# **REACTION TORQUE CELLS** NON-ROTATING SHAFT MOUNT LOW TORQUE RANGE



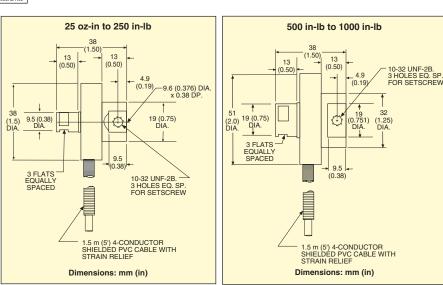


- All Stainless Steel Case for Long-Term Reliability in Industrial Environments
- High Accuracy
- Shielded Cable for Precise Low-Noise Measurements
- Heavy-Duty Mounting for Positive, Non-Slip Connection

OMEGA's TQ201 Series comprises in-line mount reaction torque sensors. They are designed to be mounted to the torque-producing element for measuring the starting torque of motors.

#### SPECIFICATIONS

Output: 2 mV/V Excitation: 10 Vdc, 15 V max Input Resistance: 350 Ω min Output Resistance: 350 Ω min Accuracy Class: ±0.2% FSO Linearity: ±0.15% FSO Hysteresis: ±0.10% FSO Repeatability: ±0.03% FSO Zero Balance: ±2% FSO **Operating Temp Range:** -54 to 107°C (-65 to 225°F) **Compensated Temp Range:** 16 to 71°C (60 to 160°F) **Thermal Effects:** Zero: ±0.005% FSO/°F Span: ±0.005% rdg/°F Safe Overload: 150% of capacity Ultimate Overload: 300% of capacity **Construction:** Stainless steel Protection Class: IP65 Electrical (TQ201): 1.5 m (5') 4-conductor shielded PVC cable with strain relief



#### MOST POPULAR MODELS HIGHLIGHTED!

To Order <i>(Specify Model Number)</i>							
RANGE	MODEL NO.	PRICE	COMPATIBLE METERS*				
0 to 25 oz-in	TQ201-25Z	\$895	DP41-S, DP25B-S				
0 to 30 oz-in	TQ201-30Z	895	DP41-S, DP25B-S				
0 to 100 oz-in	TQ201-100Z	795	DP41-S, DP25B-S				
0 to 120 oz-in	TQ201-120Z	795	DP41-S, DP25B-S				
0 to 150 oz-in	TQ201-150Z	795	DP41-S, DP25B-S				
0 to 200 oz-in	TQ201-200Z	795	DP41-S, DP25B-S				
0 to 25 in-lb	TQ201-25	795	DP41-S, DP25B-S				
0 to 50 in-lb	TQ201-50	795	DP41-S, DP25B-S				
0 to 100 in-lb	TQ201-100	795	DP41-S, DP25B-S				
0 to 250 in-lb	TQ201-250	795	DP41-S, DP25B-S				
0 to 500 in-lb	TQ201-500	795	DP41-S, DP25B-S				
0 to 1000 in-lb	TQ201-1K	795	DP41-S, DP25B-S				

Comes with 5-point calibration.

\* See section D for compatible meters. Metric ranges available – consult Engineering. Ordering Examples: TQ201-30Z, 30 oz-in range reaction torque sensor, \$895. TQ201-250, 250 in-lb range reaction torque sensor, \$795.

#### ACCESSORY

ACCESSON			
MODEL NO.	PRICE	DESCRIPTION	
OP-17	\$15	Reference Book: Measure for Measure	

# **REACTION TORQUE SENSORS** FLANGE-TO-SHAFT MOUNT LOW TORQUE RANGE

**TQ202 Series** Reaction Torque 0-25 oz-in to 0-250 in-lb 0-0.18 N-m to 0-30 N-m



- All Stainless Steel Case for Long-Term Reliability in Industrial Environments
- High Accuracy
- Shielded Cable for Precise Low-Noise Measurements
- Heavy-Duty Mounting for Positive, Non-Slip Connection

OMEGA's TQ202 Series torque sensors are small, high-accuracy flange- or surface-mount devices designed for measuring reaction torque forces up to 250 in-lb. The shaft attachment has 3 equally spaced flat surfaces to ensure non-slip mounting without the use of a key. The all stainless steel construction ensures long life in industrial environments, as well as long-term accuracy.



#### SPECIFICATIONS

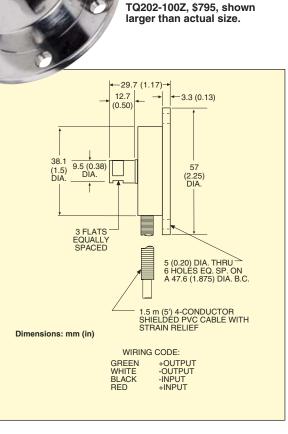
Output: 2 mV/V Excitation: 10 Vdc, 15 V max

**Input Resistance:** 360 Ω min

## Output Resistance: $350 \pm 5 \Omega$

Accuracy: ±0.2% FSO (combined linearity, hysteresis and repeatability) Zero Balance: ±2% FSO Compensated Temp Range: 16 to 71°C (60 to 160°F) Operating Temp Range: -54 to 107°C (-65 to 225°F) Thermal Effects: Zero: 0.005% FSO/°F

**Span:** 0.005% rdg/°F



Safe Overload: 150% of capacity Ultimate Overload: 300% of capacity Construction: Stainless steel Electrical: 1.5 m (5') 4-conductor shielded PVC cable with strain relief Protection Class: IP65

#### MOST POPULAR MODELS HIGHLIGHTED!

To Order <i>(Specify Model Number)</i>							
RANGE	MODEL NO.	METRIC RANGE	MODEL NO.	PRICE	COMPATIBLE METERS*		
0 to 25 oz-in	TQ202-25Z	0 to 0.175 N-m	TQM202-0.175	\$895	DP41-S, DP25B-S		
0 to 30 oz-in	TQ202-30Z	0 to 0.20 N-m	TQM202-0.2	895	DP41-S, DP25B-S		
0 to 100 oz-in	TQ202-100Z	0 to 0.70 N-m	TQM202-0.7	795	DP41-S, DP25B-S		
0 to 120 oz-in	TQ202-120Z	0 to 0.85 N-m	TQM202-0.85	795	DP41-S, DP25B-S		
0 to 150 oz-in	TQ202-150Z	0 to 1.0 N-m	TQM202-1	795	DP41-S, DP25B-S		
0 to 200 oz-in	TQ202-200Z	0 to 1.4 N-m	TQM202-1.4	795	DP41-S, DP25B-S		
0 to 25 in-lb	TQ202-25	0 to 2.8 N-m	TQM202-2.8	795	DP41-S, DP25B-S		
0 to 50 in-lb	TQ202-50	0 to 5.6 N-m	TQM202-5.6	795	DP41-S, DP25B-S		
0 to 100 in-lb	TQ202-100	0 to 11 N-m	TQM202-11	795	DP41-S, DP25B-S		
0 to 250 in-lb	TQ202-250	0 to 28 N-m	TQM202-28	795	DP41-S, DP25B-S		
Compositivith E point	Comes with 5-point calibration						

Comes with 5-point calibration. \* See section D for compatible meters.

\* See section D for compatible meters. Metric ranges available – consult Engineering. Ordering Examples: TQ202-25Z, 25 oz-in range reaction torque sensor, \$895. TQ202-100, 100 in-lb range reaction torque sensor, \$795.

ACCESSORY

 MODEL NO.
 PRICE
 DESCRIPTION

 ME-1804
 \$125
 Reference Book: Mechanical Design Handbook

# omega.co.uk®

Your One-Stop Source for Process Measurement and Control!

Freephone 0800 488 488 | International +44(0) 161 777 6622 | Fax +44(0) 161 777 6622 | Sales@omega.co.uk

### www.omega.co.uk



UNITED STATES www.omega.com 1-800-TC-OMEGA Stamford, CT.

CANADA www.omega.ca Laval(Quebec)

1-800-TC-OMEGA

#### GERMANY

www.omega.de Deckenpfronn, Germany 0800-8266342 UNITED KINGDOM www.omega.co.uk Manchester, England 0800-488-488 +44-(0)161-777-6611

> FRANCE www.omega.fr 0800-466-342

BENELUX www.omega.nl 0800-099-33-44



# More than 100,000 Products Available!

### Temperature

Calibrators, Connectors, General Test and Measurement Instruments, Handheld Instruments for Temperature Measurement, Ice Point References, Indicating Labels, Crayons, Cements and Lacquers, Infrared Temperature Measurement Instruments, Recorders, Relative Humidity Measurement Instruments, PT100 Probes, PT100 Elements, Temperature & Process Meters, Timers and Counters, Temperature and Process Controllers and Power Switching Devices, Thermistor Elements, Probes and Assemblies, Thermocouples, Thermowells and Head and Well Assemblies, Transmitters, Thermocouple Wire, RTD Probes

### Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

### pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

## Data Acquisition

Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485, Ehernet and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

### • Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Pressure Transmitters, Strain Gauges, Torque Transducers, Valves

### Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters