Rotary Position Sensor

PHS11 Series

OBSOLETE use PHS11R



Features:

- Dust proof construction protects the interior from dust, which maintains stable characteristics
- Excellent resistance materials and high reliability wiper achieves 1,500,000 cycles
- Ultra-thin size (2.2mm height)



Description:

The PHS11 series is a rotary position sensor that features dust proof construction, an ultra thin size, and a life cycle of 1,500,000 cycles. Some applications are HVAC sensors and motor drive units.

Applications:

- Rotary angle sensor
- Electric motor-driven bicycle
- Motor drive unit
- HVAC sensor

Electrical Characteristics (T _A = 25° C unless otherwise noted)							
SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS	
Ω	Resistance	1K		100K	Ohms		
	Total resistance tolerance		±20%				
	Power rating			0.1W			
	Linearity (electrical angle < 180°)		±5		%		
	Linearity (180° ≤ electrical angle < 300°)		±3		%		
	Linearity (electrical angle ≥ 300°)		±2		%		
	Rotational noise			<80	mV		
	Effective Electrical Angle		333	±3	Degrees		
	TCR		±500		ppm/°C		

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Mechanical Characteristics					
Rotational Angle	360°				
Rotational torque	0-30gf-cm				
Shaft push/pull strength	> 1.0kgf for 10 sec min				
Storage Temperature	-40°C to +120°C				
Operating Temperature	-40°C to +120°C				
Life Cycles	1,500,000 cycles min				
Dry Heat	120 \pm 3°C, 250 \pm 8H \triangle TR \pm 20%, Linearity: \pm 2%				
Cold	-40 ± 3°C, 168 ±4H △TR ± 20%, Linearity: ±2%				
Humidity	60 ± 2°C, 90 to 95RH, 250 ±8H △TR ± 20%, Linearity: ±2%				
Temperature Cycles	-40°C to +120°C, 5 cycles △TR ± 20%, Linearity: ±2%				

Packaging



