

# Rotating Torque Sensors

## Spline Driven - Non-contact [ 01299 ]

The Model 01299 is a rotary torque sensor that operates without the use of slip rings. It consists of 2 parts, the sensor itself and the rack mount unit. The sensor is a bearing style rotary torque device that measures torque, digitizes it, and sends it up the interconnecting cable to the stationary rack mount unit. The rack mount unit provides the user with a +/-5VDC analog output signal that reflects torque on the sensor.



The sensor is designed to meet the mounting requirements of the Army and Navy Standards, AND 20002 and AND 10262. Various spline and coupling features can also be adapted to this package.

## SPECIFICATIONS

### Sensor

Resolution ..... 16 bits  
Accuracy ..... .01% \*  
Sample Rate ..... 5000 samples/second  
Anti-aliasing Filter ..... 4 pole butterworth low pass @ 1000Hz  
Power Input ..... 12VDC (+/- 2.5%) @ 350mA provided by rack mount unit  
Temperature Range ..... -20 to +75 deg C  
Temperature Drift ..... .005% per deg C max

### Rack Mount Unit

Resolution ..... 16 bits  
Accuracy ..... .01%  
Output Voltage ..... +/- 5VDC  
Optional Output Voltage ..... +/- 10VDC  
Output Filter ..... 2 pole butterworth low pass @ 1500Hz  
Power Input ..... 120/240VAC 50/60Hz  
Relay Contact Rating ..... 500mA, 24VDC max  
Relay Contact Type ..... Form C (SPDT)  
Temperature Range ..... -20 to +70 deg C  
Temperature Drift ..... .005% per deg C max

### Optional Speed Sensor

Operating Voltage ..... 5.0VDC – 15VDC  
Output Impedance ..... 1000 Ohms

### Other

Maximum Rotational Speed ..... 10,000 RPM  
Maximum Interconnect Cable Length ..... 250 ft.  
Digital Signal Type ..... RS-485  
Digital Baud Rate ..... 230.4K Baud, 8,N,1

\* Transmitter electronics only. Performance will depend highly on sensing element design. See calibration data sheet supplied for information on sensor / system performance.