

Customer:

No. K272006-0950

Date: Nov. 06, 2006

Attention:

Your ref. No.:

Your Part No.:

# SPECIFICATIONS

ALPS' ;

MODEL: RK27112A0  
( 1MD X2 )

Spec. No.:

Sample No.: F 3 5 0 9 7 8 4 M

RECEIPT STATUS
RECEIVED
By Date _____
Signature _____
Name _____
Title _____



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

DSG'D *Y. Ohya*

APP'D *S. Ikenoue*

ENG. DEPT. DIVISION

Sales

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

1. THIS SPECIFICATIONS APPLY TO RK27112A0 POTENTIOMETER.

2. CONTENTS OF THIS SPECIFICATIONS.

5K272A000J

K272A000F

4K-1

3. MARKING

• MARKING ON ALL UNITS

EIA DATE CODE, RESIST. VALUE, TAPER

4. REMARKS

• FURNISH PACKAGE

NUT:1 WASHER:1

• CAUTION

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.

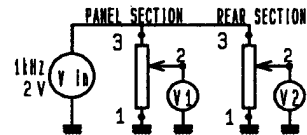
Products being introduced in the specifications have been designed and manufactured for applications to ordinary electronic equipment and devices such as the AV equipment, electric home appliances, office machines and communications equipment. Consequently, when employing these products for applications requiring a high degree of safety and reliability such as the medical equipment, aviation and aircraft equipment, space equipment and burglar alarm equipment, the using manufacturers will please thoroughly study the proprieties of these products for the planned 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.

# SPECIFICATIONS

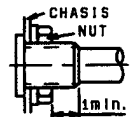
## ELECTRICAL

1. Total resistance  $1\text{ M}\Omega \pm 30\%$
2. Rated voltage  $30\text{V A.C.}$   
This potentiometer is desinged for A.C. voltage only.
3. Resistance taper:  $D$  (HSD02)
4. Maximum attenuation level on full C.C.W. position :  $100\text{ dB min.}$
5. Insertion loss on full C.W. position :  $0.1\text{ dB max.}$
6. Sliding noise :  $\text{Less than } 47\text{mV}$  (Measured by JIS C 6443)  
(Neglected a impulsive noise at the C.W. and C.C.W. ends of position.)
7. Insulation resistance :  $\text{More than } 100\text{ M}\Omega$  at  $500\text{V D.C.}$
8. Dielectric strength : Units shall be designed to withstand  $500\text{V A.C.}$   
 $50\text{Hz R.M.S.}$  between resistance element and case for a period of 1 minute without damage or arcing.
9. Gang error :  $5\text{dB max. between } -80$  less than  $-70\text{ dB}$   
Measure between  $3\text{dB max. between } -70$  to  $0\text{ dB}$   
(R1&R2)



## MECHANICAL

1. Total rotational angle  $300^\circ \pm 3^\circ$
2. Rotational torque  $8 - 35\text{ mN}\cdot\text{m}$  (Rotational speed  $60^\circ/\text{sec.}$  at  $20^\circ\text{C}$ )
3. Stopper strength  $\text{No damage with an application of } 0.9\text{ N}\cdot\text{m.}$
4. Resistance to soldering heat  
After soldering (Less than  $350^\circ\text{C}$  and within 5 s.) there shall be no evidence of poor contact between resistance element and terminals, or any physical damage as a result of the test.
5. Bushing nut tightening strength Tightening torque to be no greater than  $1.5\text{ N}\cdot\text{m.}$   
\*Pay attention otherwise the strength may not be assured.
6. Push / pull strength  $\text{No damages with an application of push or pull force } 100\text{ N}$  for 10 s.



## ENDURANCE

1. Rotational life :  $15,000\text{ cycles min.}$

## NOTES

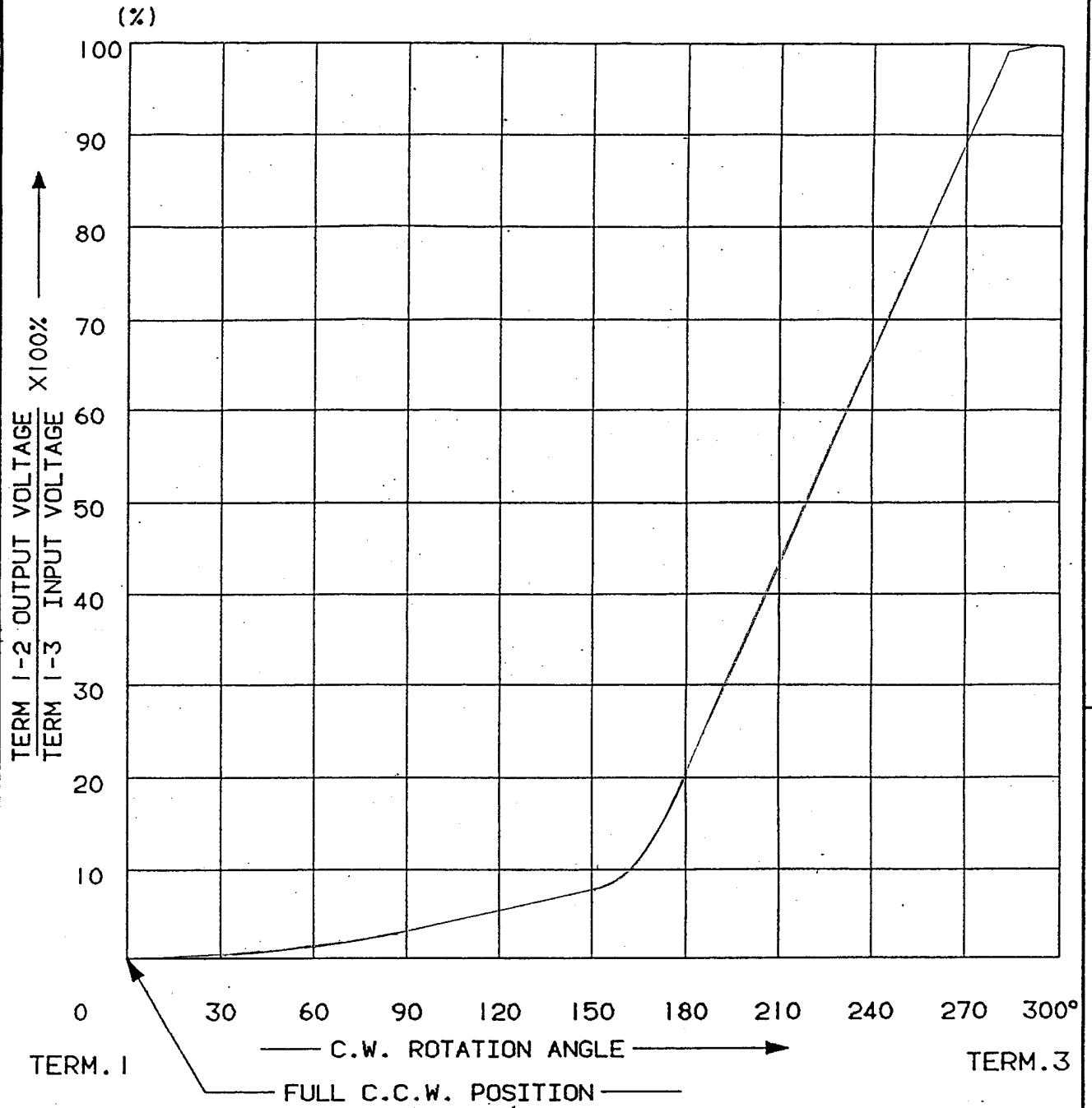
1. The items except above mentioned items shall meet or exceed JIS C 6443.
2. Operating temperature:  $-10^\circ\text{C} \sim +70^\circ\text{C}$
3. Storage temperature:  $-20^\circ\text{C} \sim +80^\circ\text{C}$
4. This type is protected against sulfides.

<b>ALPS ELECTRIC CO., LTD.</b>											
SYMB	DATE	APPD	CHKD	DSGD	APPD	CHKD.	DSGD.	TITLE			
					DESIGN 06.11.16 IKENOUE	DESIGN 06.11.16 Y.OHYA				DOCUMENT NO.	
											5K272A000J



# ALPS ELECTRIC CO., LTD

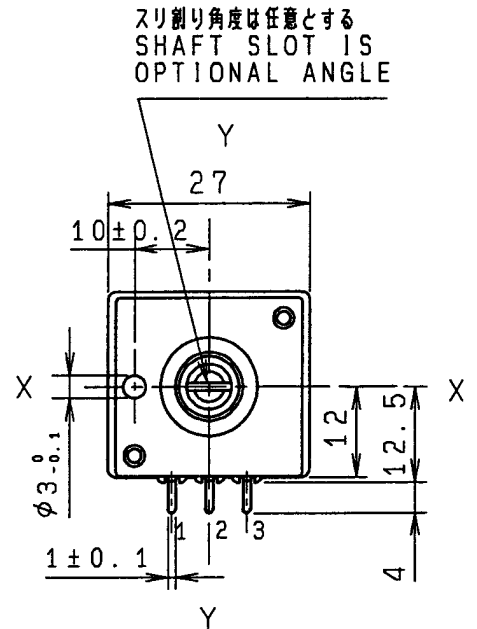
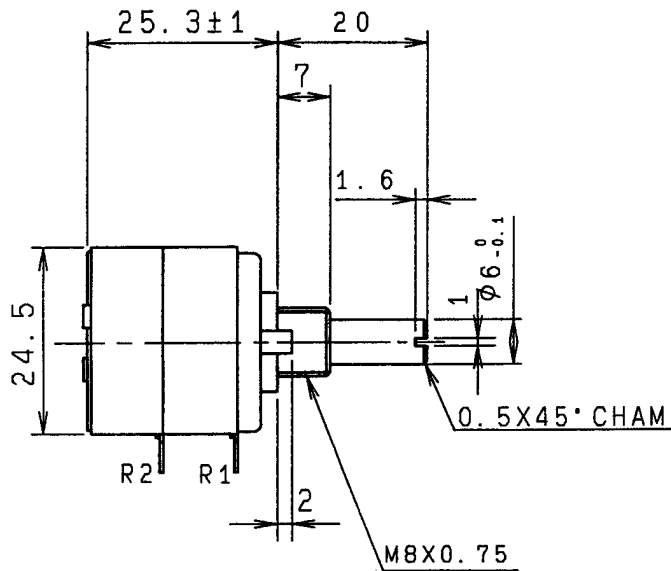
1-7 YUKIGAYA OTSUKA-CHO OTA-KU TOKYO JAPAN



AT 150° C.W. SHAFT ROTATION FROM FULL C.C.W. POSITION, VOLTAGE PERCENT SHALL FALL WITHIN THE LIMITS OF 2 - 15 PERCENT.

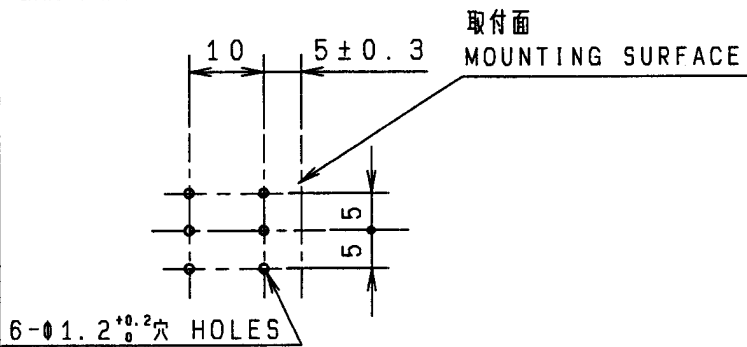
				DSGD <i>K. Chonan Jan. 22 '96</i>	SCALE	
				CHKD. <i>N. Sasaki Jan. 22 '96</i>		TITLE RESISTANCE TAPER
Original	82-05-27	S.S.	A.S.	APPD. <i>Y. Ohno Jan. 22 '96</i>	UNIT m m	DOCUMENT NO. HSD02
SYMB	DATE	APPD	CHKD	DSGD		

OR

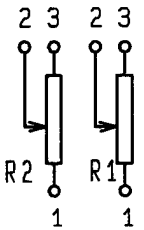


取付穴寸法図 許容差±0.1  
(挿入側から見た図)

P. W. B. MOUNTING DETAIL  
TOLERANCE±0.1  
VIEWED FROM MOUNTING SIDE



(回路図)  
CIRCUIT



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

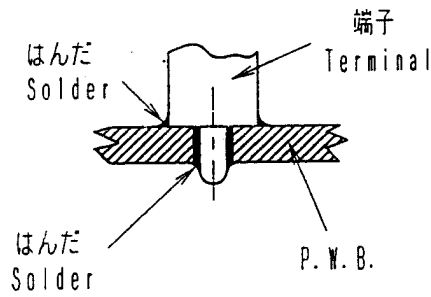
PART NO.	NAME	MATERIAL NAME / CODE	FINISH
<b>ALPS ELECTRIC CO., LTD.</b>			
		DSGD. セツケ11 Y. SAITOH 96-12-10	SCALE 1:1
		CHKD. Y. OHYA 96-12-10	NO. F3509784M
		APPD. M. SATOH 96-12-10	TITLE 27形1軸2連VR組立図
SYMB	DATE	APPD	DOCUMENT NO. K272A000F

< はんだ付け時のご注意事項 >

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



					<b>ALPS ALPS ELECTRIC CO., LTD.</b>			
					APPRO	CHKD.	DSGD.	TITLE
					1-監1 '96.1.11 吉岡	1-監1 '96.1.11 佐藤	1-監1 '96.1.11 大矢	
SYMB	DATE	APPD	CHKD	DSGD	DOCUMENT NO.			4K-1