



ICON 3000

Smart and reliable
electric multi-turn
actuator



EXPERIENCE
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Smart and reliable electric multi-turn actuator **ICON 3000**

The extremely reliable and flexible ICON family of electric multi-turn actuators has been for **more than 20 years** a real “icon” across the global market for oil & gas, power and process industry operators. With the latest technological advancement in the new **interface** and **position detection system**, we are taking the ICON a step forward. While keeping up to speed with technology, ICON’s original **kinematic chain** is still representative of a highly perfected engineered solution.

Key Benefits

- Wide range of torques: 30Nm to 1440Nm (22 ft lbs to 1062 ft lbs)
- Speeds up to 173 RPM.
- Extremely reliable direct driven worm gear mechanism.
- Power supply from 24V to 690V, DC, single or three phase.
- Working temperature: -60°C (-76°F) to +85°C (+185°F)
- Upgraded user-friendly configuration menu.
- Backlog register for diagnostics.
- Hall effect non-intrusive push buttons and switch.
- Integrated heating system to protect electronic boards from low temperatures. Additional heaters for extreme environmental conditions upon request.
- Duty cycle up to S4 50% - 1200 starts per hour.

User friendly graphical interface

ICON3000 is equipped with two displays: one is always powered to indicate the valve positioning; the second one shows the text menu with operating information. The **OLED dot matrix display** featured in this release, operates effectively even under the strongest sunlight and extreme temperatures.

Certifications

Atex d, FM (US), FM_C (Canada), IECEx, NEMA, IP, SIL2/3, Atex de*, NEPSI (China)*, EAC_(CU-TR)*, INMETRO (Brazil)*, KOSHA (Korea)*, CCOE (India)*

*contact factory

Wide range of networking protocols

- Foundation Fieldbus®
- Hart®
- Profibus® DPV0, DPV1 and redundant DPV2
- LonWorks®
- Modbus®

Painting solutions for the harshest conditions

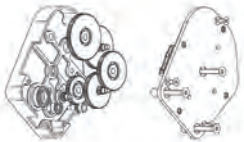
Highest protection in aggressive environments - from salt to desert to deep cold - is guaranteed by numerous certified painting procedures.



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Ultimate mechanical design for absolute reliability

- **Absolute encoder for valve position detection even in the toughest conditions**



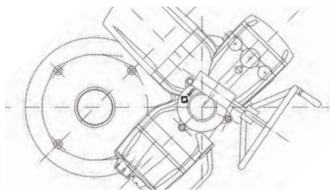
The introduction of a new high accuracy **absolute encoder** allows detecting the valve position even without battery backup in case of main power loss.

- **Widest range of gears to be combined with any valve type**



A wide range of reducers is available to combine every kind of valve with the ICON3000, offering thousands of possibilities among quarter turn or multiturn valves.

- **Handwheel reduction for easy and quick operation**



A special additional reducer allows easier and more efficient manual operation of the handwheel.

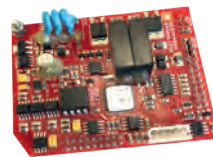
Smart electronic solutions for the most demanding applications

- **Network continuity guaranteed even in case of actuator removal**



An integrated by-pass unit allows removing the ICON3000 from the field without opening the network loop, just leaving a small sealed unit on the ground to maintain bus continuity.

- **4-20 mA analog board for modulation duty**



An analog card can be installed to drive the actuator positioning through a current loop. At the same time, feedback sent by the same board allows reading of the actual valve position.



ICON 3000

Software tools for setup, maintenance and daily field management

A-Manager



For maintenance, commissioning or backlog analysis, the A-manager software connects via Bluetooth or cable. All functional settings can easily be visualized and modified and dozens of parameters can be downloaded.

DCM2 Master Station



ICON3000 is fully compatible with the last release of DCM2, Biffi's ultra-smart gateway, via LonWorks® and Modbus® protocols.



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Biffi reserves the right to change product designs and specifications without notice.

