

Rotating Torque Sensors

01424 Series

DIGITAL ROTARY SHAFT TORQUE SENSOR

These sensors are designed to measure rotating drive torque using a conventional shaft-to-shaft configuration for in-line placement. The unique design incorporates a digital non-contact wireless system that provides power to the rotating electronics mounted on the shaft and transmits the signal back to the receiver in digital format. The torque signal is then represented as a calibrated high level analog voltage. The sensor features high rotational speed, high frequency response, and high accuracy. These sensors can also be supplied with an optical encoder to measure angle or speed.

SPECIFICATIONS

Capacity 50 in. oz. to 20,000 in.lb. (See chart)
 Overload capacity 150% of F.S.
 Output at F.S. Isolated +/- 5Vdc
 Sample rate 20,000 samples per sec
 Bandwidth dc - 1kHz
 Non-linearity 0.10% of F.S.
 Hysteresis 0.10% of F.S.
 Zero balance 1.00% of F.S.
 Compensated temperature 70 to 170°F (21 to 76°C)
 Useable temperature -40 to +185°F (-40 to 85°C)
 Temperature effect on zero 0.002% of F.S./°F
 Temperature effect on span 0.002% of Rdg./°F
 Supply voltage 12-15Vdc
 Supply current, maximum 350mA
 Maximum shaft speed* 10000 RPM
 *for 2000in-lbs and less, 7500rpms for larger capacities.....



OPTIONS

- Signal amplifier output = +/-10V FS
- Integral optical encoder - 512 ppr (10000rpm)
- Integral optical encoder - 1024 ppr (5800rpm)
- Foot mount

DIMENSIONS

MODEL	CAPACITY			SHAFT	KEY	MATERIAL
	IN-OZ.	IN-LBS	N-M			
01424-030	50	3	0.35	3/8"	1/32" flat	Stainless steel shafts/ Aluminum sensors
01424-060	100	6	0.71			
01424-120	200	12	1.41			
01424-310	500	30	3.53			
01424-620	1000	62	7.06			
01424-012		100	12	0.749	3/16"	Steel
01424-022		200	23			
01424-052		500	56			
01424-013		1000	113	0.999	1/4"	
01424-023		2000	226			
01424-053		5000	565	1.499	3/8"	
01424-014		10000	1130			
01424-153		15000	1700	1.749		
01424-024		20000	2260			

