

## Hall Effect Rotary Position Sensor



### FEATURES

- Tight Linearity of 2% or Less
- Programmable Temperature Coefficient
- Precision Ultra Long Life Device
- Rugged 10 Million Cycle Life
- Cost Effective in Harsh Environment
- Customised Offset and Gain Control Available

### ELECTRICAL SPECIFICATIONS

PARAMETER	UNIT	
Electrical Angle	Degrees	45, 60, 80, 90° ± 2 degrees 180°, optional*
Electrical Output Range	%	0 - 100, 5 - 45, 5 - 95, 10 - 90 of applied V <sub>DD</sub> Customer specific linear outputs available*
Linearity	± %	2 (less than 1 typical)
Output Current	mA	2 max. (source or sink)
Over Voltage Protection	V <sub>DC</sub>	18 max
Reverse Voltage Protection	V <sub>DC</sub>	- 14.5 max
Supply Voltage	V <sub>DC</sub>	5 ± 10%
Supply Current	mA	5 typical
Load Life	Hrs	Greater than 10,000 at rated load
ESD Sensitivity	-	7KV max (Human body model) Standard electronic assembly practices should be observed
EMI	V/M	30, 10Khz to 1000Mhz at 3 meters

### ENVIRONMENTAL SPECIFICATIONS

Low Temperature Operation	- 40°C
High Temperature Operation	+ 85°C
Storage Temperature	+ 105°C max
Shock	50Gs, 11 ms
Vibration	15Gs. 10 to 2000Hz

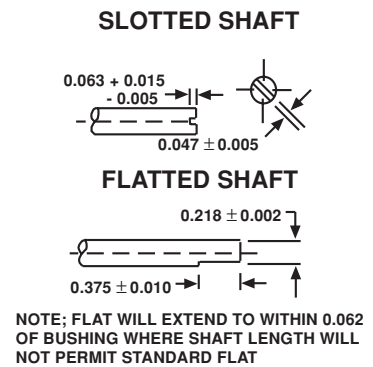
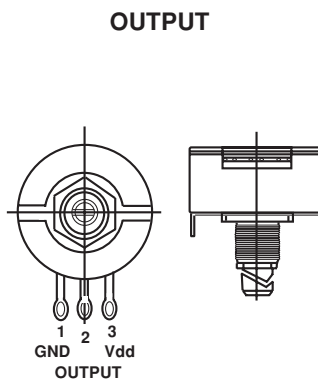
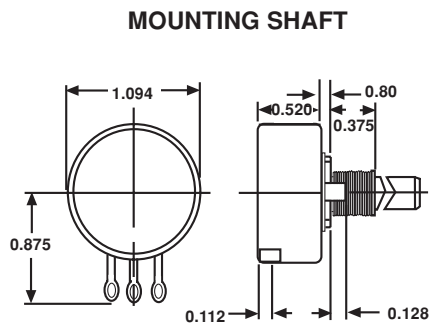
\*Consult the factory

### ORDERING INFORMATION

RPS MODEL	F SHAFT	W SOLDER	A LINEARITY	A VOLTAGE	060 ELECTRICAL ANGLE
	F: Flatted S: Slotted	S: Solder lug (90° from shaft) F: S bent 90° to front B: S bent 90° to back W: Cable wire length (to be specified) C: Cable wire W/connector (to be specified)	2%	A: 0.2V - 2.5V B: 0.2V - 4.8V	45 - 180 Electrical angle in degrees



**DIMENSIONS** in inches (millimeters)



**APPLICATIONS**

**MARINE**

- Throttle position sensor
- Outboard motor
- Inboard/outboard (IO) based power systems
- Diesel engine, electronic injector control
- Control position sensor:
- Rudder position
- Trim tab and plain position
- Drive tilt and drive gimbal position
- Auto pilot feed back and controls
- Drive by wire systems, control and feedback

**AUTOMOTIVE**

- Foot pedal position sensor
- Throttle position sensor
- Steering position sensor
- Suspension system position sensors
- Seat position sensor
- Mirror position sensor

**FORKLIFT - INDUSTRIAL TRUCK - FARM EQUIPMENT:**

- Throttle/speed control (Forward, Neutral, Reverse)
- Foot pedal position sensor
- Lift and shuttle position and control
- Tilt control and feedback of tilt position
- Implement gimbal position and control
- Steering position

**AIRCRAFT**

- Rudder, pitch - trim or aileron position
- Servo tab position
- Flap and slat position
- Flap asymmetry sensors/detection
- Elevator position
- Nose wheel position
- Throttle position
- Foot pedal position sensor
- Fly by wire feedback systems

<b>MECHANICAL SPECIFICATIONS</b>		
PARAMETER	UNIT	
Housing	-	0.598, 0.015 Depth F.M.S x 1.094, 0.015 diameter. Stainless steel can
Bushing	-	3/8 - 32, 0.375 max Length F.M.S Excludes C - RING*
Shaft	-	0.249 ± 0.001 diameter, Flatted, Slotted, Lengths to 1.5 inches*
AR Lugs	°	2 at 180, on 0.531 radius, 0.125W x 0.128 F.M.S 1 lug optional*
Terminal Style	-	Solder lugs or wire leads
Mechanical Angle	deg	45, 60, 80, 90, 2° 180°, optional*
Rotational Life	M	10 (min)
Rotational Torque	in - oz	2.0 max. at 25°C with shaft seal
Stop Torque	-	5 inch pounds
Push Out	-	20 pounds min
Pull Out	-	10 pounds min