

# Honeywell Sensing and Control



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## HRS100SSAB090



Actual product appearance may vary.

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

#### Features

- Solid-state Hall-effect technology
- Maximum ESD sensitivity of ± 7 kV
- Slotted shaft

#### Potential 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.

#### Supporting Documentation

[Dimensions](#)

[Electrical Schematic](#)

Product Specifications	
Package Type	Stainless Steel Shaft and Brass Bushing
Supply Voltage	5 Vdc ± 10 %
Output Type	Sink/Source 2 mA
Termination Type	Straight Solder Lug
Operating Temperature	-40 °C to 85 °C [-40 °F to 185 °F]
Storage Temperature	105 °C [221 °F] max.
Output Voltage	5 % to 95 % of Applied Vdd, Approx (Programmable)

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Linearity (% of Span)	±2 %
Availability	Global
Mechanical Angle of Rotation	90° ±2° (custom angles available)
Output Current (max.)	2 mA
Series Name	HRS100
Supply Current (typ. @ 25 °C)	5 mA, Exclusive of Load
Bushing Type	9.52 mm [0.375 in] FMS, Excludes C-ring
Rotational Cycles	10 Million
Rotational Torque	0.014 N m [2.0 in oz] (max. at 25 °C)
Stop Torque	0.56 N m [5 in lbs]
Push Out	9.1 kg [20 lbs] min.
Pull Out	4.5 kg [10 lbs] min.
Overvoltage Protection	18 Vdc max.
EMI	30 V/m, 10 kHz to 1000 MHz at 3 m
Shock	50 g, 11 ms