

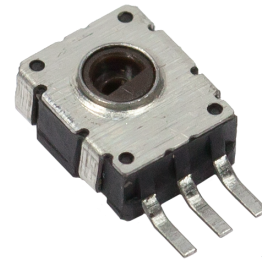
# Rotary Position Sensor

## PHS04 Series



### Features:

- Angle/Position sensor with more than a 300,000 life cycle
- Small footprint size at 4mm width x 5mm length
- Smooth operation



### Description:

The PHS04 series is a rotary position sensor that features a small footprint, smooth operation, and a 300,000 life cycle. Some applications are game controllers and robot joint angle controls.

### Applications:

- Robot joint angle control
- Game controller

### Electrical Characteristics ( $T_A = 25^\circ \text{C}$ unless otherwise noted)

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS
$\Omega$	Total Resistance	1K		100K	Ohms	
V	Rated Voltage	5.0		50	Volts	
W	Rated Power		0.01		Watts	
	Linearity Tolerance			$\pm 5\%$		
	Resistance Tolerance		20%			
	Sliding Noise			300	mV	
	Withstand Voltage		1		Min	At AC 250V
	Insulated Resistance	100			m $\Omega$	DC250V, 1 minute

#### General Note

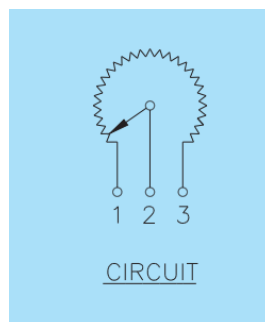
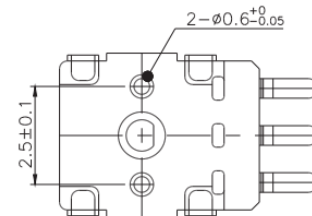
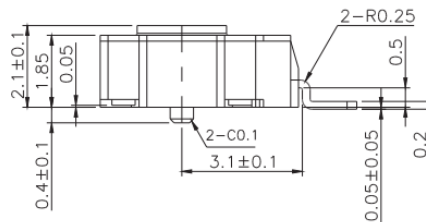
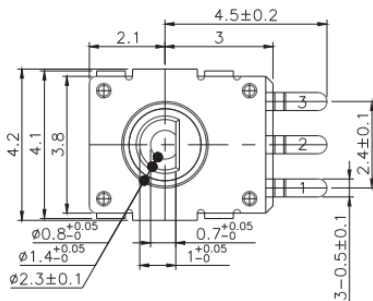
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Mechanical Characteristics	
Rotational torque	20mN-m
Total rotational angle	360°
Push strength	30 N, 3 sec
Pull strength	5 N, 3 sec
Operating temperature	-20°C to 70°C
Storage temperature	-30°C to 70°C
Operating life	300,000 (Standard) 500,000 (Long life)
Dry Heat	70±2°C, 240±2hr, -30%≤ΔTR≤+5%
Cold	-30±2°C, 300±5hr, without load, ΔTR≤±20%
Damp Heat	70±2°C, 85%RH, 300±5hr, -5%≤ ΔTR≤+35%
Temperature Cycle	-10~+70°C, 5 cycles, ΔTR≤±10%
Temperature Characteristics	70±3°Cn 5hr, -20%≤ΔTR≤+5%
Soldering Conditions	Wave soldering: 255±5°C 3 sec Manual soldering: 344±5°C 3 sec



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### ORDERING INFORMATION

