA					
11.3	Noise output due to resonance. Fatigue Test	No voltages Duration 3 x 23 hrs. acceleration = 5 g	2,5	IA	VB A.C.	1	25	m7 P/P	
	Post Fatigue Test Striking Voltage. Change of	Frequency = 170 c/s	2,5		٧s	-	133	٧	
11.4	maintaining voltage Shock Test	No voltages Hammer angle = 300	2,5	IA	8 V _m	-	*1.5	▼	
	Post-Shock Test Striking Voltage Change of maintaining voltage		2.5 2.5		S v _m	-	133 *1.5	V V	

K1001	Test	Test Conditions	MAT X	Insp.	Symbol .	Limits		Units	Notes
				Level		Kin.	May.		<u> </u>
AV1/5	GROUP D	Combined AQL	6.5						
	Life Test			IA .				1	
	Intermediate Point								1
	200 hrs. Maintaining Voltage		2.5		S₹ _m	-	<u>+</u> 2	₩ ₩	1
	change.								i
	End point 1000 hrs. Inoperatives	,	2,5						i
	Striking Voltage.		2,5		٧s	-	134	₩	
	•							ł	
	Maintaining Voltage change over		2,5		٤٧ _n	_	±1		
	200 to 1000 hrs.				, <u>, , , , , , , , , , , , , , , , , , </u>				
AII/2.5	GROUP E	Combined AQL	2,5						
	Electrical re-test			100%					
	after 28 days		1 1						
ļ	holding period		1 1	ľ					
	Inoperatives		0.5			- 1			
j	Striking Voltage		0.5	İ	٧g	-	134	٧	
	Maintaining Voltage		0.5	ĺ	v _e	103	113	٧	. ;

NOTES

- 1. This test shall be performed only once and by the valve manufacturing department in order to remove catastrophic failures.
- 2. A calibrated amplifier detector having a substantially linear response over the range from 25 to 5000 c.p.s. to be connected between anode and cathode. The anode current is to be varied slowly from 2.0 to 15.0 mA at least three times, the rate of sweep being not more than 1 mA per second.