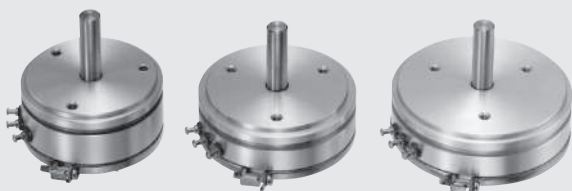


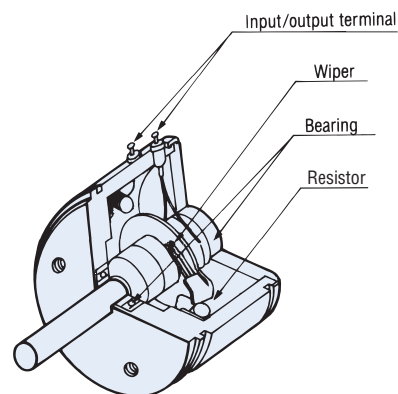
WIREWOUND SINGLE TURN TYPE

J series

RoHS compliant



Basic construction Wirewound single turn type



FEATURES

- High linearity through precision wire winding
- Long life
- High following characteristics
- Low noise
- RoHS compliant

PART NUMBER DESIGNATION

J 50 S		5 0 0
Series name		Nominal resistance value (Ω)
J40S J45S J50S		500, 1 k, 2 k, 5 k, 10 k, 20 k, 50 k

LIST OF PART NUMBERS

Size	Item	Nominal resistance value	Part number
ϕ 40 mm		500 Ω	J40S 500
		1 k Ω	J40S 1 k
		2 k Ω	J40S 2 k
		5 k Ω	J40S 5 k
		10 k Ω	J40S 10 k
ϕ 44.45 mm		500 Ω	J45S 500
		1 k Ω	J45S 1 k
		2 k Ω	J45S 2 k
		5 k Ω	J45S 5 k
		10 k Ω	J45S 10 k
		20 k Ω	J45S 20 k
ϕ 50.8 mm		50 k Ω	J45S 50 k
		500 Ω	J50S 500
		1 k Ω	J50S 1 k
		2 k Ω	J50S 2 k
		5 k Ω	J50S 5 k
		10 k Ω	J50S 10 k
		20 k Ω	J50S 20 k
		50 k Ω	J50S 50 k

※ Verify the above part numbers when placing orders.

STANDARD SPECIFICATIONS

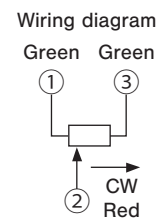
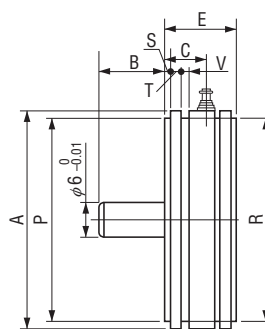
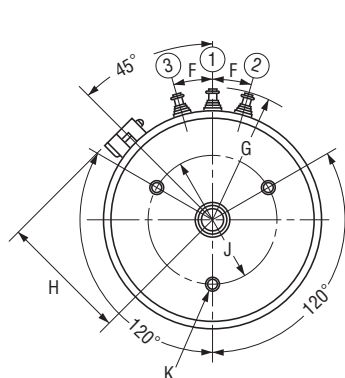
Item	Part number	J40S	J45S	J50S
Resistance tolerance	%	± 5		
Effective electrical angle		$350^\circ \pm 1.5^\circ$	$353^\circ \pm 1.5^\circ$	$355^\circ \pm 1.5^\circ$
Mechanical angle		360° continuous		
Power rating (at 40 °C)	W	1	1.3	1.5
Dielectric strength	Vrms	1000 1 min		
Insulation resistance	M Ω minimum	1000 (at DC500 V)		
Rotational torque	mN·m {gf·cm} maximum	0.59 {6}		0.69 {7}
Peak noise	Ω maximum	10 (4 min ⁻¹)		
Temp. coefficient of resistance	ppm/°C	± 50		
Operating temp. range	°C	-55 ~ 85		
Maximum rotational speed	min ⁻¹	100	200	
Net weight	g	Approx. 58	Approx. 60	Approx. 73
Connecting accuracy		Based on No. 1 terminal		
Protection grade		IP40		

Nominal resistance value(Ω)	Resolution(%)			Independent linearity(%)			Rotational life (million cycles)		
	J40S	J45S	J50S	J40S	J45S	J50S	J40S	J45S	J50S
500	0.13	0.12	0.1	±0.15	±0.1	±0.1	5	10	10
1 k	0.1	0.1	0.08						
2 k	0.08	0.07	0.06						
5 k	0.07	0.08	0.07						
10 k		0.07	0.05						
20 k	—	0.05		—	±0.15	±0.15	1	1	1
50 k		0.04	0.03						

The graph shows the power rating ratio as a function of ambient temperature. The y-axis is labeled 'Power rating ratio (%)' and ranges from 0 to 100. The x-axis is labeled 'Ambient temperature (°C)' and has marked points at -55, +40, and +85. A break symbol (two slanted parallel lines) is shown on the x-axis between -55 and +40. The curve is a horizontal line at 100% from -55°C to +40°C, and then a straight line sloping down to 0% at +85°C.

Ambient temperature (°C)	Power rating ratio (%)
-55	100
+40	100
+85	0

(Unit : mm)



Part number \ Marks	A	B	C	E	F	G	H	J	K	P	R	S	T	V
J40S	$\varnothing 40$	20	13.3	20	16°	R25	25	$\varnothing 30$	M 3 (P = 0.5) D = 3.0 minimum	$\varnothing 37 \begin{smallmatrix} 0 \\ -0.03 \end{smallmatrix}$	$\varnothing 37$	1.57	2.36	1.86
J45S	$\varnothing 44.45$		10.5	16.6	14°	R26.8	26.7			$\varnothing 39.68 \begin{smallmatrix} 0 \\ -0.025 \end{smallmatrix}$	$\varnothing 40.6$			
J50S	$\varnothing 50.8$				12°	R30	30			$\varnothing 47.62 \begin{smallmatrix} 0 \\ -0.025 \end{smallmatrix}$	$\varnothing 47.6$			