

Customer :

No. KX-97-1792

Date: Feb. 19, 1997

Attention:

Your ref. No:

Your Part. No: 29 0006

# SPECIFICATIONS

ALPS:

MODEL 29 0006

Spec. No. :

Sample No. : W1011757M

RECEIPT STATUS  
RECEIVED.

By. Date

Signature

Name

Title

ALPS ELECTRIC CO., LTD.

HEAD OFFICE  
1-7, YUKIGAYA-OHTSUKA-CHO.  
OHTA-KU, TOKYO 145 JAPAN

DSG'D H. Kimura

APP'D Y. Ohya

ENG. DEPT. DIVISION

Sales

SPECIFICATIONS

1. THIS SPECIFICATIONS APPLY TO RR09K1110 POTENTIOMETERS.

2. CONTENTS OF THIS SPECIFICATIONS.

W1011757M  
R091B0294

3. MARKING

- MARKING ON ALL UNITS  
DATE CODE, RESIST. VALUE, TAPER

4. REMARKS

- NOTES

- METHOD OF MARKING  
TO BE STAMPED WITH BLACK INK OR LASER MARKING  
- This unit uses polycarbonate. To be careful for using this unit in such violent  
gas atmospheric condition as ammonia, amine, alkaline aqueous solution, aromatic  
hydrocarbon, keton, ester, alky/ hydrocarbon, etc.

## SPECIFICATIONS

### ELECTRICAL

1. Total resistance :  $10k \Omega \pm 20\%$
2. Rated power : 0.05 W
3. Rated voltage :

The rated voltage shall be the voltage of D. C. or A. C. (commercial frequency, effective value) corresponding to the rated power (dissipation), and be obtained from the following formula. When the obtained rated voltage exceeds the maximum working voltage given in the following, however, the maximum working voltage of the following shall be the rated voltage.

$$E = \sqrt{P \cdot R} \text{ (V)}$$

Where E : Rated voltage (V)  
 P : Rated power (dissipation) (W)  
 R : Nominal total resistance ( $\Omega$ )

Maximum working voltage : 50 V A. C. , 20 V D. C.

4. Residual resistance between terminals  
 between term. 1&2, term. 2&3 : 300 $\Omega$  max.
5. Sliding noise : Less than 100 mV measured by method of JIS C 6443.
6. Insulation resistance : Greater than 100 M $\Omega$  measured by D. C. 250V.
7. Withstand voltage: More than 1 minute with an application of A. C. 250 V.
8. Taper : A

### MECHANICAL


1. Overall rotational angle :  $280^\circ \pm 5^\circ$
2. Operation torque : 10~80 gf·cm
3. Shaft end stop strength : 3 Kgf·cm MIN.
4. Starting torque : 100 gf·cm MAX.
5. Resistance to soldering heat :  
 After soldering (Less than 300°C and quicker than 3 seconds) there shall be no evidence of poor contact between resistance element and terminals, or any physical damages as a result of the test.
6. Play of shaft :  
 The resistor shall be mounted by soldering the mounting legs on the panel, and a side thrust of 250 gf·cm at the end of the shaft shall be applied, then the total play of the shaft shall not exceed  $0.5 \times L / 20$  mm p-p.
7. Eccentricity of shaft :  
 The eccentricity of the root of shaft shall not exceed 0.35mm against the center of the mounting position.
8. Robustness of shaft against end thrust :  
 The shaft shall withstand against end thrust of not less than 5 Kgf for 3 seconds.
9. Robustness of shaft against side thrust :  
 The shaft shall withstand against side thrust of not less than 4 Kgf·cm for 3 seconds on the end of the shaft at right angles to the axis of the shaft after mounting the resistor by soldering.

### ENDURANCE

1. Rotational life : 5,000 cycles min.

### NOTE

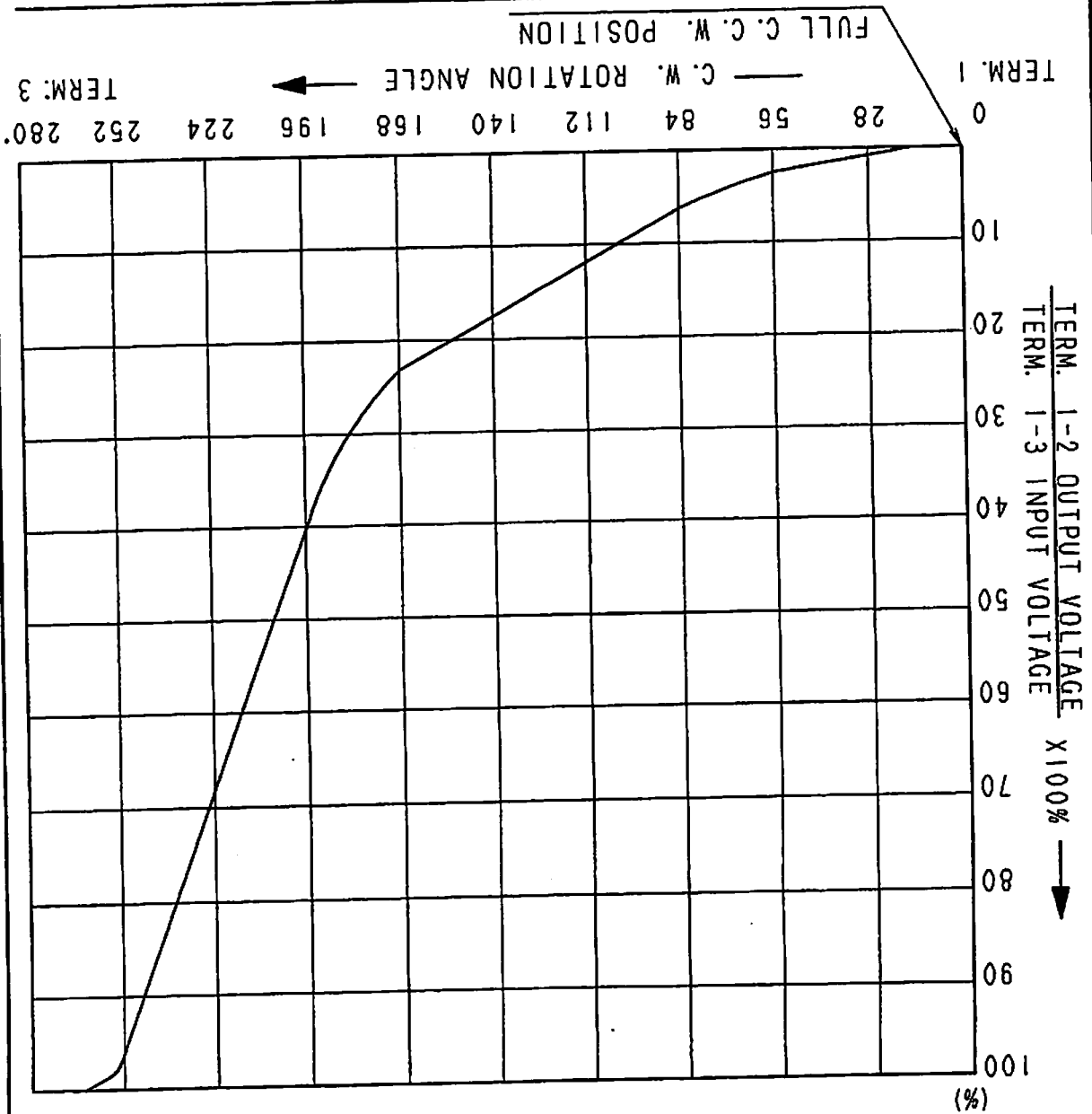
1. The items except above mentioned items shall meet or exceed JIS C 6443.
2. Operating temperature : -10°C~+60°C, 3. Storage temperature : -30°C~+70°C.

 <b>ALPS ELECTRIC CO., LTD.</b>				
	APPD.	CHKD.	DSGD.	TITLE
	Sep. 13. '96	Sep. 13. '96	Sep. 13. '96	
	S. Aizawa	H. Saloh	Y. Sailoh	DOCUMENT NO.
				W1011757M
SYMB	DATE	APPD	CHKD	DSGD

KX09

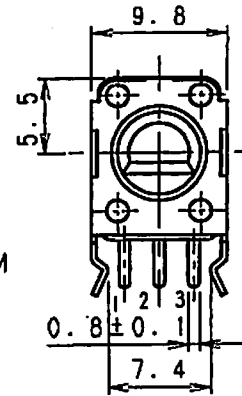
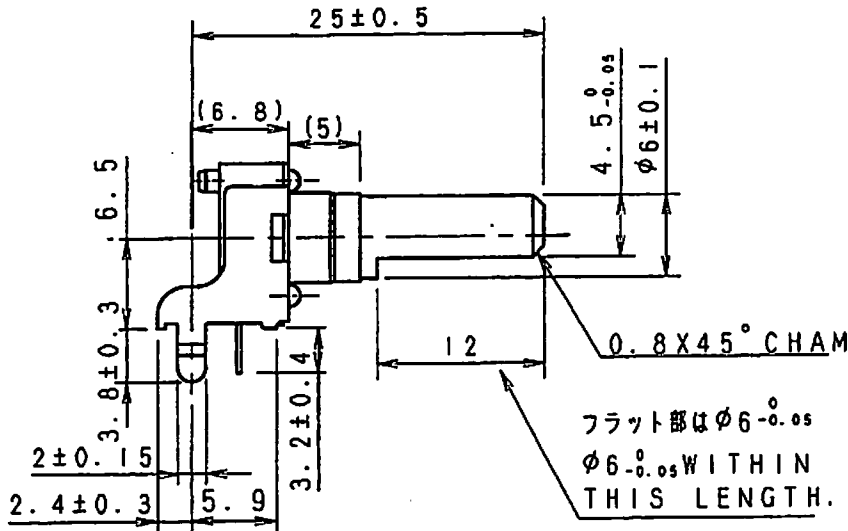
SYMB	DATE	APPD	CHKD	DSGD				
					APPD.	CHKD.	DSGD.	NAME
					Jan. 13, '93	Jan. 13, '93	Jan. 13, '93	RESISTANCE TAPER (A)
					K. Harami	K. Sasaki	K. Suzuki	DOCUMENT NO.
								W1011757M

AT 140° C. W. SHAFT ROTATION FROM FULL C. C. W. POSITION VOLTAGE PERCENT SHALL FALL WITHIN THE LIMITS OF 10~25 PERCENT.

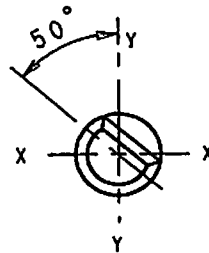
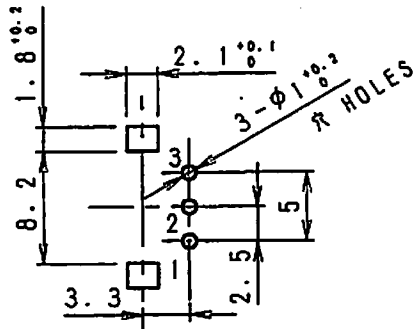


ALPS ELECTRIC CO., LTD  
1-7 YUKIGAYA OTSUKA-CHO OIA-KU TOKYO JAPAN





軸はセンター位置を示す。  
 SHAFT SHOWN IN  
 CENTER POSITION.



軸は反時計方向に回し切った状態を示す。  
 SHAFT SHOWN IN  
 FULL C. C. W. POSITION.

端子取付穴寸法図 (挿入側より見た図)  
 (許容差±0.1)  
 MOUNTING HOLE DETAIL  
 (TOLERANCE±0.1)  
 VIEWED FROM MOUNTING SIDE  
 板厚 t=1.6

製品重量: 1.7 g  
 NET WEIGHT

指定なき部分の許容差 TOLERANCES UNLESS OTHERWISE SPEC	
L ≤ 10	±0.3
10 < L < 100	±0.5
100 ≤ L	±0.8
角度 ANGULAR DIMENSION	±5'

PART NO.	NAME	MATERIAL NAME / CODE	FINISH
			SHAFT COLOR : BLACK (B)
<b>ALPS ELECTRIC CO., LTD.</b>			
		DSGD. 1-2411 Y. Saitoh 96-09-13	SCALE 2 : 1 W1011757M
		CHKD. M. Satoh 96-09-13	TITLE 9形1軸単連絶縁軸VR
		APPD. S. Aizawa 96-09-13	UNIT DOCUMENT NO. F24
SYMB	DATE	APPD	CHKD
			DSGD
			UNIT
			DOCUMENT NO.
			F24
			K091B0Z94