



# 1036 RPS

## Contacting Rotary Position Sensor

**Well suited for a variety of vehicle control applications in rugged environments and temperature extremes.**

The 1036 Rotary Position Sensor (RPS) is a versatile device that is fully sealed to ingress protection IP67. This provides exceptional mechanical durability and long electrical life, making it ideal for applications such as:

- Transmission position
- Steering angle
- Gear lever position
- Suspension travel
- Throttle position



The 1036 RPS is ideal for use in automotive, agricultural, off-highway, construction, marine and industrial control systems. It functions perfectly in the harshest environmental conditions, including:

- Temperature extremes
- Continuous vibration
- Chemical exposure
- Water immersion

generic sensors offer customers low cost options with minimal or little tooling investment.

Count on Technologies for sensing solutions that add performance and value to products. We serve customers with advanced design and engineering capabilities, flawless quality performance, flexible manufacturing and on-time delivery.

## Technical Specifications

#1036-0000 Standard Version w/out return spring

#1036-0001 Standard Version with return spring

#1036-0002 Continuous Rotation

### PHYSICAL

- Fully "sealed", robust package suitable for automotive, agricultural, marine and industrial environments
- Electrical connection: AMP Superseal 1.5 Series Connector
- Through hold "D" drive
- Mountable on both faces to give Clockwise and Counter-Clockwise rotation
- Mounting: Slots with  $\pm 15^\circ$  adjustment for M4 screws
- Reference index indent
- Return spring option
- Standard electrical resistance (and Custom Options)

**ELECTRICAL**

	<b>Standard Version</b>	<b>Continuous Rotation</b>
Electrical Angle Maximum	200°	346° ± 1°
RT (Standard Range)	5KΩ AT 20°C ± 10°C	5KΩ AT 20°C ± 10°C
Index Point (Ref. Only)	10% ± 2% AT 90°C Lower Endstop	50% ± 2% AT 180°C Centre Line
Absolute Linearity	± 2%	
Maximum Voltage	30 V d.c.	
Temperature Coefficient	±600 ppm/°C	

**MECHANICAL**

	<b>Standard Version without Spring</b>	<b>Standard Version Return Spring</b>	<b>Continuous Rotation</b>
Rotation	190° Maximum stops	190° Maximum with stops	360° Continuous
Stop Strength - Minimum	680 mNm	680mNm	Not Applicable
Mounting Pitch	41 mm	41 mm	41 mm
Fixing Torque - Recommended	2-3 Nm	2-3 Nm	2-3 Nm
Spring Torque	Minimum Return 20 Nmm Maximum Wind-up 115 Nmm		

**PERFORMANCE & ENVIRONMENTAL**

	<b>Standard Version</b>	<b>Continuous Rotation</b>
Rotational Life (Electrical Angle)	5,000,000 Full Cycles	
Dither Cycles	10,000,000 (2° rotation) Cycles	
Functional Temperature Range	-40°C to +130°C	
Mechanical Vibration	10 - 57 Hz 1mm Displacement 57-100 Hz @ 10g, 100 - 500 Hz @ 27g	
Shock (Operational)	3 Axis 100 x 40 g 6 ms (BSEN 60068-2-29)	
Shock (Handling)	1m Drop (Concrete)	
Sealing	IP67	
Pressure Wash @ Ambient Temperature & 90°C	1,000 psi (69 Bar) (0.3 - 5.0m, 2.5 min)	
Humidity	96% RH @ 40°C (504 Hrs)	
Salt Spray	5% Solution @ 40°C(336 Hrs)	
Chemical Resistance	Diesel, Hydraulic Oil, Gear Box Oil, Engine Coolant, Brake Fluid DOT4, Ethylene Glycol 50% Aqueous, Urea Nitrogen, Liquid Lime 10% Aqueous, 7.5% N.P.K Fertilizer Battery Acid	
Mass	Approx 51g	Approx 47g