

RUGGED IN-LINE ROTARY TORQUE SENSORS WITH INTEGRAL SLIP-RING ASSEMBLY



TQ501-1K, with DP41-S,
shown smaller than
actual size



TQ501 Series

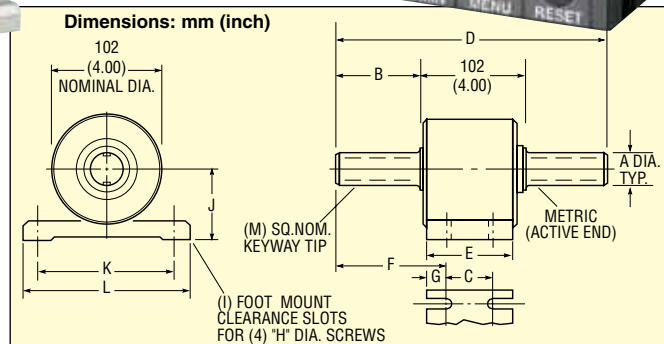


- ✓ Ideal for Measuring Torque in Rotating Shafts
- ✓ Uses Proven Slip Ring Technology
- ✓ Both Ends Double-Keyed for Easy Installation
- ✓ Replaceable Slip-Ring Brushes Available
- ✓ Mating Connector Included

The TQ501 rotary torque sensor is ideal for measuring torque in rotating shafts. An integral slip-ring assembly is used to transfer the electrical signal from rotating to stationary electronics. The slip ring consists of silver graphite brushes that rub on the rotating ring, providing an electrical path for the incoming excitation and the outgoing signal voltage.

SPECIFICATIONS

Rated Output: 2 mV/V nominal
Excitation: 10 Vdc, 20 Vdc maximum
Accuracy: ±0.18% full scale
Linearity: ±0.10% full scale
Hysteresis: ±0.10% full scale
Repeatability: ±0.10% full scale
Zero Balance: ±1.0% full scale
Operating Temp Range: -53 to 120°C (-65 to 250°F)
Compensated Temp Range: 0 to 77°C (32 to 170°F)
Thermal Effects: Zero ±0.002% FS/°F; span ±0.002% rdg/°F
Max Load: Safe: 150% full scale; ultimate: 300% full scale
Bridge Resistance: 350 Ω nominal
Brush Life: 1.4 x 10⁷/rpm
Full Scale Angular Deflection: 1.2°
rpm: 6000 maximum
Construction: Nickel-plated steel
Electrical: Mating connector supplied
Weight: 3.6 kg (8 lb)



Dimensions: mm (inch)

Model No.	A +0.000 -0.003	B	C	D	E	F	G	H	J +0.000 -0.010	K	L	M
TQ501-100	19 (0.750)											5 (⁵ / ₁₆)
TQ501-200		57 (2.25)	40 (1.56)	216 (8.50)	83 (3.26)	83 (3.26)	22 (0.86)	6 (¹ / ₄)	54 (2.125)	102 (4.000)	121 (4.75)	
TQ501-500												6 (³ / ₄)
TQ501-1K	25 (1.000)											
TQ501-2K												
TQ501-5K												
TQ501-10K	38 (1.500)	70 (2.75)	51 (2.02)	241 (9.50)	89 (3.50)	92 (3.64)	19 (0.74)	10 (³ / ₈)	64 (2.500)	133 (5.250)	159 (6.25)	10 (³ / ₈)

To Order

MODEL	RANGE	COMPATIBLE METERS*
TQ501-100	0-100 in-lb	DP41-S, DP302-S, DP2000-S4
TQ501-200	0-200 in-lb	DP41-S, DP302-S, DP2000-S5
TQ501-500	0-500 in-lb	DP41-S, DP3002-S, DP87
TQ501-1K	0-1000 in-lb	DP41-S, DP302-S, DP2000-S4
TQ501-2K	0-2000 in-lb	DP41-S, DP302-S, DP2000-S5
TQ501-5K	0-5000 in-lb	DP41-S, DP3002-S, DP87
TQ501-10K	0-10,000 in-lb	DP41-S, DP3002-S, DP87

OPTION

ORDER SUFFIX	DESCRIPTION
-RPM	rpm speed sensor (60 pulses/rev.)

ACCESSORY

MODEL	DESCRIPTION
TX4-100	100' of 4-con. PVC shielded wire

Comes complete with operator's manual.

* Visit us online for compatible meters.

Ordering Example: TQ501-200, rotary torque sensor with integral slip-ring assembly and 0 to 200 in-lb range.