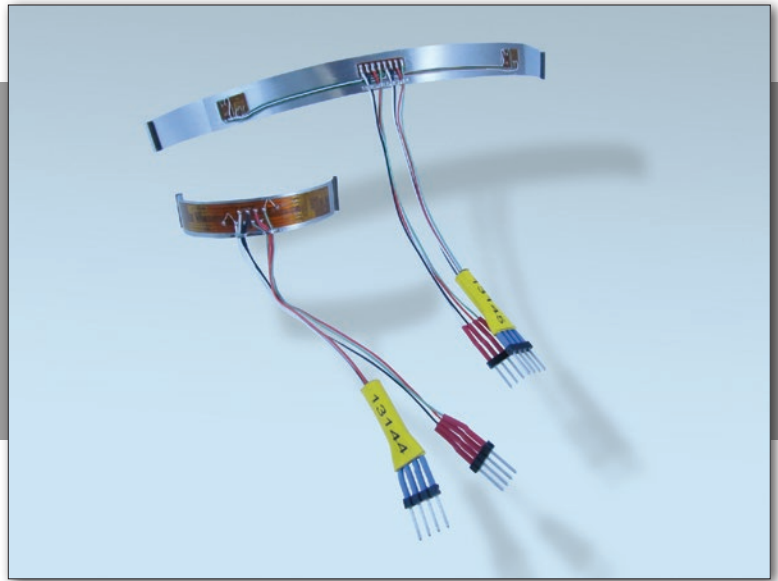


## Quick Stem Sensor (QSS) Commercially Dedicated for Nuclear Application



### The Accuracy Standard

In field-installed motor or air operated valve thrust and torque sensor for maintenance and diagnostics

#### Uncalibrated:

Within  $\pm 8.2\%$  of reading with 1% QUIKLOOK System

#### Calibrated:

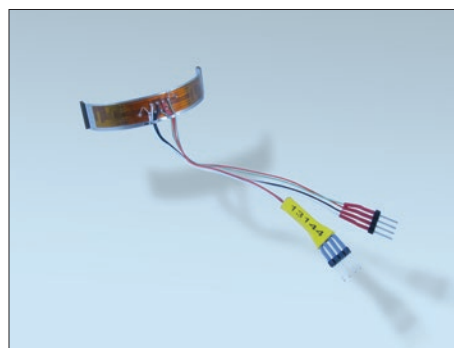
Within  $\pm 3.2\%$  of reading with 1% QUIKLOOK System

#### Status:

Commercial Grade Dedication for Safety Related use in Nuclear Applications

### Background

Utilities operating nuclear power plants agree that the correct functioning of all motor operated valves, and particularly those in safety-related systems, is of paramount importance. The Nuclear Regulatory Commission has issued Generic Letters GL89-10, GL96-05 and other documents which relate to this concern. Operability must be demonstrated under design-basis conditions if practical. Described below is a patented transducer that improves on existing valve thrust and torque measurement transducers currently offered.



### Description

The Teledyne Test Services (TTS) Quick Stem Sensor (QSS) is a patented device which is applied to a valve stem using a layer of adhesive. Strain gages, Wheatstone bridge circuitry and pre-wired connectors are included in the one-piece transducer. After mounting and curing, the transducer can be used with or without calibration depending on accuracy requirements. For greater accuracy the transducer is calibrated in-situ for torque and thrust using QUIKLOOK.

The TTS QSS makes possible an accurate nonintrusive direct measurement and greatly reduces installation time without comprising the quality of the measurement.