

DIGITAL ROTATING TORQUE SENSORS

SHAFT-TO-SHAFT CONFIGURATION



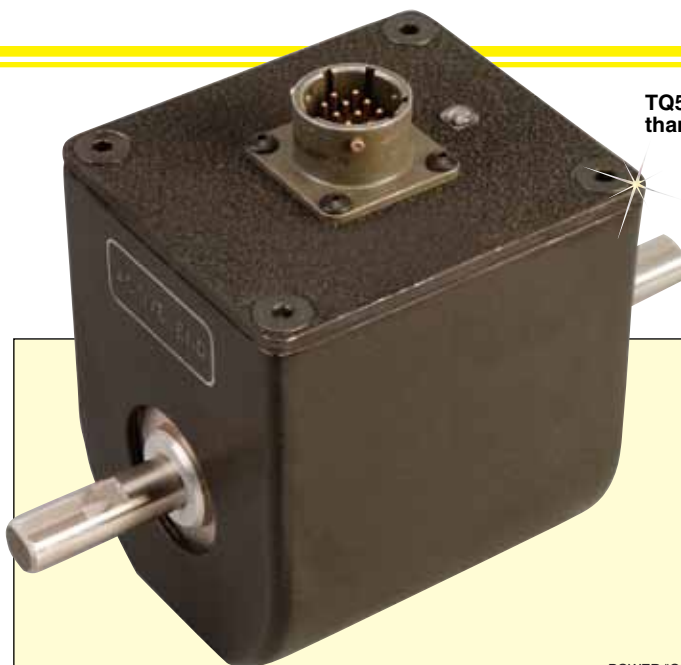
0-3 in-lb to 0-2000 in-lb
0-0.35 to 0-226 N-M
10,000 RPM Max

TQ514 Series

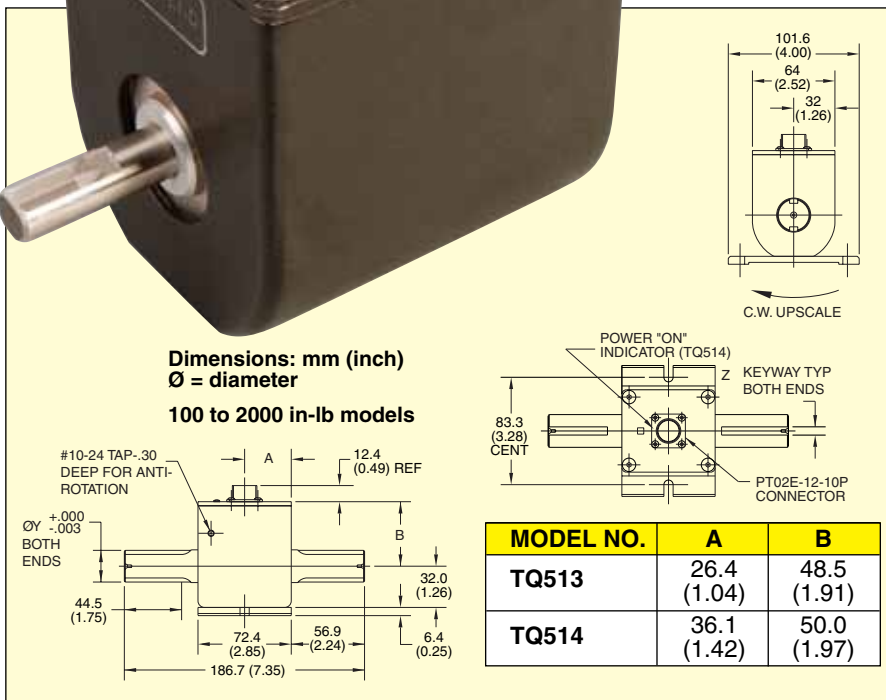


- ✓ No Slip Rings for Quiet, High Speed Operation Up to 10,000 RPM
- ✓ Amplified ± 5 Vdc Output for Easy Computer Interface
- ✓ Optional Optical Encoder for Angle or Speed Measurement

The TQ514 Series use a unique digital, non-contact wireless system to supply power to and transmit the signal from the rotating sensor. The digital torque signal is then converted and amplified to a ± 5 Vdc analog signal. This system reduces noise and allows for higher operating speeds. An optional 512 ppr optical encoder is available to measure angle or speed.



TQ514-003, shown smaller than actual size.



SPECIFICATIONS:

Excitation Voltage: 12 to 15 Vdc
Supply Current: 350 mA
Output at Full Scale: Isolated ± 5 Vdc
Sample Rate: 20,000 samples per second
Bandwidth: dc to 1 kHz
Linearity: 0.10% FS
Hysteresis: 0.10% FS
Zero Balance: 1.0% FS
Operating Temperature: -40 to 85°C (-40 to 185°F)
Compensated Temperature: 21 to 76°C (70 to 170°F)
Thermal Effects
Zero: 0.0036% FS/°C
Span: 0.0036% FS/°C

Material: <100 in-lb SS shafts, aluminum sensor ≥ 100 in-lb steel shaft and sensor
Overload Capacity: 150% FS
Maximum Shaft Speed: 10,000 RPM
Electrical Connection: 10-pin twist lock connector (mating connector supplier)

To Order

MODEL NO.	CAPACITY			SHAFT	KEY
	in-oz	in-lb	N-M		
TQ514-003	50	3.125	0.35	3/8"	1/32" flat
TQ514-006	100	6.25	0.71		
TQ514-012	200	12.5	1.41		
TQ514-030	500	31.25	3.53		
TQ514-062	1000	62.5	7.06	0.749	3/16"
TQ514-100	—	100	12		
TQ514-200	—	200	23		
TQ514-500	—	500	56	0.999	1/4"
TQ514-1K	—	1000	113		
TQ514-2K	—	2000	226		

OPTIONS

ORDER SUFFIX	DESCRIPTION
-EN512	Integral 512 ppr optical encoder
-MB	Foot mounting bracket

Comes complete with operator's manual.

Ordering Examples: TQ514-012, 12 in-lb range rotating torque sensor.

TQ514-500-EN512, 500 in-lb rotation torque sensor with 512 ppr optical encoder.