

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°
<b>Rotation torque</b> 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>	10~200 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.	push=4 kgf pull=3 kgf

Mechanical characteristics:機械的性能:

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Electrical	charac	teristics	雷氨的性能·
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<b>Resistance taper</b> 且値線性	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>Reference:</b> Standa shown below:	ard resistance tapers in reference to rotational	angles(travel) are as
	E轉角度(行程)表示如下:	
		<u>*</u>
	TAPER A SERIES	
	^°°	
	S00 100 100 100 100 100 100 100 100 100	
	TERMINAL 1 TERMINAL 3	
	ROTATION TRAVEL (%) ->	
Total resistance	With the shaft(lever) placed at the end of	
總阻值	terminal 1 or 3, shall be determined by	
	measuring the resistance between the	
	resistor terminals 1 and 3 unless	
	otherwise specified.	<b>20Κ</b> Ω
		201.12
	軸(柄)位置於端子1或3終端處,測定端子1到3的電	
	阻值.	
Total resistance		
olerance		±20%
總阻值容許差		
Max. operating	Terminal 1 to 3 that can be applied to the	
voltage	maximum voltage.	25V AC
最高使用電壓		20V AC
	端子1到端子3所能承受最大電壓	

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Rated power	The maximum value of electric power that	e dat is
定格電力	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,假設炭膜阻値周圍溫度比是 50℃,最大電力値	
	周圍溫度 50~70°C 可獲得定格電力比決定如下表示:	0.025W
	定格電力的輕減曲線	0.025 W
	Derating curve	
25		
	定 <del>2</del> <del>60</del> 格 ia <del>60</del> 力 <b>60</b> 比 d <b>40</b>	
	(%) 33 20 20	
	0 20 40 50 60 70 80 100	
	周圍溫度(*C)	
	Ambient temperature (°C)	8.
Residual resistance	With the shaft (lever) placed at the end of	
殘留阻値	terminal 1, shall be measured between the	
	terminals 1 and 2. Next, with the shaft	5 - <sup>10</sup>
	(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	<b>20</b> $\Omega$ max.
	turned(moved) and the resulting minimum	2012 1144.
	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12, 軸(柄)轉到	
	端子3最終位置,測定端子23,	
	所得最小阻值即是.	
Rotational/sliding	Measured by connecting the resistor to the	
noise	amplifier having frequency charactristics	
迴轉/滑動雜音	specified in JIS C 6443, (if rated voltage is	
	10.12.12.12.12.12.12.12.12.12.12.12.12.12.	
	20V or less, this voltage shall be applied)	L
	and by rotating (moving) the shaft (lever)	Less than 100mV
	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>.	

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Insulation resistanc 絕緣抵抗	specified with a megger by applying specified voltage to the specified locations. The undermentioned spots shall be teste unless otherwise specified. However, if t section concerned is so constructed	
	tested.	More than 100MΩ at D 250∨
Vithstand voltage	測定端子與端子間,端子與固定架間,所得電阻器基 之絕緣電阻.	板
了电 <u></u> 座 t	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 ested.	More than 300V AC (1 minute)
in la la the	esistance to soldering heat shall be easured according to JIS C 5261(issued 1993).Terminals shall be put in the minated board (1.6mm thick), and the minated board shall be immersed into e solder bath at 300±5°C for 3.5±0.5s r 260±5°C for 5±0.5s)	
1-54.5	1器焊錫溫度測定與 JIS C 5261(1993 年發行)一 端子插入 1.6mm 後的薄板中,浸入 300±5°C 溶液 3.5±0.5 秒(或 260±5°C 溶液中 5±0.5 秒)	Variation rate of total esistance shall be within ±5%. 總阻値變化率在±5%之內

### Durability:耐久的性能:

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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
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