

Customer: ALPS EUROPE DISTRIBUTION

No. FX-2007-8463

Date: May. 28, 2007

Attention:

Your ref. No.: RK11K114-F32-C0-A103

Your Part No.: RK11K114

SPECIFICATIONS

ALPS' ;

MODEL: RK11K1140A5L
(10k A)

Spec. No.:

Sample No.: F 4 2 1 4 2 7 3 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 RK11K1140A5L POTENTIOMETER.

2. CONTENTS OF THIS SPECIFICATIONS.

F4214273M

K111HOZ22

3. MARKING

• MARKING ON ALL UNITS

DATE CODE, RESIST. VALUE, TAPER

4. REMARKS

• FURNISH PACKAGE

NUT:0 WASHER:0

• NOTES

• 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, alkyl hydrocarbon, etc.

• 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.

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

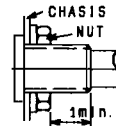
1. Total resistance : 10k $\Omega \pm 20\%$
2. Rated power : 0.05 W
3. Rated voltage :
 The rated voltage shall be the voltage of D.C. or A.C. (commercial frequency, effective value) corresponding to the rated power (dissipation), and be obtained from the following formula. When the obtained rated voltage 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 (Ω)
 Maximum working voltage : 50 V A.C. , 20 V D.C.
4. Resistance taper : A
5. Residual resistance between term. 1&2, 2&3 : 20 Ω max.

6. Sliding noise : Less than 100 mV. (Measured by JIS C 6443)
7. Insulation resistance : More than 100 M Ω at 500V D.C.
8. Withstand voltage: 500V A.C. for one minute.

MECHANICAL

1. Total rotational angle : 300° $\pm 5^\circ$
2. Rotational torque : 3~20 mN·m (Rotational speed 60°/sec.)
3. Resistance to soldering heat :
 After soldering (Less than 350°C and within 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.
4. Stopper strength : No damage with an application of 0.6 N·m.
5. Robustness after soldering resistor shaft against end thrust and pull force :
 With the potentiometer mounted, no damage with 80N of push and pull force.
6. Robustness at shaft against side thrust :
 With the potentiometer mounted, no damage with 30N of thrust force to the shaft top.
7. Shaft play :
 After installing the potentiometer, the resistor shall be mounted by soldering the mounting legs on the panel. When a side thrust of 50mN·m shall be applied at the end of the shaft, the total shaft play shall not exceed 0.7XL/30 mm p-p.
 (L: Shaft length)
8. Bushing nut tightening strength : Tightening torque to be no greater than 1N·m.
 Pay attention otherwise the strength may not be assured.



ENDURANCE

1. Rotational life : 15,000 cycles min.

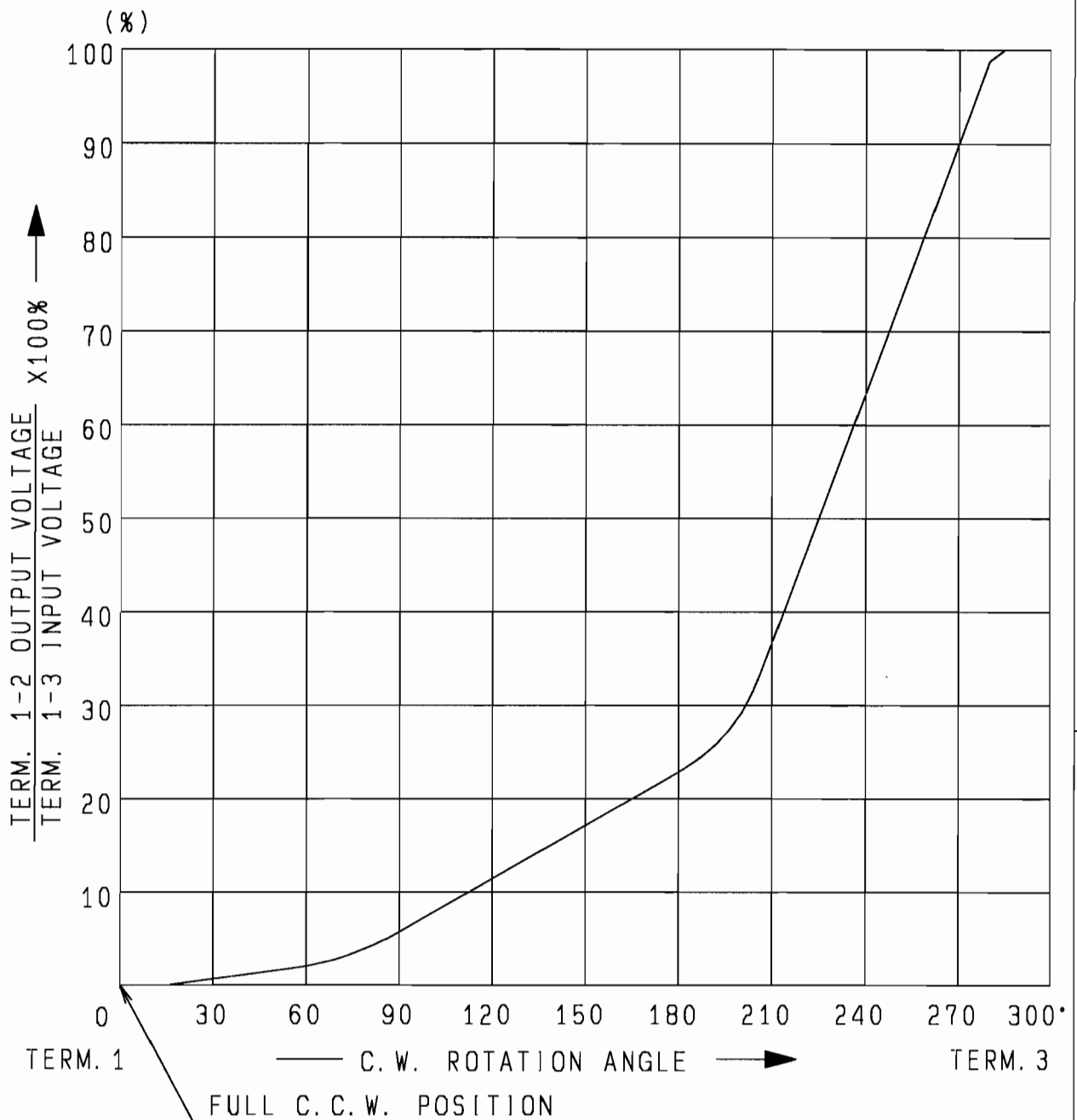
NOTE

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

ALPS ELECTRIC CO., LTD.										
					APPD.	CHKD.	DSGD.	TITLE		
					oct. 01. '92	oct. 01. '92	oct. 01. '92	F 4 2 1 4 2 7 3 M		
					S. Aizawa	M. Satoh	S. Sugawara	DOCUMENT NO.		
SYMB	DATE	APPD	CHKD	DSGD						

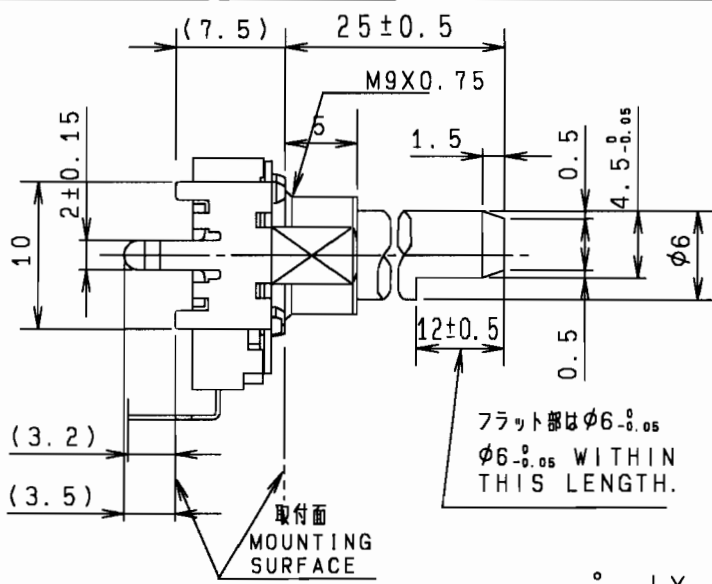


ALPS ELECTRIC CO., LTD
1-7 YUKIGAYA OTSUKA-CHO OTA-KU TOKYO JAPAN

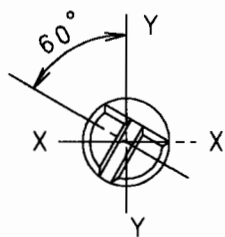
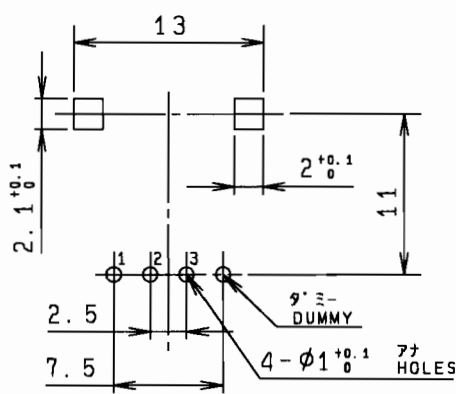


AT 150° C.W. SHAFT ROTATION FROM FULL C.C.W. POSITION VOLTAGE PERCENT SHALL FALL WITHIN THE LIMITS OF 10~25 PERCENT.

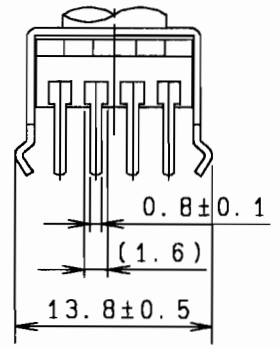
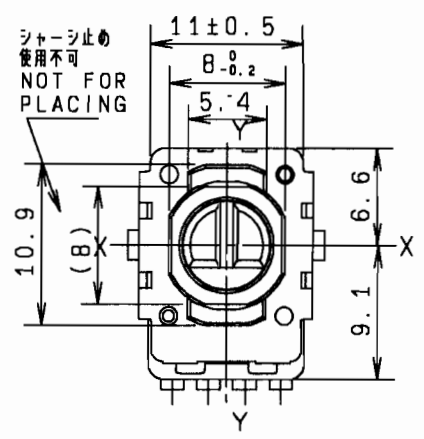
					APPD.	CHKD.	DSGD.	NAME	A
					may. 27. '92	may. 27. '92	may. 27. '92	RESISTANCE TAPER	
					M. Inoue	K. Magami	S. Sasaki	DOCUMENT NO.	
SYMB	DATE	APPD	CHKD	DSGD				F4214273M	



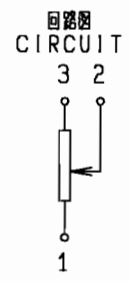
取付寸法図 (公差±0.1)
 *挿入側からみえ図
 P. W. B. MOUNTING DETAIL
 (TOLERANCE±0.1)
 VIEWED FROM MOUNTING SIDE



P. W. B. 板厚 T=1.6



軸はセンター位置又はセンタークリック位置を示す
 SHAFT SHOWN IN CENTER POSITION OR CENTER CLICK POSITION.



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°

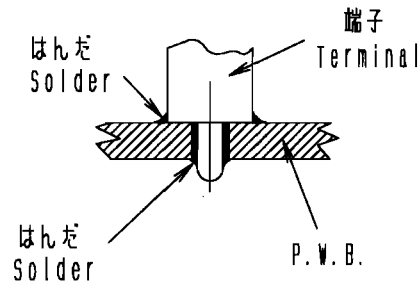
PART NO.	NAME	MATERIAL NAME / CODE	FINISH
ALPS ELECTRIC CO., LTD.			
		DSGD. 1-設計1番 Y. SAITOH '94-07-20	SCALE 2 : 1
		CHKD. M. SATOH '94-07-20	NO. F4214273M
		APPD. R. ARASAWA '94-07-20	TITLE FIGURE 11形単速絶縁軸ボリュ-4組立図
SYMB	DATE	APPD	UNIT mm
		CHKD	DOCUMENT NO. K111H0Z22
		DSGD	F03

< 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



					ALPS ELECTRIC CO., LTD.			
					APPD.	CHKD.	DSGD.	TITLE
					<i>Apr. 14, '93</i>	<i>Apr. 14, '93</i>	<i>Apr. 14, '93</i>	F 4 2 1 4 2 7 3 M
					<i>S. Aizawa</i>	<i>M. Satoh</i>	<i>Y. Saitoh</i>	DOCUMENT NO.
SYMB	DATE	APPD	CHKD	DSGD				