

# Honeywell

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*Representative photograph, actual product appearance may vary.*

*Due to regional agency approval requirements, some products may not be available in your area. Please contact your regional Honeywell office regarding your product of choice.*

## HRS100SSAB090

**HRS100 Series Hall-Effect Rotary Position Sensor with stainless steel shaft**

### Features

- Solid-state Hall-effect technology
- Maximum ESD sensitivity of  $\pm 7$  kV
- Slotted shaft

### Typical Applications

- Throttle/speed position and control
- Inboard lever control
- Foot pedal position
- Steering position
- Suspension system position
- Seat position
- Mirror position
- Tilt position
- Gimbal position and control
- Manipulator arm position

### Description

The HRS100 provides angular position information for a variety of sensing and control applications in the automotive, marine, truck, off-road, industrial implementation, aerospace and rail industries. The use of magnetically coupled information in place of a mechanical wiper assembly provides a long life, cost-effective solution for harsh environments that include temperature, vibration, dither, moisture and dirt.

This position sensor incorporates Hall-effect to provide a sensing device that will last for more than 50 millions operations. The device is packaged in a metal housing with a 9,5 mm [0.375 in] diameter bushing and a 6,35 mm [0.25 in] diameter slotted shaft and solder lug terminals.



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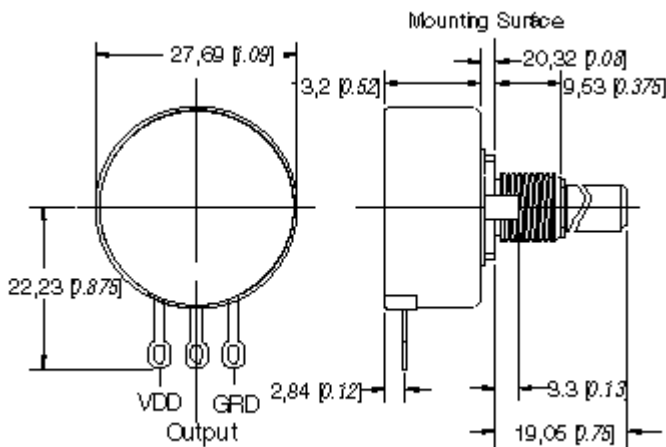
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Product Specifications	
<b>Product Type</b>	Hall-Effect Rotary Position Sensor
<b>Package Style</b>	Stainless Steel Shaft and Brass Bushing
<b>Supply Voltage</b>	5 Vdc $\pm$ 10 %
<b>Output Type</b>	Sink/Source 2mA
<b>Termination Type</b>	Straight Solder Lug
<b>Operating Temperature Range</b>	-40 °C to 85 °C [-40 °F to 185 °F]
<b>Output Voltage</b>	5 % to 95 % of applied Vdd, approx (programmable)
<b>Vibration</b>	15 G/10 Hz to 2000 Hz
<b>Linearity (% of Span)</b>	$\pm$ 2 %
<b>Availability</b>	Global
<b>Mechanical angle of rotation</b>	90 ° $\pm$ 2 ° (custom angles available)
<b>Output Current (max.)</b>	2 mA
<b>Series Name</b>	HRS100 Series
<b>Supply Current (typ. @ 25 °C)</b>	5 mA, exclusive of load
<b>Bushing</b>	9.52 mm [0.375 in] FMS, excludes C-ring
<b>Rotational Cycles</b>	10 million
<b>Rotational Torque</b>	0.014 N m [2.0 in oz] (max. at 25 °C)
<b>Stop Torque</b>	0.56 N m [5 in lbs]
<b>Push Out</b>	9.1 kg [20 lbs] min.
<b>Pull Out</b>	4.5 kg [10 lbs] min.
<b>Overvoltage Protection</b>	18 Vdc max.
<b>EMI</b>	30 V/m, 10 kHz to 1000 MHz at 3 m
<b>Storage Temperature</b>	105 °C [221 °F] max.
<b>Shock</b>	50 g, 11 ms



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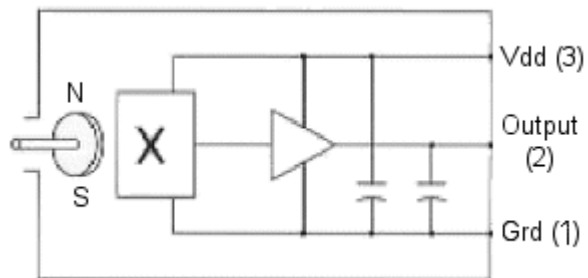
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### **WARNING**

#### **PERSONAL INJURY**

DO NOT USE these products as safety or emergency stop devices, or in any other application where failure of the product could result in personal injury.

**Failure to comply with these instructions could result in death or serious injury.**

### **WARNING**

#### **MISUSE OF DOCUMENTATION**

- The information presented in this product sheet (or catalog) is for reference only. DO NOT USE this document as product installation information.
- Complete installation, operation and maintenance information is provided in the instructions supplied with each product.

**Failure to comply with these instructions could result in death or serious injury.**

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