

Customer: ALPS EUROPE DISTRIBUTION

No. AD-2008-9487

Date: Oct. 24, 2008

Attention:

Your ref. No.:

Your Part No.: RK097111030X

SPECIFICATIONS

ALPS' ;

MODEL: RK097111030X
(10kB)

Spec. No.:

Sample No.: F 6 8 0 8 3 5 9 M

RECEIPT STATUS

RECEIVED

By Date

Signature

Name

Title

ALPS[®]
ALPS ELECTRIC CO., LTD.

DSG'D

M. Sato

APP'D

S. Sato

ENG. DEPT. DIVISION

Sales

Head Office
1-7, Yukigaya-otsuka-cho, Ota-ku, Tokyo, 145-8501 Japan
Phone,+81(3)3726-1211

B6523

Q1003#03A (EA)

S P E C I F I C A T I O N S

1. THIS SPECIFICATIONS APPLY TO RK097111030X POTENTIOMETER.

2. CONTENTS OF THIS SPECIFICATIONS.

F6808359M

K091K003W

3. MARKING

- MARKING ON ALL UNITS

DATE CODE, RESIST. VALUE, TAPER

4. REMARKS

- FURNISH PACKAGE

NUT:1 WASHER:1

- CAUTION

There is a possibility that might be affected by contact resistance of resistive element and wiper in case of low impedance of output side in voltage regulation circuit.

For this reason, we require that you adjust to impedance of output side more than 100 times of total resistance.

Regardless of the suggested applications of these products being introduced in the specifications, when using them for equipment and devices requiring a high degree of safety, respective manufacturers will please preserve safety of the planned equipment and devices by providing necessary protective circuits and redundancy circuits and reconfirm if safety is being duly preserved.

This product has been designed and manufactured for general electronic devices, visual devices, home electronics, information devices and communication devices. In case this product is used for more sophisticated equipment requiring higher safety and reliability, such as life support system, space & aviation devices, disaster prevention & security system, please make verification of conformity or check on us for the details.

It is prohibited to use this product for flight control purposes in avionics applications.

Although we are exerting our best efforts to maintain the quality of these products, we cannot guarantee that they will never cause short circuiting and open circuitry.

Therefore, when designing an equipment or device with which the priority is given to the safety, you will please carefully study the influences to the whole equipment of a single function failure of Potentiometers and Encoders in advance to make out a fail-safe design providing.

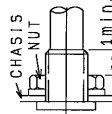
<Storage>

- 1) Store the products as delivered, at a normal temperature and humidity, without direct sunshine and corrosive gas ambient.

Use them at an earliest possible timing, not later than six months upon receipt.

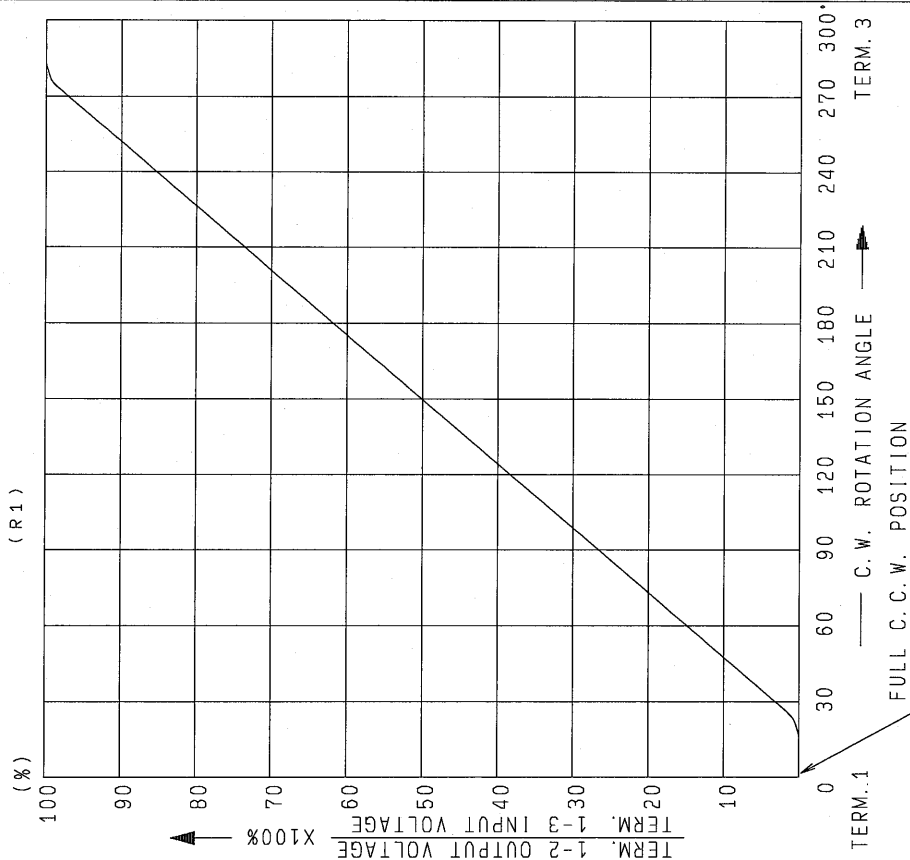
- 2) After breaking the seal, keep the products in a plastic bag to shut out ambient air, store them in the same environment as above, and use them up as soon as possible.
- 3) Do not stack too many cartons.

ELECTRICAL		Single shaft (R1)	
1. Total resistance:	10 k \pm 20%		
2. Rated power:	0.05W		
3. Rated voltage:	Please refer to the attached.		
4. Resistance taper:	Please refer to the attached.		
5. Tap position:			
6. Tap resistance between terminals:			
7. Residual resistance between terminals:	1&2, 2&3 : 20 Ω max.		
8. Sliding noise : (Measured by JIS C 6443)	Less than 100mv		
9. Insulation resistance :	More than 100 M Ω at 250V D.C.		
10. Withstand voltage:	300V A.C. for 1 minute.		
11. Gang error :			
12. switch rating:(Resistor load)			
13. Switch contact resistance:			
14. Circuit:			
MECHANICAL			
1. Total rotational angle :	300 $^{\circ}$ \pm 5 $^{\circ}$		
2. Rotational torque: (Rotational speed 60 $^{\circ}$ /sec.)	2~25mN \cdot m.		
3. Stopper strength :	No damage with an application of 0.5N \cdot m min.		
4. Resistance to soldering heat :	Please refer to the attached.		
5. Bushing nut tightening strength :	Tightening torque to be no greater than 1N \cdot m. *Pay attention otherwise the strength may not be assured		
6. Push / pull strength :	No damages with an application of Push or pull force 100N for 10 sec.		
7. Shaft wobble : (Apply the moment of 50mN \cdot m at the point of 30mm from mounting surface)	0.4 XL/30mm p-p max. (L: Shaft length) (If the shaft length is less than 30mm, the value shall be calculated proportionally.)		
8. Operation force of shaft:			
9. Click position :			
10. Click torque:			
11. Rotation play at the click position:			
12. Contact arrangement :			
13. Switching angle :			
14. Switch operation torque :			
ENDURANCE			
1. Rotational life :	More than 15,000 cycles.		
NOTES			
1. The items except above mentioned items shall meet or exceed JIS C 6443.			
2. This type is protected against sulfides.			
3. Operating temperature range : -20 $^{\circ}$ C to +70 $^{\circ}$ C			
4. Storage temperature range : -40 $^{\circ}$ C to +85 $^{\circ}$ C			
ALPS ELECTRIC CO., LTD.		TITLE	
		SPECIFICATIONS	
		SYMB	DATE
		APPD	CHKD
		DSGD	DSGD
		APPD.	CHKD.
		May. 05. '94	May. 05. '94
		P. ARAI	M. ENDO
		T. Yamaguchi	
		DSGD.	No.
		F 6 8 0 8 3 5 9 M	





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



AT150° C.W. SHAFT ROTATION FROM FULL C.C.W. POSITION VOLTAGE PERCENT SHALL FALL WITHIN THE LIMITS OF 40-60 PERCENT.

SYMB	DATE	APPD	CHKD	DSGD	APPD.	CHKD.	DSGD.	NAME
					May. 23, '94	May. 23, '94	May. 23, '94	K09-B01
					K. Nagami	S. Sasai	K. Suzuki	RESISTANCE TAPER
								DOCUMENT NO. F 6808359M

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 (a)
Maximum working voltage : 50 V A.C., 10 V D.C.

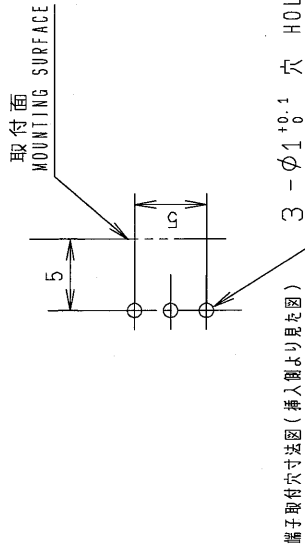
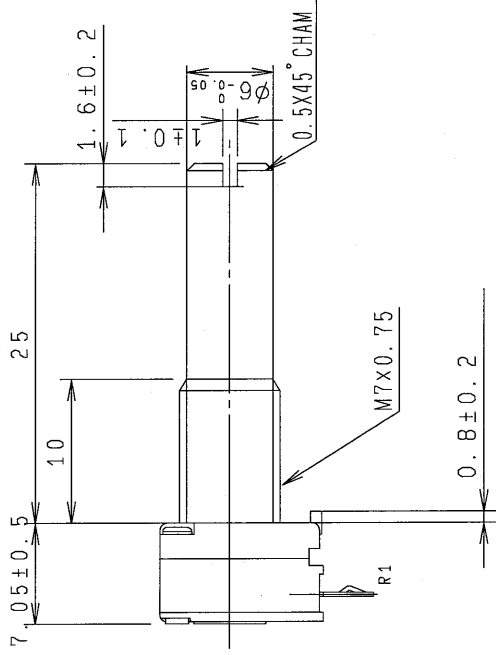
Resistance to soldering heat
There shall be no evidence of poor contact between resistance element and terminals, or any physical damages as a result of soldering.

- DIP soldering
Condition of soldering :
Soldering shall be certified with following condition.
Substrate to be soldered :
Copper clad laminated phenol board in one surface of 1.6 mm thickness.
Solder flux :
Flux of 0.82 specific weight in bubbling type solder
Fluxcoating apparatus shall be used and bubbling surface height shall be defined substantially as half thickness of substrate.
Flux shall not flow up on substrate surface.
Preheating :
Surface temperature of substrate shall be settled within 100°C in 2 minutes.
Dip soldering :
To be performed in 260±5°C, 5±1 sec.

- Please use the above process only 1 or 2 times.
- Manual soldering
To be performed in 3 seconds within 350°C.

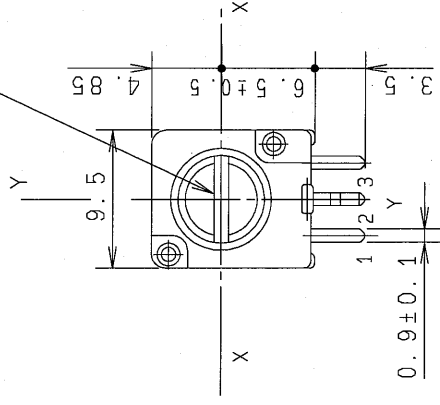
SYMB	DATE	APPD	CHKD	DSGD	APPD.	CHKD.	DSGD.	NAME
					May. 23, '94	May. 23, '94	May. 23, '94	M. ENDO
					R. ARAKAWA	M. ENDO	T. YAMAGUCHI	DOCUMENT NO.

NOTES
 BUSHING MATERIAL ----- ZINC ALLOY DIE CASTING
 SHAFT MATERIAL ----- ALUMINUM

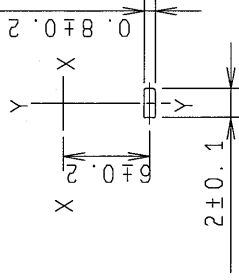


端子取付穴寸法図(挿入側より見た図) 3- $\phi 1.0^{+0.1}$ 穴 HOLES
 (許容差 ± 0.1) 重量 4.8g
 MOUNTING HOLE DETAIL
 (TOLERANCE ± 0.1)
 VIEWED FROM
 MOUNTING SIDE

SHAFT SLOT IS OPTIONAL ANGLE
 入り割角度は任意とする。



LOCATING LUG DETAIL
 シャフト止の詳細図



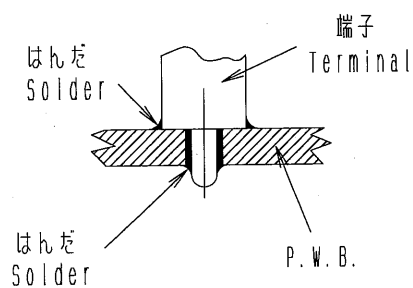
指定公差部分の許容差 TOLERANCES UNLESS OTHERWISE SPEC		L ≤ 10	±0.3
		10 < L < 100	±0.5
角 度		100 ≤ L	±0.8
ANGULAR DIMENSION		±5°	
SYMB	DATE	APPD	CHKD
DSGN. 第1製品部 設計1課	'94-05-23	SCALE	F6808359M
CHKD.	'94-05-23	TITLE	9形1軸準速 VR 組立図
APPD.	'94-05-23	UNIT	m m
DATE	'94-05-23	DOCUMENT NO.	K091K003W
ALPS ELECTRIC CO., LTD.			

< はんだ付け時の注意事項 >

図のようにP.W.B.の上面に はんだ付けをする配線は、お避け下さい。

Caution for soldering

Please avoid soldering on upper surface of P.W.B. as shown



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					APPD.	CHKD.	DSGD.	TITLE
					Apr. 14, '93	Apr. 14, '93	Apr. 14, '93	F 6808359M
					S. Aizawa	M. Satoh	Y. Saitoh	DOCUMENT NO.
SYMB	DATE	APPD	CHKD	DSGD				