## **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 <sub>A</sub> = 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		

# **OBSOLETE**



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 $\triangle$ TR ± 20%, Linearity: ±2%				

### **Packaging**



