



Limitorque® QX Series B Smart Quarter-Turn Electric Actuator

Superior reliability, usability and cost of ownership



Experience In Motion



Unmatched reliability and versatility in demanding services

The Limatorque QX Series B (QXb) electric actuator from Flowserve provides unmatched reliability and precision while lowering the cost of ownership in a range of demanding applications.

This next-generation device builds on the proven, state-of-the-art Limatorque QX and MX actuator platforms to provide all the user-preferred features in a quarter-turn, smart actuator package. In addition, Flowserve improved the interface to streamline the user experience and accelerate commissioning by as much as 50%.



Enhance efficiency and sustainability

Reliable flow control automation solutions are crucial for sustainable operations. Flowserve engineered the QXb actuator to maximize dependability and efficiency while enabling the transition to a low-carbon future. Along with a streamlined user experience and advanced diagnostics, it's designed to support your initiatives to consume fewer resources.

Typical industries and applications

Flowserve designed the Limatorque QXb actuator for application versatility and to handle demanding services in:

- Oil and gas
 - Upstream and midstream (choke, isolation and control valves)
- Fresh and wastewater
 - Isolation, air scour and control valves
- Wind energy
 - Cooling water for offshore HVDC converter platforms
- Commercial power
- Chemical
- General industries

Customer benefits and features

Faster commissioning — Simplified multi-language menu and intuitive rotary navigation knob enable up to 50% faster commissioning than previous models.

Improved reliability — Double-sealed IP68 enclosure with separate terminal compartment and non-intrusive control knobs prevent dust and water ingress, eliminating the need for a heater.

More accurate positioning — Advanced brushless DC motors provide more accurate positioning and improve safety while permitting a global range of voltages (single-phase and three-phase ACV and DCV) to be connected without modification.

Enhanced safety — An independent handwheel disconnects the motor and enables manual override, even during motor operation.



Enhanced reliability — Large, high-resolution LCD with adaptive brightness control is easy to read from up to 9 m (30 ft). It can be rotated 180 degrees for viewing in any orientation.

Reduced maintenance costs — Oil bath lubrication eliminates re-greasing while enabling mounting and storage in any orientation.

Backward compatibility — Easy electronics interchangeability enables updating of older models, reducing costs and providing future-proofing.

Display real-time actuator status — The advanced display provides real-time torque graphs, alarm and event logs, and other data in high resolution. There's also a real-time clock that time-stamps data logs for asset management functions and lifecycle analysis.



Available models

Parameter	Units	Model				
		QX-1	QX-2	QX-3	QX-4	QX-5
Torque ratings	Nm	135	339	542	1,016	2,031
	ft-lbs	100	250	400	750	1,500
Operating times	Seconds, Minimum	5	8	15	30	60
	Seconds, Maximum	20	30	60	120	120
Flange	ISO 5210	F05/F07/F10	F07/F10	F10	F12/F14	F14
	MSS SP-102	FA05/07/10	FA07/10	FA10	FA12/14	FA14

Specifications

Temperature range	-30°C to 70°C (-22°F to 158°F)
Torque	135 to 2,031 Nm (100 to 1,500 ft-lbs)
Conduits	(3) 1.0 in. NPT (standard) (3) M25 (optional) Optional fourth conduit entry (1) 1.25 in. NPT or M32
Network connections	Modbus DDC; Modbus TCP/IP; Profibus DP; Profibus DP with RedCom; Foundation Fieldbus H1; Profibus PA; DeviceNet; HART
Design standards	EN15714-02 - Industrial valves, Actuators, Part 2; ISA-96.02.01-2016- Guidelines for the Specification of Electric Valve Actuators; IP68 Enclosure Rating
Test standards	AWWA C542 - Electric Motor Actuators for Valves and Slide Gates; ASTM B117 - Standard Practice for Salt Spray Tests; UL1709
Certificates/approvals	FM, ATEX, IECEx, CCC; consult factory for different hazardous duty classifications.

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