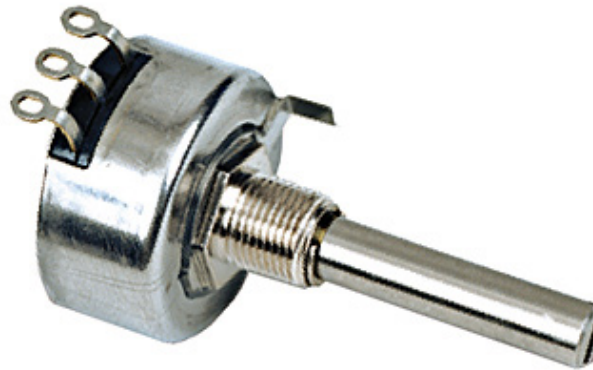


# HRS-100 - Hall Effect Position Sensor



For more information about this product, visit our website at: [www.potentiometers.com](http://www.potentiometers.com)

The unique, new HRS100 Hall Effect Rotary Position Sensor offers cost-effective, ultra long-life, cost effective precision control solutions in harsh environments.

## Features

- Non-contact, magnetic sensor
- Stainless steel housing
- Linearity of 2% or less
- 50 million cycle life
- Temperature coefficient, offset and gain control are programmable at the time of manufacture

## Electrical Specifications

Electrical Angle:  $90^{\circ} \pm 2^{\circ}$  (standard),  $180^{\circ} \pm 2^{\circ}$   
Electrical Output Range: 5% - 95% of applied Vdd  
Linearity:  $\pm 2\%$  (less than 1% is typical)  
Output Current: 2 ma max. (source or sink)  
Over Voltage Protection: 18 VDC max.  
Reverse Voltage Protection: -14.5 VDC max.  
Supply Voltage: 5 VDC  $\pm 10\%$   
Supply Current: 5 ma. Typical

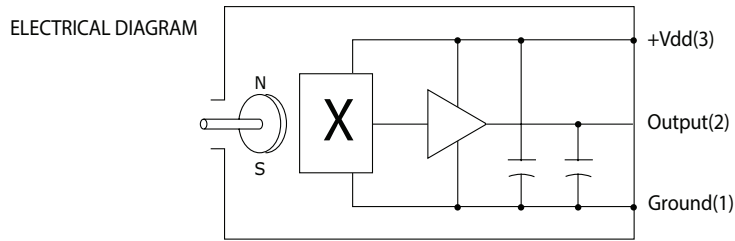
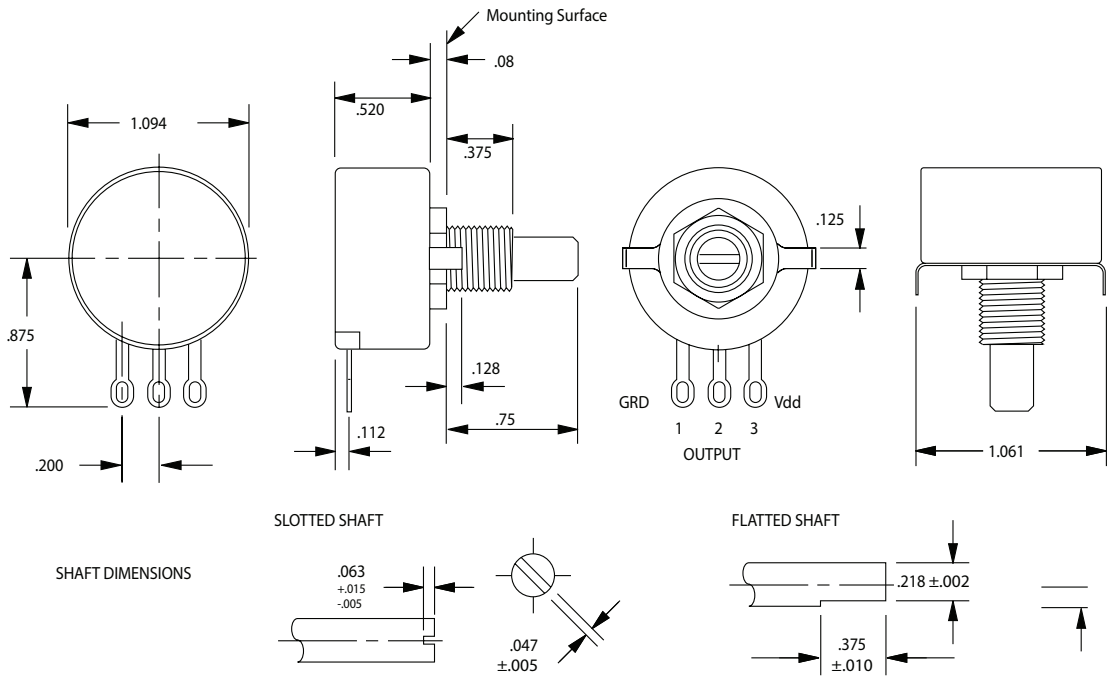
## Mechanical Specifications

Mechanical Angle:  $90^{\circ} \pm 2^{\circ}$  (standard),  $180^{\circ} \pm 2^{\circ}$   
Rotational Torque: 2.0 in. oz. max at  $25^{\circ}$  with shaft seal  
Stop Torque: 5 inch pounds  
Push Out: 20 pounds min.  
Pull Out: 10 pounds min.  
Rotational Life: 50,000,000 cycles min.

## Environmental Specifications

Low Temp. Operation:  $-40^{\circ}$  C  
High Temp. Operation:  $+85^{\circ}$  C  
Storage Temperature:  $+105^{\circ}$  C Max.  
Shock: 50 Gs, 11 ms  
Vibration: 15 Gs, 10 to 2000 Hz

# HRS-100 - Hall Effect Position Sensor



## Ordering Information

Example Part Number: **HS100-SSAB-090**

HRS100	S	S	A	B	090
<b>Model</b>	<b>Shaft Style</b>	<b>Terminals</b>	<b>Linearity</b>	<b>Voltage Out</b>	<b>Electrical Angle in Degrees</b>
HRS100	F = Flatted S = Slotted	S = Straight Solder Lug B = Bent Solder Lugs W = Wire Leads	A = 2%	A = .2 - 2.5V B = .2 - 4.8V	45 to 180 (90 is standard)

For more information about this product, visit our website at: [www.potentiometers.com](http://www.potentiometers.com)



© State Electronics  
36 State Route 10, STE 6 • East Hanover, NJ 07936-0436  
973-887-2550 • Toll Free 1-800-631-8083 • Fax 973-887-1940  
<http://www.potentiometers.com>