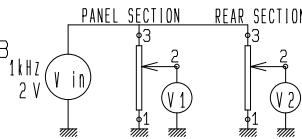
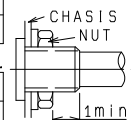


ELECTRICAL		Single shaft (R1, R2)																	
1.Total resistance:		10 kΩ± 20%																	
2.Rated power:		0.05W																	
3.Rated voltage:		Please refer to the attached.																	
4.Resistance taper:		Please refer to the attached.																	
5.Tap position:																			
6.Tap resistance between terminals:																			
7.Residual resistance between terminals:		1&2,2&3 : 20Ω max.																	
8.Sliding noise : (Measured by JIS C 6443)		Less than 100mV																	
9. Insulation resistance :		More than 100 MΩ at 250V D.C.																	
10.Withstand voltage:		300V A.C. for 1 minute.																	
11.Gang error :		3 dB max. between -40dB less than 0dB																	
																			
12.switch rating:(Resistor load)																			
13.Switch contact resistance:																			
14.Circuit:																			
MECHANICAL																			
1.Total rotational angle :		300°±5°																	
2.Rotational torque: (Rotational speed 60°/sec.)		2~25mN·m.																	
3.Stopper strength :		No damage with an application of 0.5N·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·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·m at the point of 30mm from monting surface)		0.5 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 rengen : -20°C to +70°C																			
4.Storage temperature rengen : -40°C to +85°C																			
ALPSALPINE CO.,LTD.		TITLE SPECIFICATIONS										APPD. May. 05, '94 R.Arasawa		CHKD. May. 05, '94 M.Endo		DSGD. May. 05, '94 T.Yamaguti		No. RK0971220A14E7	
				SYMB		DATE		APPD		CHKD		DSGD							



Rated voltage :

The rated voltage shall be the voltage of (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 :

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.

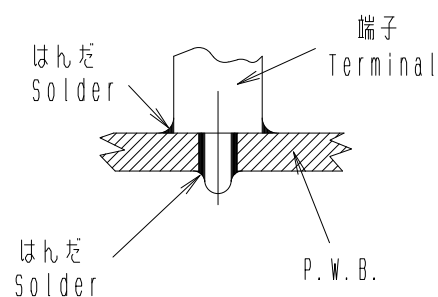
					APPD.	CHKD.	DSGD.	NAME
					May. 23, '94	May. 23, '94	May. 23, '94	
					R. Arasawa	M. Endo	T. Yamagiti	DOCUMENT NO.
SYMB	DATE	APPD	CHKD	DSGD				RK0971220A14E7

< 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。

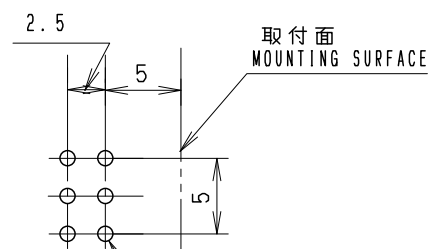
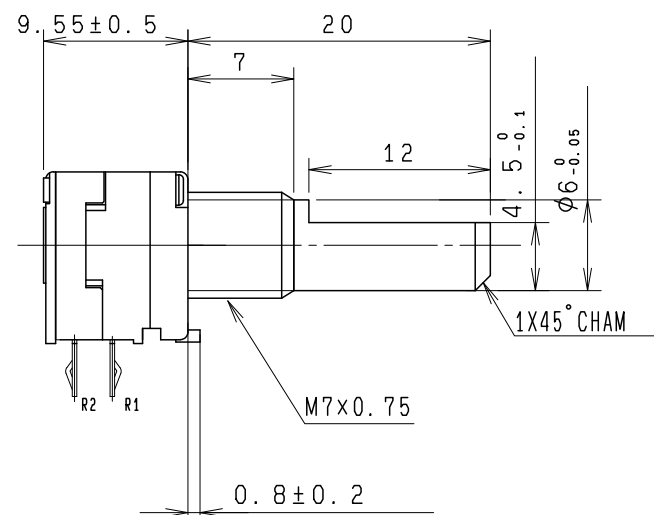
Caution for soldering

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



					ALPSALPINE CO.,LTD.				
					APPD.	CHKD.	DSGD.	TITLE	
					Apr. 14, '93	Apr. 14, '93	Apr. 14, '93	R K 0 9 7 1 2 2 0 A 1 4 E 7	
					S, Aizawa	M, Satoh	Y, Saitoh	DOCUMENT NO.	
SYMB	DATE	APPD	CHKD	DSGD					

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

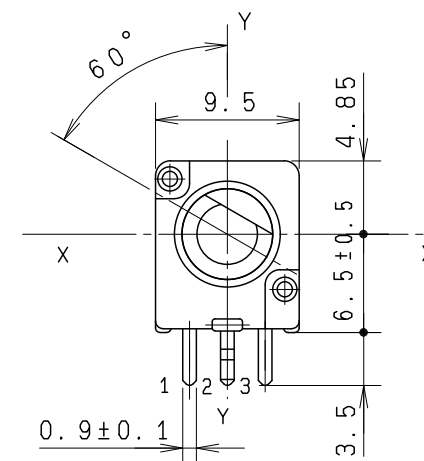
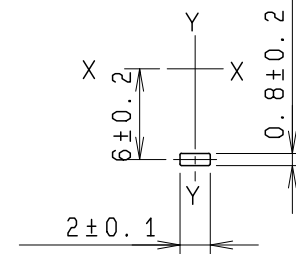


端子取付穴寸法図 (挿入側より見た図)
(許容差±0.1)
MOUNTING HOLE DETAIL
(TOLERANCE±0.1)
VIEWED FROM
MOUNTING SIDE

6- $\phi 1^{+0.1}_{-0}$ 穴 HOLES

質量 4.4g

LOCATING LUG DETAIL
シャ-シ止め詳細図



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

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°

SYMB	DATE	APPD	CHKD	DSGD
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ALPSALPINE CO., LTD.

DSGN. 第1製品部 設計1課

T, YAMAGUTI '94-05-23

SCALE

×

RK0971220F20

CHKD.

M, ENDO '94-05-23



TITLE
9形1軸2連 VR組立図

APPD.

R, ARASAWA '94-05-23

UNIT

m m

DOCUMENT NO.

K092K0006