

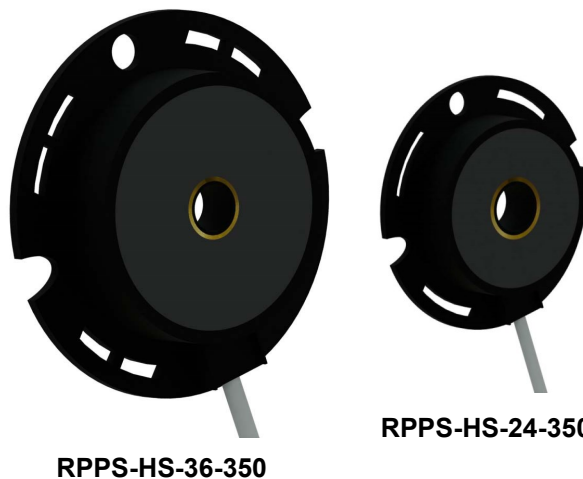
RPPS-HS Series Hollow Shaft Rotary Potentiometer Angle Position Sensor

Features

- 0° to 350° measurement range
- Full 360° mechanical rotation
- Compact lightweight design
- Hollow shaft for ease of mounting

Applications

- Quarter-turn valves
- Flue dampers
- Throttle position
- Dancer arm tensioning



Overview

The RPPS-HS series rotary position potentiometer sensors are used to track the rotational position of a target. They provide an analog voltage output proportional to shaft rotation over a total range of 350°. Typical termination for this sensor is a 3-wire 1 meter (36 in) cable, custom options may be available upon request.

RPPS-HS series sensors are enclosed in a 24mm or 36mm diameter housing, with a centered hollow shaft. Mechanically, the sensor can rotate a full 360°. The resistive potentiometric element is made from conductive plastic. The output signal is ratiometric; from 0% to 100% of excitation voltage, increasing as it is rotated counter-clockwise.

The RPPS-HS has an absolute output characteristic, which is a benefit over incremental output sensors such as optical encoders that lose their position information in the event of a power failure.

Specifications

Input Voltage:	5 VDC max
Full Scale Output:	0 to 100% of input voltage (potentiometer circuit)
Resolution:	Infinite
Element Type:	Conductive plastic
Operating Current:	Input voltage / Potentiometer resistance value

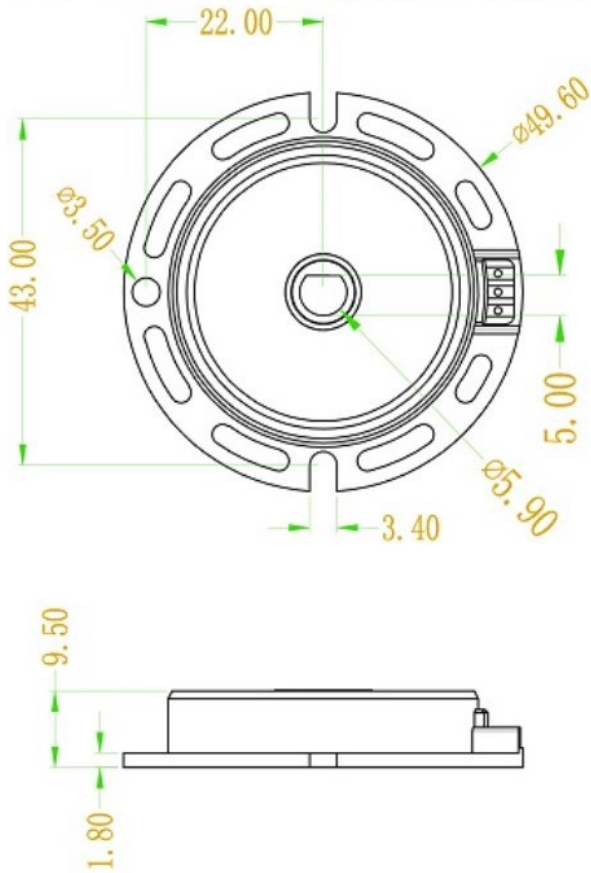
**Non-linearity, Full stroke:
Best Fit Straight Line (BFSL)** $\leq \pm 0.5\%$ (typical), $\leq \pm 1.0\%$ (max)

Operating temperature: -40°C to 85°C (-40°F to 185°F)
Temperature coefficient: $\leq \pm 0.03\%$ of FSO/ $^{\circ}\text{C}$ nominal
Resistance (RPPS-HS-24): $4,000\Omega \pm 20\%$
Resistance (RPPS-HS-36): $5,000\Omega \pm 20\%$
Repeatability: 0.1°

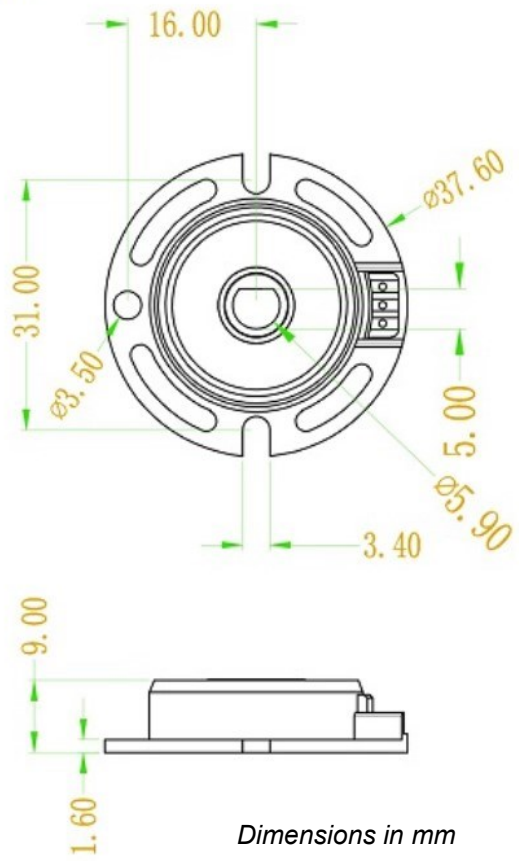
Shock Rating: 50g (single hit) / IEC68-2-29
Vibration Rating: 20g / IEC68-2-6
IP Rating: IP61

RPPS-HS Series Hollow Shaft Rotary Potentiometer Angle Position Sensor

RPPS-HS-36-350



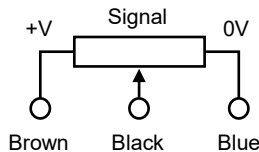
RPPS-HS-24-350



Dimensions in mm

Wiring Pin Out

	Integral Cable
DC Power In	Brown
Signal Output	Black
Ground	Blue



IMPORTANT !
DO NOT CONNECT THE BLACK WIRE TO POWER SUPPLY
THIS WILL CAUSE DAMAGE TO THE SENSOR

Ordering Information

Model	Body OD	Measuring Range	Cable Length	Termination
RPPS-HS	- □ □	- □ □ □	- □ □ □	- □
	24 24 mm 36 36 mm	350 350°	036 36 inch	N Leads

Ordering Example

RPPS-HS-36-350-036-N: 36 mm diameter body, 350° measuring range, 36 inch cable with leads