Customer: ALPS EUROPE DISTRIBUTION

Attention:

Your ref. No.:

Your Part No.: RK16812MG 8036

No. GM-2006-1270

Date: Aug. 23, 2006

SPECIFICATIONS

ALPS';

MODEL: RK16812MG

(100kD X2)

Spec. No.:

Sample No.: F 3 3 5 1 6 9 2 M

RECEIVED
By Date
Signature
Name
Title



DSG'D

APP'D

ENG. DEPT. DIVISION

Head Office

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

Sales

SPECIFICATIONS

- 1. THIS SPECIFICATIONS APPLY TO RK16812MG POTENTIOMETER.
- 2. CONTENTS OF THIS SPECIFICATIONS. F3351692M K162FMG03₽
- 3. MARKING
 - MARKING ON ALL UNITS EIA DATE CODE, RESIST. VALUE, TAPER
- 4. REMARKS
 - FURNUSH 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

This is a potentiometer with D.C. magnet motor and it is adjustable by both manual shaft and motor.

remperature for operating and storage 1. Dimensions :See attached drawing.

:-10°C ~ +70°C :-20°C ~ +80°C

1. Dimensions :See atta 2. Operating temperature 3. Storage temperature 4. Motor

(With 6V Disk Varistor) :D.C. magnet motor

: Manual operation and motor drive. : 300°±5°. :12±3 sec/300° Mechanical specifications.
1. Operation
2. Total rotational angle
3. Rotational speed

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)

10~40mN·m (Rotational speed 60'/sec.) Rotational torque

7. Stopper strength of shaft With manual operation With motor drive

No damage with an application of 0.9N·m. 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.

CHASIS (Pay attention otherwise the strength may not be assured.)



No damages with an application of push or pull force 100N for 10 sec. 9. Push / pull strength

After soldering there shall be no evidence of poor contact between resistance element and terminals, or any physical damages 10. Resistance to soldering heat

as a result of the test.

The terminal of the potentlometer 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. F3351692M DOCUMENT NO. RK168 NOY. 08, '93 NOY. 08, '93 NOV. 08, '93 r. Saitoh S. Aizawa M. Satoh APPD.

SPECIFICATIONS

Electrical specifications

100ka ±20% 0.05 W 1. Total resistance 2. Rated power

3. Rated voltage:

The rated voltage shall be the voltage of D.C. or A.C.

The rated voltage shall be the voltage of D.C. or A.C.

Toommercial frequency. effective value) corresponding to the rated power (alssipation), 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......

he rated voltage.

Where Ε = YP.R (V)

Where Ε = Rated voltage (V)

P = Rated power(dissipation) (W)

P = Rated power(dissipation) (W)

R = Nominal total resistance (Δ)

R = Nominal total resistance (Δ)

Maximum working voltage = 50V A.C.

(This potentiometer is designed for A.C. voltge only).

4. Resistance taper

90 d8 min. 5.Maximum attenuation level at full C.C.W. position : q_0 d 6.Insertion loss at full .C.W.position : 0.1dB max. 7.Silding noise : Less than 100mV. (Measured by JIS C 6443)

between -60dB less than -40dB between -40dB \sim 0dB 5 dB max. 3 dB max. 8. Gang error

Potentiometer section : More than 100 Ma at 250V D.C. Motor section : More than 1 Ma at 100V D.C. 9. Insulation resistance

10 Withstand voltage
Potentiometer section: 300V A.C. for 1 minute.
11.Supply voltage for motor: 4~6V D.C.
12. Rated voltage for motor: 4.5V D.C.
13. Motor current (at 4.5V D.C. applied to motor)

150mA max. Silpping operation at both ends

100mA max.

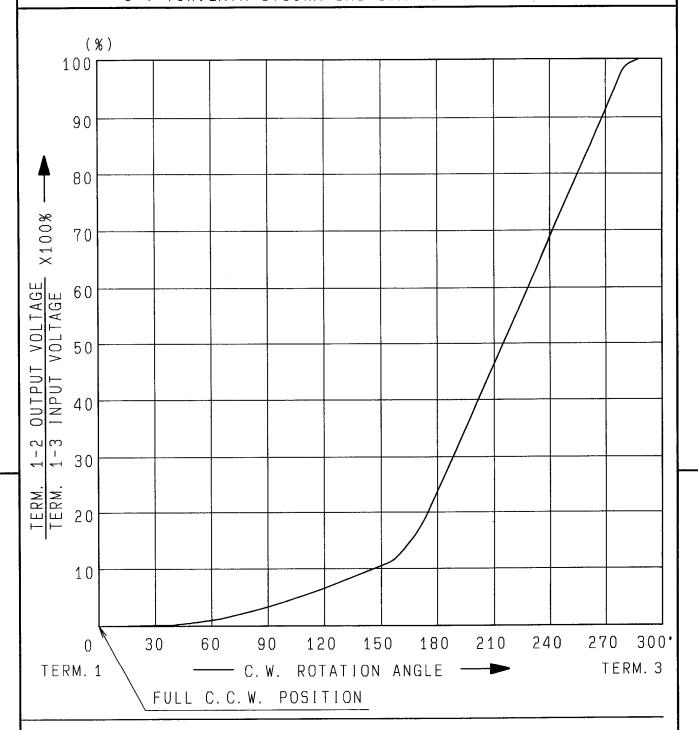
Normal operation

Endurance specifications 1.Rotational ilfe : 15,000 cycles min.

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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.

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SPECIFICATIONS

Note

- 1. The standard test shall be subject to temperature from 5°C to 35°C and relative humidity from 45% to 85%. Test shall be done under environmental requirements of a temperature of 20°±2°C and relative humidity of 65±5% if a decision is in question.
- 2. Notice on motor
 - 1). Motor terminals shall not be bent more than twice.
 - 2). Soldering to the motor terminals shall be within a few second, not to cause the transformation of terminal base plastics.

 And , avoid that the flux flows into the motor.

 Pay special attention to the terminals when they are wave soldered. If the flux flows into the motor, it may cause a poor contact.
 - 3). Motor terminal should not be pressed inside the motor. It may cause a poor contact in the motor.
 - 4). Pay attention that a piece of Iron and an alien substance are not crepted into the motor.
 - 5). In operation, temperature arround the motor produce an effect on the performance and life. Pay special attention in high temperature and humidity. Storage in high temperature and humidity, and in corrosive gas, shall be avoided.
 - 6). In case using the adhesive agent and the seal agent etc. for fit up, make sure that there is no generation of the harmful gas for motor. (Including all chemicals arround the motor.)
 Pay special attention to cyanogen system adhesive agent and organically system silicone.
- 3. Power supply.

 Regulated D. C. power supply shall be used.

 (ripple to be 1% max.) Motor terminal shall not be conected with fixed resistors in series. And supply current is to be 350mA min.
- 4. The items except above mentioned items shall meet or exceed JIS C 6443.

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