

Customer: ALPS EUROPE DISTRIBUTION

No. KK-2006-2258

Date: Nov. 14, 2006

Attention:

Your ref. No.:

Your Part No.: RK16816MGA0A

SPECIFICATIONS

ALPS';

MODEL: RK16816MGA0A
(10kDX6)

Spec. No.:

Sample No.: F 3 5 4 0 3 6 3 M

RECEIPT STATUS

RECEIVED

By Date

Signature

Name

Title

ALPS
ALPS ELECTRIC CO., LTD.

Head Office

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

DSG'D

G. Ashida

APP'D

G. Ohya

ENG. DEPT. DIVISION

Sales

B6523

Q1003#03A (EA)

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

1. THIS SPECIFICATIONS APPLY TO RK16816MGA0A POTENTIOMETER.

2. CONTENTS OF THIS SPECIFICATIONS.

5K166FMG007, 4K16M-2

K166FMG03A

3. MARKING

- MARKING ON ALL UNITS

DATE CODE, RESIST. VALUE, TAPER

4. REMARKS

- FURNISH PACKAGE

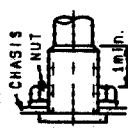
NUT:1 WASHER:1

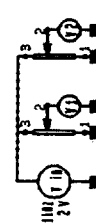
• CAUTION

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.

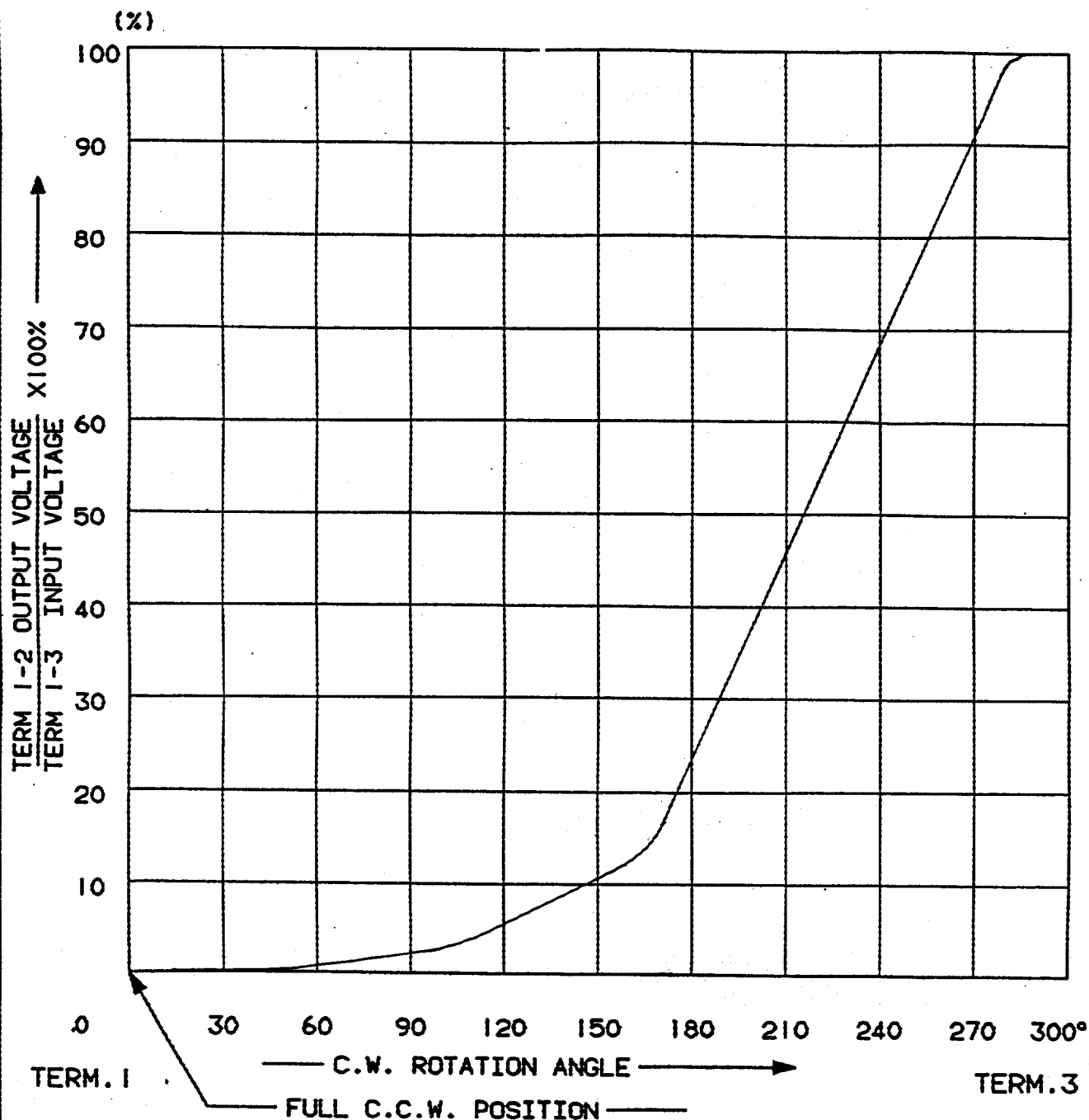
SPECIFICATIONS																					
Feature This is a potentiometer with D.C. magnet motor and it is adjustable by both manual shaft and motor. Temperature for operating and storage 1. Dimensions : See attached drawing. 2. Operating temperature : -10°C ~ +70°C 3. Storage temperature : -20°C ~ +80°C 4. Motor : D.C. magnet motor (With 6V Disk Varistor) Mechanical specifications. 1. Operation : Manual operation and motor drive. 2. Total rotational angle : 300°±5° 3. Rotational speed : 1213 sec/300° (at 4.5V D.C. applied to motor.) 4. Direction of rotation : C.W. rotation at normal polarity. (When the potentiometer is looked at from the shaft side.) 5. Mechanical noise : Continuous, monotonous, not unpleasant sound to heard. To be mutually discussed when questionable. (at 4.5V D.C. applied to motor) 6. Rotational torque : 10~40mN-m (Rotational speed 60°/sec.) 7. Stopper strength of shaft With manual operation : No damage with an application of 0.9N-m. With motor drive : Shaft must be slipped at the both ends of manual rotation. 8. Bushing nut tightening strength : Tightening torque to be no greater than 1.2N-m. (Pay attention otherwise the strength may not be assured.) 9. Push / pull strength : No damages with an application of push or pull force 100N for 10 sec. 10. Resistance to soldering heat : After soldering there shall be no evidence of poor contact between resistance element and terminals, or any physical damages as a result of the test. The terminal of the potentiometer less than 300°C and within 3 sec. The terminal of the motor less than 350°C and within 2 sec.																					
																					
ALPS ELECTRIC CO., LTD.																					
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SPECIFICATIONS																					
Electrical specifications (R1-R6) 1. Total resistance : 10kΩ ±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 : 50V A.C. (This potentiometer is designed for A.C. voltage only). 4. Resistance taper : See (T-K16WG-001) 5. Residual resistance between terminals : 1±2 : 30Ω max. 2±3 : 30Ω max. 6. Sliding noise : Less than 100mV. (Measured by JIS C 6443) 7. Gang error : 2 dB max. at 150° (R1-R2)(R3-R4)(R5-R6) 8. Insulation resistance Potentiometer section : More than 100 MΩ at 250V D.C. Motor section : More than 1 MΩ at 100V D.C. 9. Withstand voltage Potentiometer section : 300V A.C. for 1 minute. 10. Supply voltage for motor : 4~6V D.C. 11. Rated voltage for motor : 4.5V D.C. 12. Motor current (at 4.5V D.C. applied to motor) Normal operation : 100mA max. Slipping operation : 150mA max. at both ends Endurance specifications 1. Rotational life : 15,000 cycles min.																					
																					
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OR

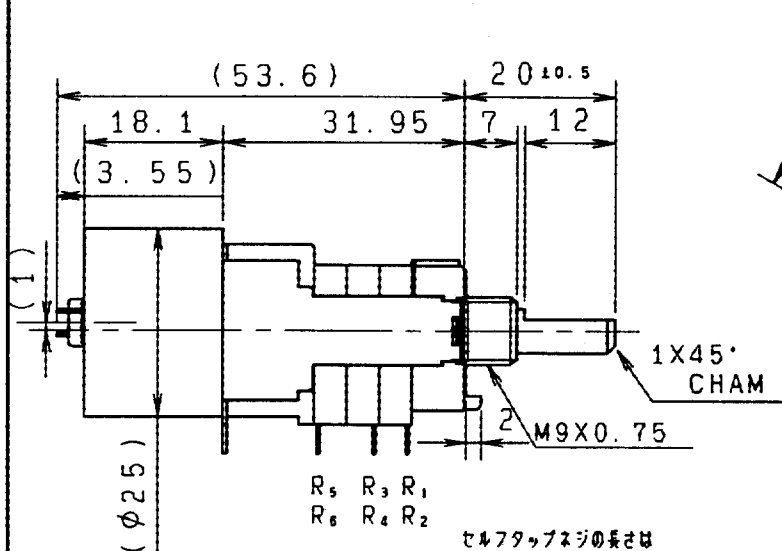


ALPS ELECTRIC CO., LTD
1-7 YUKIGAYA OTSUKA-CHO OTA-KU TOKYO JAPAN



AT 150° C.W. SHAFT ROTATION FROM FULL C.C.W. POSITION, VOLTAGE PERCENT SHALL FALL WITHIN THE LIMITS OF 6~15 PERCENT.

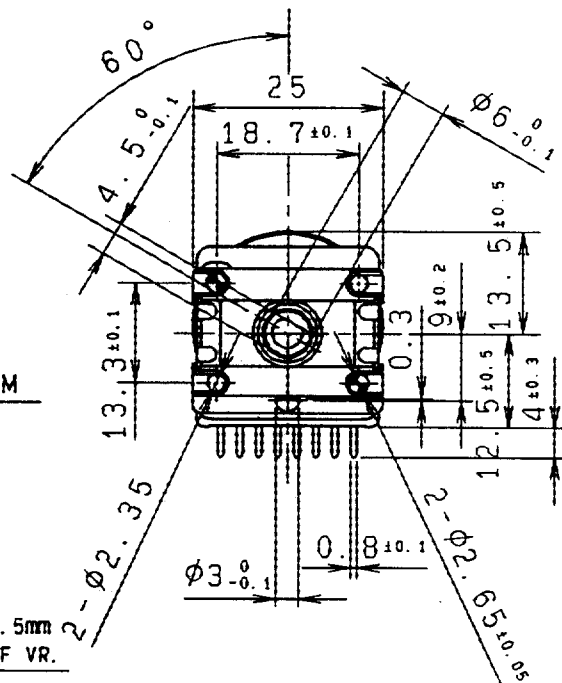
				DSGD	SCALE	
				<i>T. Shioya Oct. 16'89</i>		
				CHKD.		TITLE
				<i>K. Magami Oct. 16'89</i>		RESISTANCE TAPER
				APPD.	UNIT	DOCUMENT NO.
				<i>M. Inoue Oct 17'89</i>	m m	T-K16MG-D01
SYMB	DATE	APPD	CHKD	DSGD		



セルフタッピングネジの長さは
取付面より6.5mm以下のこと
LENGTH OF SELF-TAPPING
SCREW SHALL BE WITHIN 6.5mm
FROM MOUNTING SURFACE OF VR.

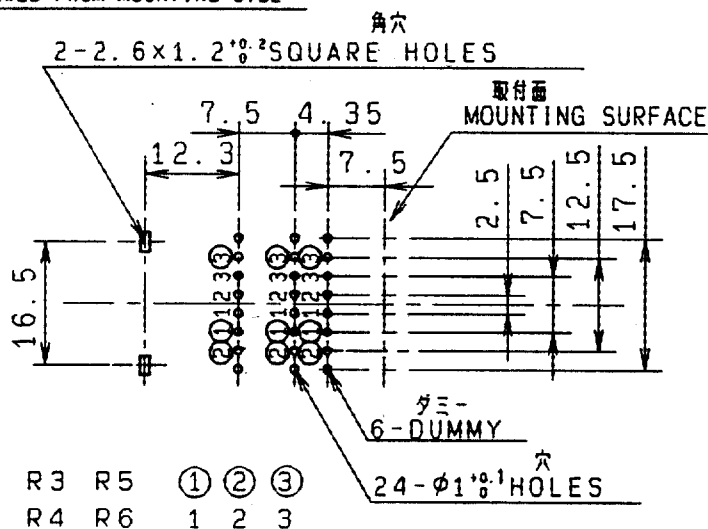
取付穴寸法図 許容差±0.1
(挿入側から見た図)

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

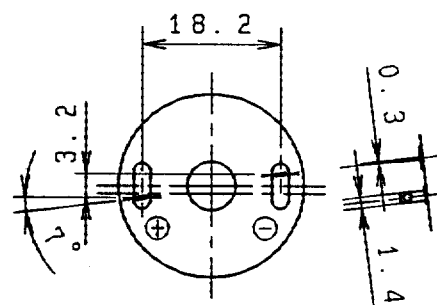


上図は軸を反時計方向に
回し切った状態を示す

SHAFT SHOWN
IN FULL CCW POSITION

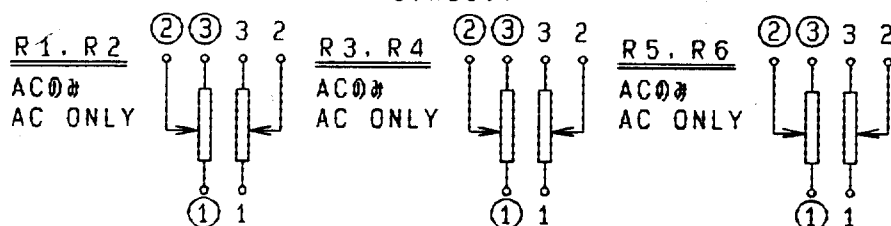


R1 R3 R5 ① ② ③
R2 R4 R6 1 2 3



モータ背面図
BACK VIEW

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		IT 独立 シールドケース付	
ALPS ELECTRIC CO., LTD.									
DSGN.		Y. ASHIDA		2001-11-17		SCALE		1 : 1	
CHKD.		Y. SAITO		2001-11-17		TITLE		1 軸 6 連 照 光 無 し モータ駆動ボリュウム組立図	
APPD.		Y. Ohya		2001-11-19		UNIT		DOCUMENT NO.	
SYMB	DATE	APPD	CHKD	DSGD	mm		K166FMG03A		