

Nm **01424**
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.



FEATURES

Digital Rotary Shaft Torque Sensor

- Measurement range 0.35 Nm to 2260 Nm
- Max shaft speed 10000 rpm
- Non-linearity 0.1 %
- Output signal ± 5 V
- Supply voltage 12 ... 15 VDC

OPTIONS

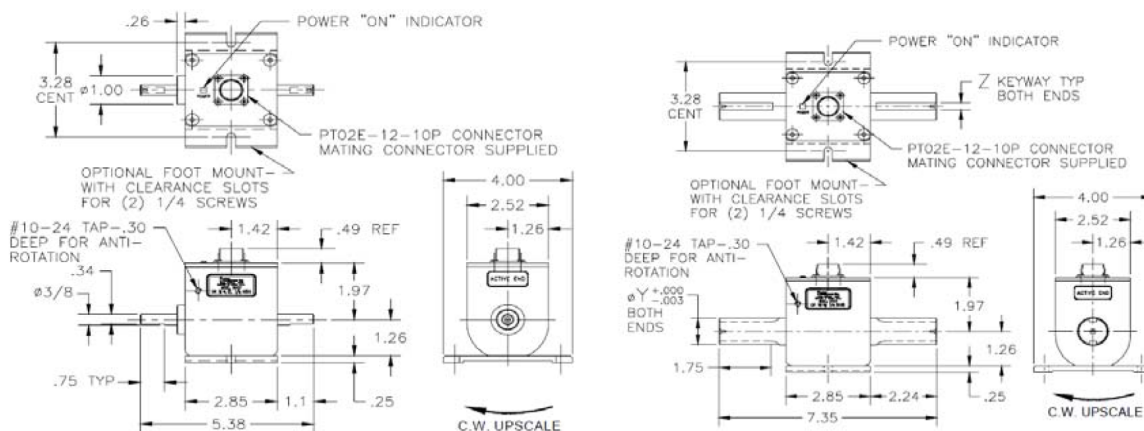
- Signal amplifier output = ± 10 V FS
- Integral optical encoder - 512 ppr (10000 rpm)
- Integral optical encoder - 1024 ppr (5800 rpm)
- Foot mount

SPECIFICATIONS

Capacity:	See chart
Overload capacity:	150 % of FS
Output at FS	± 5 VDC isolated
Sample rate:	20000 samples per second
Bandwidth:	DC ... 1 kHz
Non-linearity:	0.10 % of FS
Hysteresis:	0.10 % of FS
Zero balance:	1.0 % of FS
Compensated temperature range:	+21 ... +76 °C (+70 ... +170 °F)
Operating temperature range:	-40 ... 85 °C (-40 ... +185 °F)
Temperature effect on zero:	0.002 % of FS/°F (0.004 % of FS/K)
Temperature effect on span:	0.002 % of reading/°F (0.004 % of reading/K)
Supply voltage:	12 ... 15 VDC
Supply current, max.:	350 mA
Maximum shaft speed:	10000 rpm for 2000 in-lbs and less; 7500 rpms for larger capacities



DIMENSIONS



Dimensions in „inches“, approx. values
These drawings are for information only and not intended for construction purpose.

Model	Capacity			Shaft	Key	Material
	In. oz	In. lbs	Nm			
01424-030	50	3	0.35	3/8"	1/32" flat	Stainless steel shafts, Aluminium 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	0.999	1/4"	
01424-052		500	56			
01424-013		1000	113			
01424-023		2000	226	1.499	3/8"	
01424-053		5000	565			
01424-014		10000	1130	1.749	3/8"	
01424-153		15000	1700			
01424-024		20000	2260			