Nm

QWFK-8M
Miniature Reaction Torque Transducer

Models QWFK-8M miniature reaction torque transducers 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.

FEATURES

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

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])

RANGE CODES

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

OPTION CODES

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

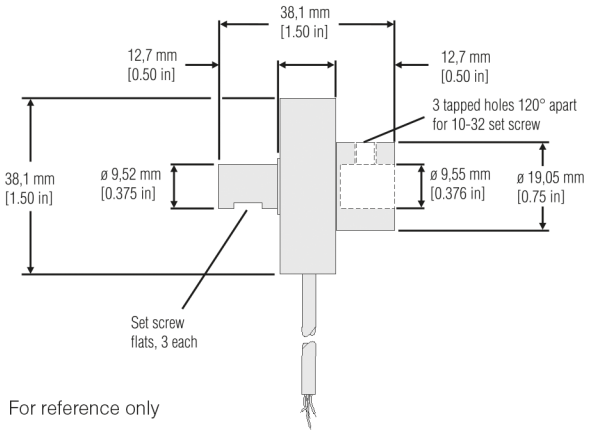
Version | 09.2019

SPECIFICATIONS

MECHANICAL SPECIFICATIONS

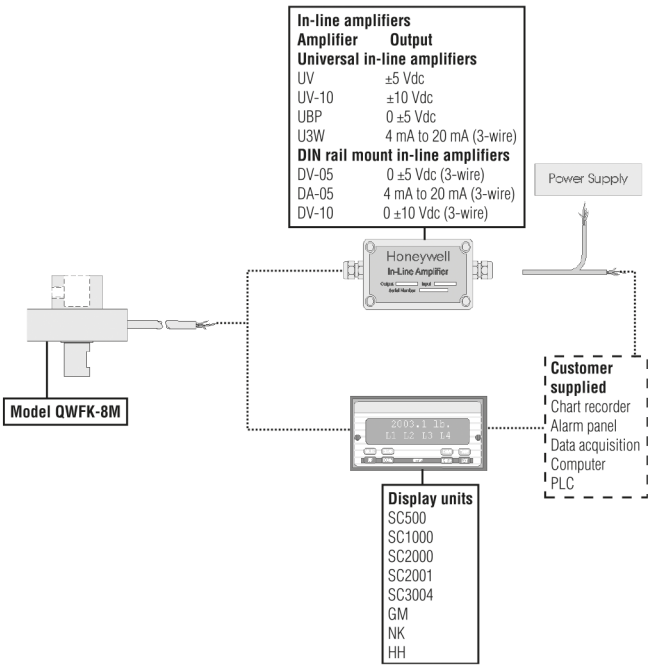
Characteristic	Measure
Static overload capacity	50 % over capacity
Case material	Stainless steel
Deflection torsional, 25 in-oz to 50 in-lb	0.0027 radians
Deflection torsional, 100 in-lb to 300 in-lb	0.00255 radians

MOUNTING DIMENSIONS



For reference only

TYPICAL SYSTEM DIAGRAM



Version | 09.2019