

## Advanced Technology for Continual Performance in Extreme Environments



### Trusted by Industry Leaders

For more than 60 years, Quantic BEI has advanced the technology of optical encoders and motion control systems with a focus on the singular characteristic that matters most: performance. The Quantic BEI portfolio includes the industry's absolute best-in-class encoders, scanners, oscillators, and accelerometers. As a Quantic company, we're part of an extended engineering ecosystem and powerful supply chain defining a competitive advantage that extends to every customer.

From catalog parts to custom solutions, Quantic BEI works with your engineering teams to deliver the technology that meets the needs of the application, whether straightforward or complex.

### Featured Products



#### Absolute Kit Encoders

- > These absolute optical encoders are considered "kits" because they are delivered as major subcomponents, giving the user the ability to install at their own facility.



#### Absolute Housed Encoders

- > Absolute Housed encoders are designed with either a solid shaft or a "hollow shaft" through-hole. All encoder electronics are contained within the device, giving designers the option to seal these units from dust or moisture.



#### Incremental Housed Encoders

- > Quantic BEI incremental housed encoders provide relative angular position between a unique index pulse and the current rotary position. Output formats are available in quadrature square wave or pulse trains in either uni- or bidirectionality.



#### Absolute Multi-Turn Encoders

- > Quantic BEI absolute multi-turn encoders provide angular position that represents one revolution per some number of turns of the input shaft. These encoders are manufactured with internal gear boxes that rotate a fine and coarse code disk at different rates per input shaft rotation.



#### Linear Accelerometers

- > Quantic BEI manufactures flight worthy pivot and jewel accelerometers and displacement sensors for flight control systems and fatigue vibration monitoring.



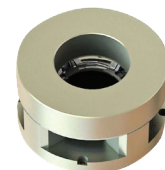
#### Inertial Angular Displacement Sensor

- > Quantic BEI's Model 8301 sensor is a unique inertial instrument capable of detecting angular motion ("jitter") from milliradians to below 1 nanoradian. This sensor has low noise and high bandwidth for space and military pointing applications.



#### Rotary Scanners

- > Quantic BEI rotary optical scanners and dither scanners can be found in military aircraft and combat vehicle vision systems.



#### Dither Scanners

- > Quantic BEI's optical dither scanners are innovative tip-tilt mechanisms which move an optical element to precisely controlled angular positions under servo control. These scanners are stable over time and temperature and use precision flex pivots for smooth, frictionless motion.



The mission of Quantic BEI is to deliver and integrate innovative precision control systems using our unique military, scientific and space market expertise to meet the critical demands of our customers. We aim to develop new solutions and markets by offering a broad range of products and services while maintaining our values and world-class quality and reliability.

## Land

Quantic BEI, has for multiple decades, been the trusted partner for turret positioning for critical ground combat vehicles. From Bradley and Stryker to Abrams and Warrior vehicles, Quantic BEI has designed precision encoders for the most rugged environments. Quantic BEI provides precision technology for a multitude of critical range and ground-based instrument applications including radar, optical tracking, astronomical telescopes, missile launching, and directed energy platforms.



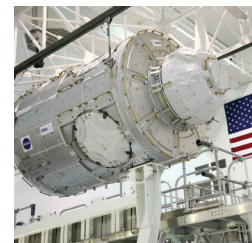
## Air

Quantic BEI provides accelerometers and other vibration monitoring systems for several rotary wing applications and fixed wing aircraft. In the world of fixed wing aircraft, the instrumentation must be able to survive the most extreme environments while also retaining extreme accuracy. Quantic BEI has accomplished this on many fronts. From the T-50 Golden Eagle to the state-of-the-art F-35. Quantic BEI accelerometers can also be found on the Blackhawk helicopter program.



## Space

Quantic BEI has decades of expertise in developing and manufacturing space encoders. More than 90% of the encoders in-orbit today are Quantic BEI encoders. The platforms utilizing a Quantic BEI solution in space include the JPSS-1 (NOAA-20), JPSS-2, GoSat, and GOES weather monitoring satellites. Quantic BEI also delivered integral encoder systems to the Shuttle Remote Manipulator System (Canadarm) and the Hubble Space Telescope. Quantic BEI is participating in the 'new' space market with a cadre of commercial off the shelf products specifically designed to be the optimum solution for Low Earth Orbit (LEO) applications. Utilizing a COTS approach speeds up time to market with the greatest value.



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