



Mounting hole detail

3			NAME	RD925G-QA1-****-0HXA	
2					
1			DRAWING NO	RD92G	
NO	DATE	DESCRIPTION			
TOLERANCE		SCALE	DRAWN BY	CHECK BY	APPROVED BY
less than 10±0.3		3/1	周 98.7.24 惠中	廖 98.7.24 世賢	廖 98.7.24 世賢
above 10-30±0.5		DIMENSION			
above 30-100±1.0		m/m			

**MODEL: RD925G-QA1-\*\*\*\*\*-0HXA****Mechanical characteristics:**機械的性能:

Item<項目>	Test methods<試驗方法>	Performance<性能>
Total rotational angle/travel 全迴轉角度/行程	Determined by measuring the rotational angle(travel) when the shaft(lever) is turned(moved) from the end position of terminal 1 to the end position of terminal 3. 軸(柄)置予 1 端最底部移往 3 端最底部之旋轉角度(移動行程).	300°±10°
Rotation torque 迴轉扭力	Determined by measuring the torque(operating force) necessary to turn(move) the shaft(lever). Unless otherwise specified, measurement shall be made at ambient temperature of 5 to 35°C, and the shaft rotational speed shall be 60° per second and the lever traveling speed 20mm per second. 測定扭力必須要旋轉軸或移動推柄, 周圍溫度在 5~35°C 時, 軸以每秒 60° 速度轉動, 推柄以每秒 20mm 速度滑動, 特殊品除外.<以扭力計或拉力計測得>	60±40 gf-cm
Shaft rotational stopper strength 軸的止迴轉強度	With the shaft(lever) placed at the end of terminal 1, a specified torsional moment(force) shall be applied in that direction for 10 seconds. Next, the shaft(lever) shall be placed at the end of terminal 3 and a specified torsional moment(force) shall be applied similarly, to check the operating part and other related sections for deformation, breakage, etc. 軸從 1 端移至止擋點或從 3 端移至止擋點 10 秒後, 直至破壞之力量.<以扭力計測得>	4 kgf-cm
Push-pull strength 軸推拉強度	A specified force shall be applied in the axial direction of the shaft(lever) for 10 seconds to check the operating part and other sections for deformation, breakage, operating condition, etc. 以軸(柄)的軸線方向施加力量, 經 10 秒後, 核對部份動作之有無斷面變形、破損、等情況.	push=4 kgf pull=3 kgf

**Electrical characteristics:**電氣的性能:

Item<項目>	Test methods<試驗方法>	Performance<性能>
Resistance taper 阻值線性	With the shaft(lever) placed in the specified position, shall be determined by measuring the voltage between the specified terminals(between terminals 1 and 2 or between terminal 2 and 3) and calculating the percentage in reference to the voltage between terminals 1 and 3. 軸(柄)在特別位置測定特別端子間的電壓(端子 1 至端子 2 之間或端子 2 至端子 3 之間)參考端子 1 到端子 3 之間的電壓計算的百分比.	A/B/C

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<b>Reference: Standard resistance tapers in reference to rotational angles(travel) are as shown below:</b> 參考:標準阻值曲線及旋轉角度(行程)表示如下:		
<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>TAPER B SERIES</p> </div> <div style="text-align: center;"> <p>TAPER A SERIES</p> </div> <div style="text-align: center;"> <p>TAPERS C SERIES</p> </div> </div>		
<b>Total resistance</b> 總阻值	With the shaft(lever) placed at the end of terminal 1 or 3, shall be determined by measuring the resistance between the resistor terminals 1 and 3 unless otherwise specified. 軸(柄)位置於端子 1 或 3 終端處,測定端子 1 到 3 的電阻值.	10KΩ~500KΩ
<b>Total resistance tolerance</b> 總阻值容許差		±20%
<b>Max. operating voltage</b> 最高使用電壓	Terminal 1 to 3 that can be applied to the maximum voltage. 端子 1 到端子 3 所能承受最大電壓	B curve:50V AC Other than curve B: 25V AC
<b>Rated power</b> 定格電力	The maximum value of electric power that can be applied continuously to the whole area of a resistor (between terminals 1 and 3) at the rated ambient temperature. Meanwhile, assuming that the rated ambient temperature of a carbon film resistor is 50°C, then the maximum power at an ambient temperature of 50~70°C can be obtained by multiplying the rated power by the rated power ratio determined from the derating curve shown below: 周圍溫度相同,最大電力值能連續使用電阻完整面積(指端子 1 到端子 3 之間). 此時,假設炭膜阻值周圍溫度比是 50°C, 最大電力值周圍溫度 50~70°C 可獲得定格電力比決定如下表示: <div style="text-align: center;"> <p>定格電力的輕減曲線 Derating curve</p> </div>	B curve:0.05W  Other than B curve:0.025W

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Residual resistance 殘留阻值	With the shaft (lever) placed at the end of terminal 1, shall be measured between the terminals 1 and 2. Next, with the shaft (lever) placed at the end of terminal 3, the resistance shall be measured between the terminals 2 and 3. If there are tapped terminals, the shaft(lever) shall be turned(moved) and the resulting minimum resistance between the tapped terminal and the terminal 2 shall be measured. 軸(柄)轉到端子 1 最終位置,測定端子 1 2, 軸(柄)轉到端子 3 最終位置,測定端子 2 3, 所得最小阻值即是.	$R \geq 250K\Omega$ 0.1% max. of total resistance $250K\Omega > R > 10K\Omega$ 20 $\Omega$ max. $10K\Omega \geq R$ 10 $\Omega$ max.
Rotational/sliding noise 迴轉/滑動雜音	Measured by connecting the resistor to the amplifier having frequency characteristics specified in JIS C 6443, (if rated voltage is 20V or less, this voltage shall be applied) and by rotating (moving) the shaft (lever) at a speed of about 30 cycles per minute. 依 JIS C 6443 測定,旋轉(移動)軸(柄)以每分鐘大約 30 次動作.<以雜音表測定>.	Less than 100mV
Insulation resistance 絕緣抵抗	Measured with a megger by applying specified voltage to the specified locations. The undermentioned spots shall be tested unless otherwise specified. However, if the section concerned is so constructed as to conduct, that particular part shall not be tested. 測定端子與端子間,端子與固定架間,所得電阻器基板之絕緣電阻.	More than 100M $\Omega$ at DC 250V
Withstand voltage 耐電壓	Measured by applying AC voltage to the specified spot for a minute to check for arc, burning, dielectric breakdown and other abnormalities. Respective terminals may be tested in group. The locations described below shall be tested unless otherwise specified. However, if the section concerned is so constructed as to conduct, that particular part shall not be tested. 施以固定交流電壓 1 分鐘,檢查有無破壞、燒損、異常.但在原來結構上已導通部份,則不進行測試.	More than 300V AC (1 minute)
Gang error 相互偏差(同步)	With the shaft(lever) placed in the specified position, shall be determined by applying test voltage of 2 to 15V(sinewave RMS value) between the terminals 1 and 3 at 1,000 $\pm$ 200Hz and measuring the voltage between the resistor terminal 2 and the specified terminal(terminal 1 or 3), and shall be calculated by the following equation.Meanwhile, unless otherwise specified, DC test voltage may be applied. Gang error=20 log * V2/V1 <用 DB 表測知>	-40 to 0dB    dB $\leq$ 3dB

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Soldering heat 焊錫溫度	Resistance to soldering heat shall be measured according to JIS C 5261(issued in 1993).Terminals shall be put in the laminated board (1.6mm thick), and the laminated board shall be immersed into the solder bath at 300±5°C for 3.5±0.5s (or 260±5°C for 5±0.5s) 電阻器焊錫溫度測定與 JIS C 5261(1993 年發行)一致.端子插入 1.6mm 後的薄板中,浸入 300±5°C 溶液中 3.5±0.5 秒(或 260±5°C 溶液中 5±0.5 秒)	Variation rate of total resistance shall be within ±5%. 總阻值變化率在±5%之內

**Durability:耐久的性能:**

Item<項目>	Test methods<試驗方法>	Performance<性能>
Rotational/sliding life 迴轉/滑動壽命	The shaft(lever) shall be turned at a speed of 600 cycles per hour(counting 1 reciprocating motion as 1 cycle) and 5,000~8,000 cycles a day over 90% of the effective rotational angle(total travel).Unless otherwise specified, the following requirements shall be met after the test is completed: Variation in total resistance: ±15% Slider noise: less than 150mV 在無負荷情況下,軸(柄)以每小時 600 次的速度(有效來回 1 遍稱為 1 次),有效移動距離達 90%以上,每日 5,000~8,000 次的使用次數測試, 全阻變化:±15%. 滑動雜音:低於 150mV.	10,000 cycles (10,000 次)

REMARK: 備註:	PREPARED BY	REVIEWED BY	APPROVED BY
			