



**Nm** **QWLC-8M**  
Miniature Reaction Torque Transducer

Model QWLC-8M miniature reaction torque transducer is engineered for minimum size and to achieve 0.1% maximum non-linearity. Four bonded strain gages are positioned on a special machined portion of the transducer to effectively measure even slight torque motion.

These models operate and are calibrated in both directions. A modular, stainless steel construction and no moving parts provide excellent durability under harsh industrial conditions. Potential miniature reaction torque transducer applications include motor dynamometer, tire braking, twist measurement, and friction-skid test measurements.

**SPECIFICATIONS**

**PERFORMANCE SPECIFICATIONS**

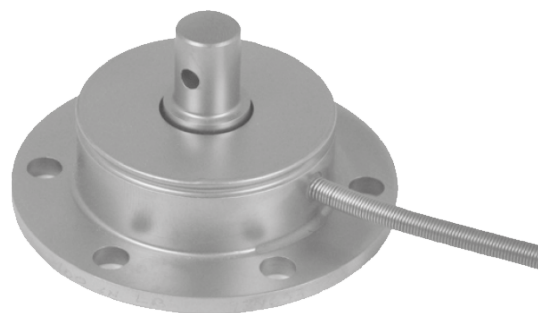
Characteristic	Measure
Range	25, 100, 250 in-oz; 50, 100, 300 in-lb
System accuracy	±0.1 % full scale
Linearity	±0.1 % full scale
Hysteresis	±0.1 % full scale
Non-repeatability	±0.03 % full scale
Output	2 mV/V nominal
Resolution	Infinite

**ENVIRONMENTAL SPECIFICATIONS**

Characteristic	Measure
Temperature, operating	-54 °C to 107 °C [-65 °F to 225 °F]
Temperature, compensated	16 °C to 71 °C [60 °F to 160 °F]
Temperature effect, zero	0.005 % full scale/°F
Temperature effect, span	0.005 % reading/°F

**ELECTRICAL SPECIFICATIONS**

Characteristic	Measure
Strain gage type	Bonded foil
Excitation	10 Vdc (5 Vdc if torque range ≤100 in-oz)
Bridge resistance	350 ohm
Electrical termination	Teflon cable (1.5 m [5 ft])



**FEATURES**

- 25 in-oz to 300 in-lbs
- 0.1 % non-linearity and hysteresis
- Compact size
- High frequency response
- Stainless steel construction
- Integral cable standard

**RANGE CODES**

Range Code	Available ranges
<b>TB</b>	25 in-oz
<b>TD</b>	100 in-oz
<b>TF</b>	250 in-oz
<b>TH</b>	50 in-lb
<b>TJ</b>	100 in-lb

**OPTION CODES**

Range Code	Many range/option combinations are available in our quick-ship and fast-track manufacture programs. Please see <a href="http://sensing.honeywell.com/TMsensor-ship">http://sensing.honeywell.com/TMsensor-ship</a> for updated listings.
<b>Torque range</b>	25, 100, 250 in-oz; 50, 100, 300 in-lb
<b>Temperature compensation</b>	<b>1a.</b> 16 °C to 71 °C [60 °F to 160 °F] <b>1b.</b> -1 °C to 54 °C [30 °F to 130 °F] <b>1c.</b> -18 °C to 85 °C [0 °F to 185 °F] <b>1d.</b> -29 °C to 54 °C [-20 °F to 130 °F] <b>1e.</b> -29 °C to 93 °C [-20 °F to 200 °F] <b>1f.</b> 21 °C to 121 °C [70 °F to 250 °F]
<b>Internal amplifiers</b>	<b>2u.</b> Unamplified, mV/V output
<b>Electrical termination</b>	<b>6e.</b> Integral cable: Teflon
<b>Interfaces</b>	<b>53e.</b> Signature calibration <b>53t.</b> T.E.D.S. IEEE 1451.4 module

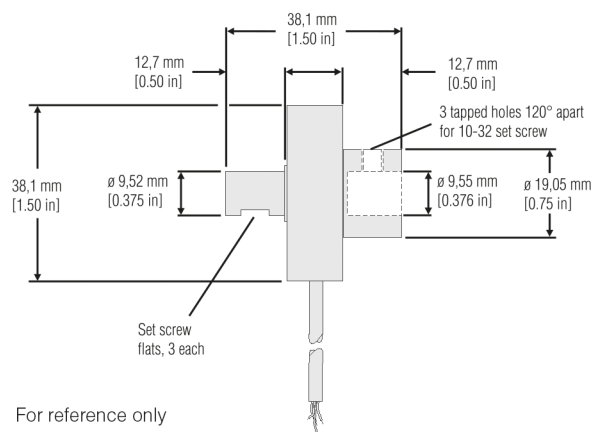


**SPECIFICATIONS**

**MECHANICAL SPECIFICATIONS**

Characteristic	Measure
Static overload capacity	50 % over capacity
Case material	Stainless steel
Deflection torsional, 25 in-oz to 50 in-lb	0.0027 radians
Deflection torsional, 100 in-lb to 300 in-lb	0.00255 radians

**MOUNTING DIMENSIONS**



**TYPICAL SYSTEM DIAGRAM**

