



Keeping the World Flowing  
for Future Generations

## IQ3 Pro Range

Intelligent Multi-turn and Part-turn  
Electric Actuators

IQ3 Pro electric actuators have an unrivaled ability to provide valve and process operational data, coupled with ease of commissioning, setting new standards for safety and reliability.

### Industry Leading Reliability

- Robust drive train and oil bath lubrication
- Double O-ring sealing IP66 / IP68 (7 m / 72 hours)
- Non-intrusive setup – no cover removal required
- Independent torque and position limit sensing
- Independent handwheel operation
- No loss of valve position, even without power

### Ease of Commissioning

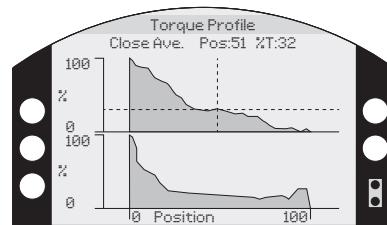
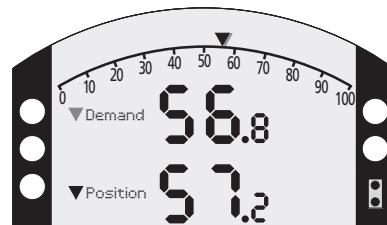
- Large feature rich display
- Control and commissioning via Rotork App, Bluetooth® Setting Tool Pro handset (BTST) or local control knobs
- Non-intrusive configuration, even without mains power

### Data Analysis

- Valve, actuator and process data available
- Viewing on screen or in the control room
- Data download via BTST setting tool and Rotork App

### Asset Management, Diagnostics and Preventative Maintenance

- Configurable data logger functionality
- Service alarms and advanced realtime reporting
- Ethernet allows remote collection of the full data logs over a high bandwidth connection
- Trend analysis and torque reference graphs



### Local Diagnostics and Setup

The large, dual-stacked high-resolution display with 25 mm positional characters delivers unrivaled visibility in all lighting conditions. Combining a static high-contrast positional display with a configurable dot-matrix LCD offers unmatched ease of configuration and data analysis.

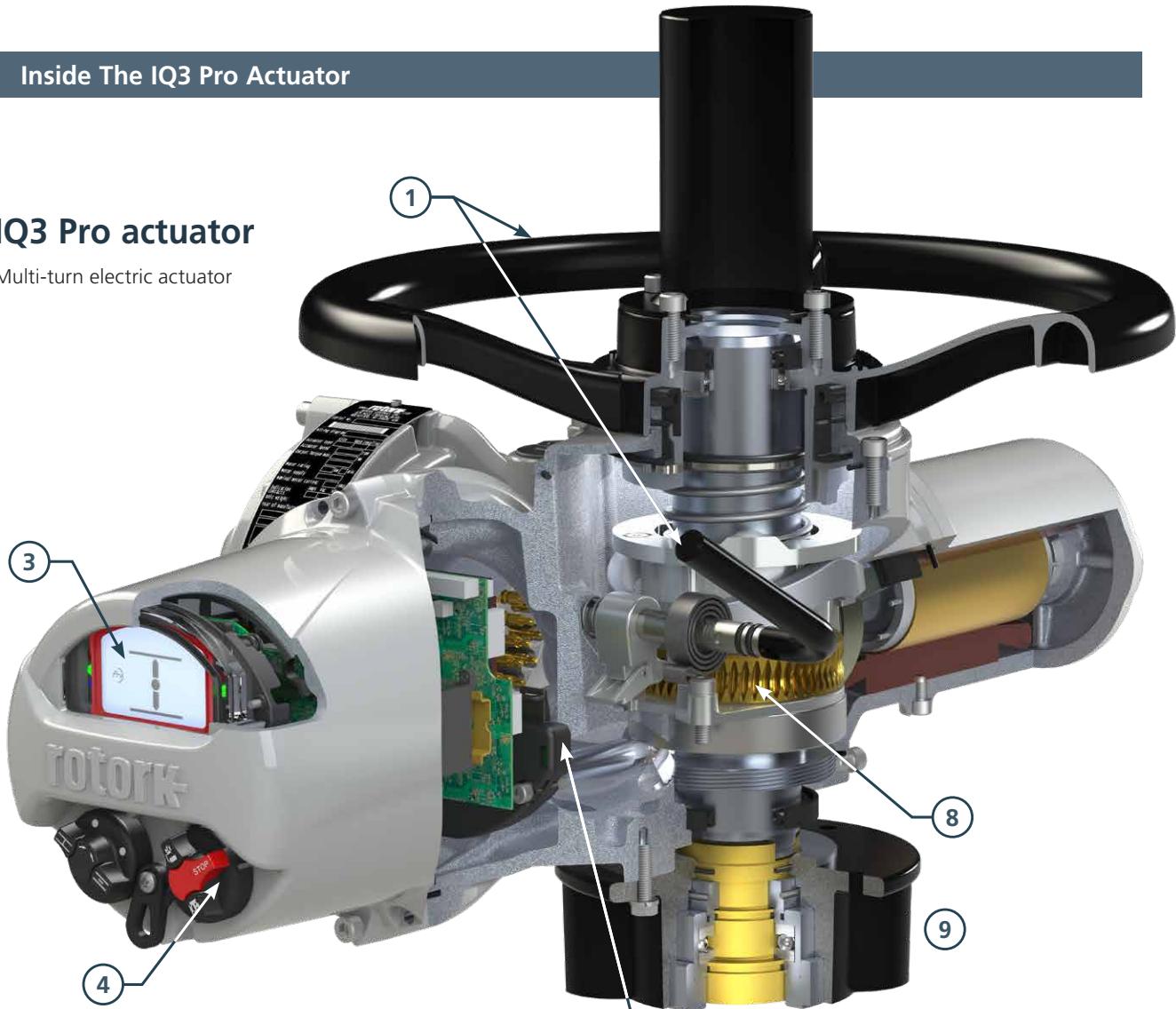
### Integrated Industrial Ethernet Option Card

- Modbus® TCP, EtherNet/IP™ or PROFINET high-bandwidth connection for advanced asset management
- Line, Ring and Star topologies supported
- Option card is fully enclosed within the actuator, maintaining watertight and explosionproof enclosure and certifications

## Inside The IQ3 Pro Actuator

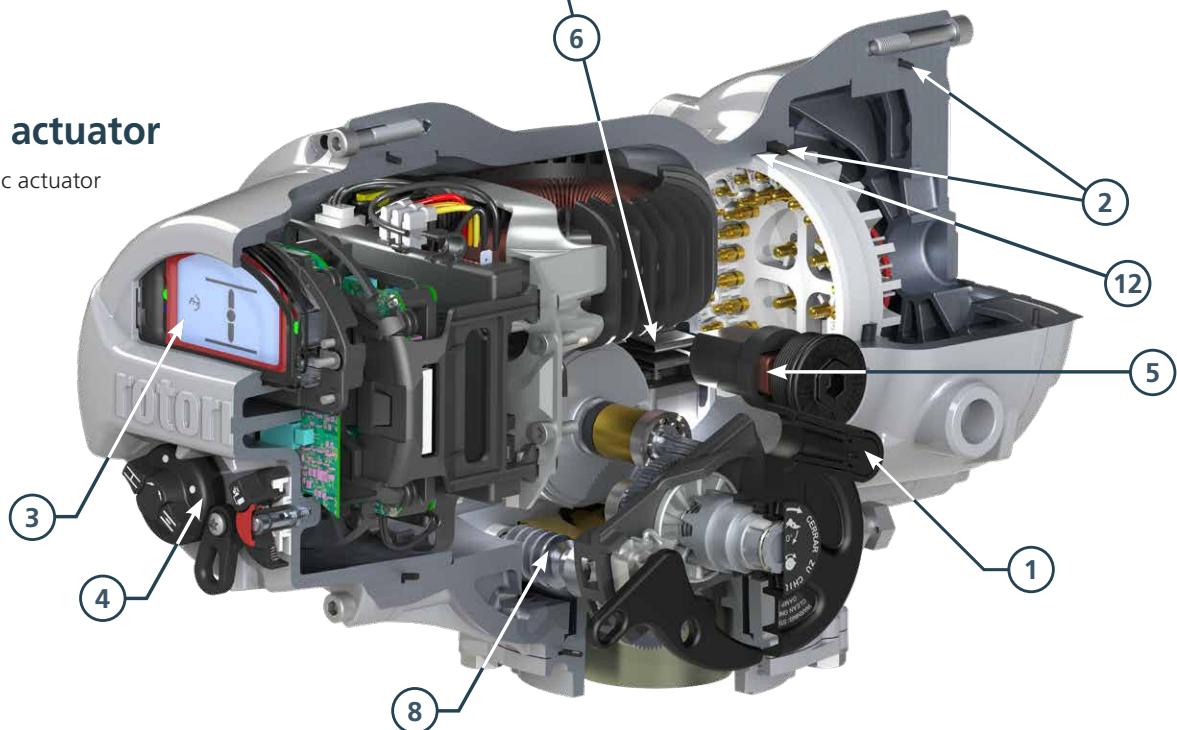
### **IQ3 Pro actuator**

Multi-turn electric actuator



### **IQT3 Pro actuator**

Part-turn electric actuator



### 1. Hand operation

Direct-drive and geared handwheels are sized for effective manual operation of the valve. Handwheel drive is independent of the motor drive and is selected with a lockable lever for safe operation even when the motor is running.

### 2. Environmental sealing IP66/68; 7 m for 72 hours

The double-sealed terminal compartment results in the actuator enclosure being completely sealed, protecting the actuator from environmental ingress.

### 3. Display

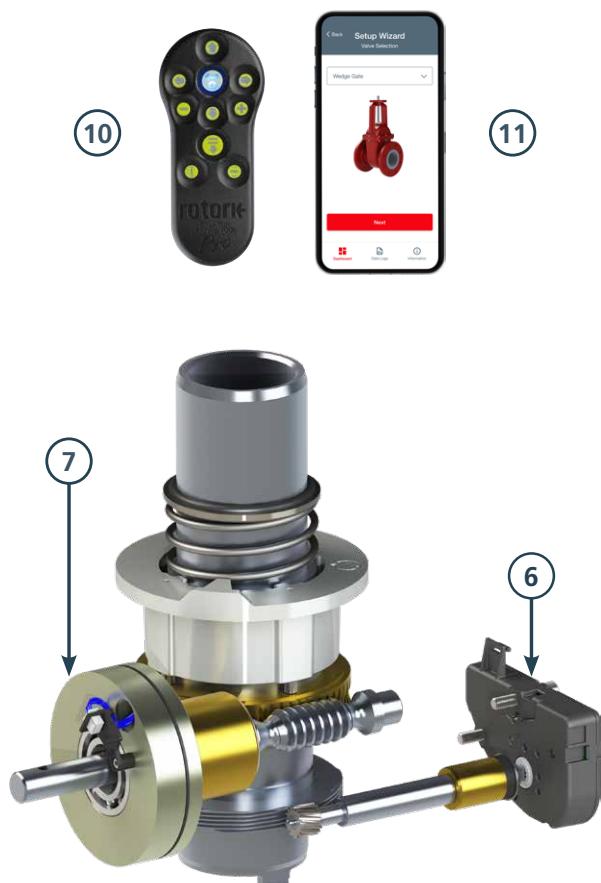
The advanced backlit display has a wide viewing angle making it legible from a distance. The dual mode display allows a high temperature range of operation for position (-50 to +70 °C) in addition to detailed graphical information.

### 4. Local controls

Open/Close and Local/Stop/Remote selectors are non-intrusive, magnetically coupled to the solid state switches inside the cover. This along with double-sealing, further enhances the non-intrusive protection of the actuator.

### 5. Battery

A battery is provided to support the display, remote indication and configuration when no mains power is available.



### 6. Position control

Patented absolute position encoder is provided to enable robust, high accuracy measurement of up to 8,000 actuator output rotations under all conditions, including loss of mains power.

### 7. Torque sensor

State-of-the-art piezo torque sensor for IQ provides reliable torque measurement over a wide temperature range.

### 8. Drive train

Simple, proven, robust and lubricated for life in a self-contained oil bath, with the ability to perform in any orientation.

### 9. Separable bases

For all actuator frame sizes, the thrust and non-thrust base types are separate from the main gearcase facilitating easy installation.

### 10. Rotork Bluetooth® Setting Tool Pro

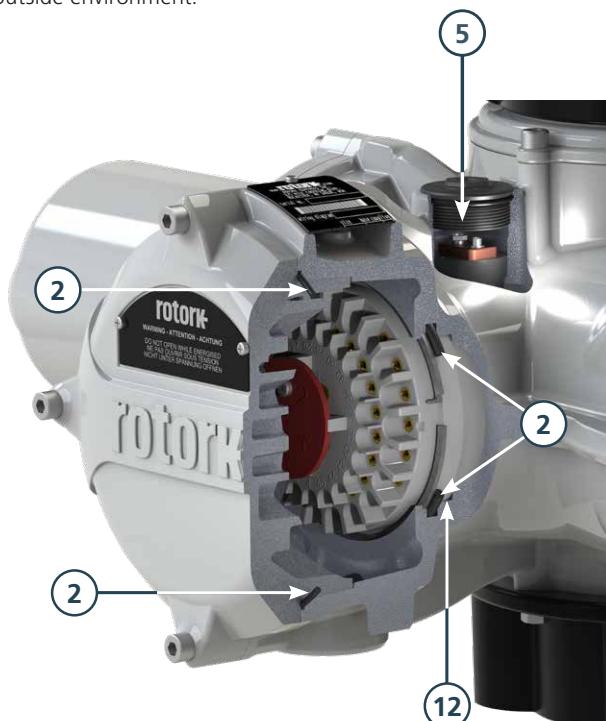
Intrinsically-safe setting tool used for commissioning and data logger download and export.

### 11. Rotork App for smartphones

IQ3 Pro actuators can be operated and fully configured via the Rotork App which also features data log download and export.

### 12. Certified for use in hazardous areas

The Rotork explosionproof Exde enclosure has a flamepath between the main enclosure and the terminal enclosure. This means an explosion on either side of the terminal compartment will not be transmitted to the other side or the outside environment.





### IQ3 Pro

Multi-turn 3-phase electric actuators for isolating, regulating or inching duties (S2 & S3 / Class A & B) of up to 60 starts / hr.

Direct torque output: 14 to 3,000 Nm (10 to 2,213 lbf.ft).

### IQ3S Pro

1-phase versions of IQ3 Pro actuators.

Direct torque output from 10 to 450 Nm (7 to 332 lbf.ft).

### IQ3D Pro

DC powered versions of IQ3 Pro actuators. Voltage ranges available are 24, 48 and 110 VDC.

Direct torque output: 11 to 305 Nm (8 to 225 lbf.ft).

### IQ3H Pro

High speed 3-phase electric actuators provide fast operation with positive seating without back driving. High output speeds and generally irreversible operation provide a self-locking ability.

Speeds up to 259 rpm and torque output: 27 to 397 Nm (20 to 293 lbf.ft).

### IQ3M/ML Pro

Modulating 3-phase electric actuator with solid state reversing starter including an electronic motor 'brake' feature. Fast-response remote control circuits for rapid control.

IQ3M is suitable for up to 1,200 starts / hr (S4 / Class C).

Direct seating torque output: 11 to 544 Nm (8 to 401 lbf.ft).

IQ3ML has a linear output drive providing seating thrust output of up to 43 kN (9,667 lbf).

### IQ3SET Pro

IQ3SET actuator is backwards compatible to the 1960s. This backwards compatibility is for legacy actuators on your site that have non-integral starters (known as "SyncroSET").



### IQT3 Pro

Part-turn 3-phase, 1-phase and DC electric actuators for isolation or regulation duties (S2 & S3/Class A & B) of up to 60 starts / hr.

Direct torque output: 125 to 3,000 Nm (92 to 2,214 lbf.ft).

### IQT3M Pro

Modulating 1-phase, 3-phase and DC versions of the IQT3 Pro actuator. Modulating duty up to 1,800 starts / hr (S4 / Class C). Fast-response remote control circuits for rapid control.

Direct torque output: 125 to 3,000 Nm (92 to 2,213 lbf.ft).

### IQT3F Pro

The IQT3 Pro is also available with a full worm wheel capable of multi-turn rising output (A), multi-turn non-rising output (B) and linear output (L). Typically used for slow, high torque applications such as choke and multi-port valves. Modulating duty cycle up to 1,800 starts / hr (S4 / Class C).

A, B - Direct torque output: 50 to 3,000 Nm (37 to 2,214 lbf.ft).

L - Direct thrust output: 18.8 to 75.8 kN (4,230 to 17,040 lbf).

### IQT3 Shutdown Battery

The IQT3 Shutdown Battery option provides fail-to-position functionality for IQT, IQTM and IQTF actuators in the event of a mains power loss and is available for Ex and non-Ex applications. Note: Not available with IQT3000.

### Remote Hand Station

Remote operation, interrogation and configuration of IQ3 Pro range actuators in hazardous or inaccessible locations. Can be located up to 100 m (328 ft) away from the actuator.

### Special designs

If you require an IQ3 Pro range actuator for duties that are not covered by our standard range, we are happy to discuss custom solutions.

**For detailed IQ3 Pro range information refer to PUB002-197.**

## Contact us now

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