

Solligence[®]

The Smart Servo Solenoid Actuator



The Smart Servo Solenoid Actuator Solenoid motion is critical in the function of so many products, from life-saving medical equipment and high-security locking to sortation, manufacturing, and automation. While these silent workhorses seldom fail, certain applications require motion confirmation and a continuous data stream to ensure full system performance.

Solligence, the Smart Servo Solenoid Actuator, integrates sensing capabilities to create closed-loop controlled motion. It provides motion assurance for critical applications and data output for system performance optimization.

ACCURACY



PRECISION



CONFIDENCE



Technology

Artificial Intelligence continuously monitors the motion profile and adjusts parameters to maintain the required actuation time. This enables all other components in your system to operate more effectively and confidently.

More specifically, this technology offers the following advantages:

Actuator Health Awareness

Measures full stroke position vs time to identify trends and to control actuation time, motion profile, and current flow.

Unplanned Downtime Reduction

Functional characteristic trend analysis of the system enables preventative maintenance.

Smart Communication Capability

Digital input triggers motion and a digital output indicates a fault to full-duplex communication protocols such as Ethernet-IP.

IOT Data Reporting Capabilities

All collected data including operating parameters. Communication is generated on a predetermined schedule or on-demand.



Innovation

Solligence can take your application to the next level, offering your customers the innovation they have come to expect.

Zero-bounce controlled motion

Enabled by dynamic current control in the actuator and closed-loop motion control.

Low power supply current requirements

The integrated drive is charged with low current over longer periods of time and uses stored energy to actuate when commanded. This can reduce power supply size and supply wire gauge.

AC or DC Power

Power supply is determined by your specific needs; voltage levels are adapted to a wide range and are based on the Pulse Width Modulation (PWM) capabilities.

Smart actuators are available in rotary, linear, or combinational motion and can be custom configured to include the most basic to the most advanced technology. Some applications benefit from integrating intelligence into the solenoid while others require a tethered approach.

Each application is unique; let our experienced design engineers innovate the perfect solution for your specific needs.

DID YOU KNOW?

Over time, mechanical system wear impacts load characteristics and solenoid motion time resulting in system level issues.

AI algorithms in the smart solenoid, compensate for system wear and extend product life.

**WHY
JOHNSON
ELECTRIC**

Johnson Electric is the leader in motion subsystems. Technology leadership, application expertise and a global footprint make Johnson Electric the ideal partner for differentiated product development projects and supply chain excellence.

Investors of the Rotary Solenoid, Johnson Electric has been manufacturing solenoids for 80 years, building a strong foundation of innovations since 1942.