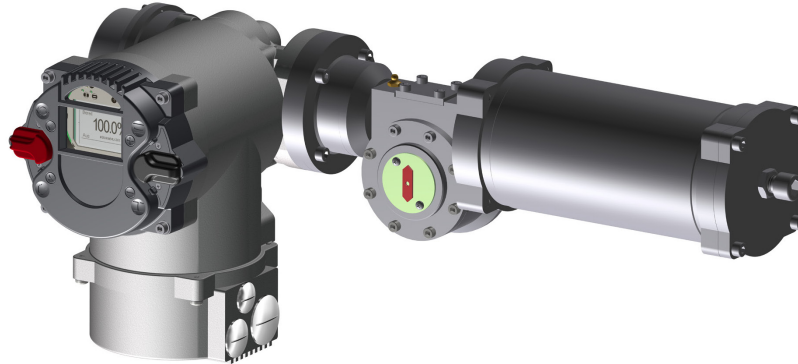


EIM RTS FQ Fail-Safe Quarter-Turn Actuator



Smart and Compact

FAIL-SAFE QUARTER-TURN ACTUATOR

- Reliably drive valve in fail-safe position with a mechanical spring unit
- Control: integrated controls with frequency inverter and brushless DC motor
- Direct coupling of the fail-safe with the valve shaft
- Fail-safe triggering selectable in case of drop-off 24 VDC fail-safe signal or main power supply
- Fail-safe speed adjustable
- Modulating operation up to 1200 starts / hour possible (S4 operation)
- Configurable fail-safe operating time and ramp speed
- Exclusive spring based mechanical energy storage – no hydraulics or battery required
- No need of periodical inspections – self-testing with every stroke
- Partial stroke test
- Low maintenance
- Integrated SMARTCON controls with wireless Bluetooth capability for configuration, monitoring, and diagnostics of key parameters
- Data Logger for diagnostics
- SMARTCON Android application
- Multi-lingual user-interface

Technical Details

- Switch off thrust electric: max. 2,000 Nm (1,475 lbs. ft)
- Modulating torque: max. 1,000 Nm (730 lbs. ft)
- Fail-safe torque: max. 1,000 Nm (730 lbs. ft)
- Adjustable positioning time (Electric): 15 - 650 sec
- Adjustable fail-safe operating time: 1–5 sec
- Non-intrusive limit setting
- Available for power supply:
 - 24 VDC
 - 1x 115V – 230 VAC, 50/60 Hz
 - 3x 380 – 480 VAC, 50/60 Hz
- Housing Material: Aluminum
- Standard NEMA 4 enclosure
- Certification: ATEX, CSA, UL, IECEx

Optional Features

- Analog position feedback 0/4-20mA (2-wire)
- Relay board for 250 VAC, 2A with 4 or 6 outputs
- Networking (Modbus RTU, HART, Foundation Fieldbus, Profinet, Profibus)
- Mechanical manual override
- PID controller

TYPE		FQ-03	FQ-06	FQ-10	FQ-20	FQ-30
Max Electric Torque	max. lbs. ft (Nm)	220 (300)	440 (600)	738 (1000)	1475 (2000)	2210 (3000)
Max Fail-safe Torque	max. lbs. ft (Nm)	110 (150)	220 (300)	369 (500)	730 (1000)	1100 (1500)
Modulating Torque	max. lbs. ft (Nm)	110 (150)	220 (300)	369 (500)	730 (1000)	1100 (1500)
Fail-safe Function		Selectable opening and closing (CW/CCW)				
Fail-safe Trigger		Loss of 24 V DC Fail-safe signal or main power supply (selectable)				
Positioning Speed - Electric	sec	14 - 420	14 - 420	10 - 250	30 - 850	44 - 620
Positioning Speed - Fail-safe	sec	1 - 5	1 - 5	3 - 10	3 - 10	10 - 30
Available Travel	°	90 +/- 5° with mechanical end-stop				
Mode of Operation	On/off Duty	S2-15 min				
	Modulating Duty	S4 – 1200 starts/hour – 40% duty cycle				
Manual Override		Optional				
VALVE-MOUNTING						
Flange	ISO 5210	F07/F10	F10/F12	F12/F14	F14/F16	F14/F16
Max Stem Diameter	in (mm)	1 (25.4)	1.57 (40)	1.92 (49)	2.36 (60)	2.36 (60)
Max Square (Flats)	in (mm)	0.86 (22)	1.25 (32)	1.61 (41)	1.88 (48)	1.88 (48)
ENVIRONMENTAL CONDITIONS						
Weather Protection		IP67 / NEMA 4				
Ambient Temperature		- 40° C (-40°F) to +60°C (140°F)				
Corrosion Protection		K2 for aggressive atmospheres				
Painting/Color		Two component painting / RAL 7024				
Weight approx.	lb. (kg)	94 (43)	116 (53)	313 (142)	330 (150)	264 (120)
MOTOR - BRUSHLESS TECHNOLOGY						
Isolation Class		Insulation class F, max. 155° C (311°F) permanent temperature				
Power Supply	V	24 VDC or 115-230 VDC or 1x 115-230 VAC, 50-60Hz or 3x 380-480 VAC, 50-60 Hz				
	Nominal Current	24 VDC (Option Not Available wit FQ-10, FQ-30)				
Power Consumption Idle with Fail-safe Brake		2.5 A				
Power Consumption Idle with Fail-safe Brake		40 W				
ACTUATOR CONTROL						
Technology		Integrated processor control unit with frequency technology for variable speed control				
Control Elements		<ul style="list-style-type: none"> · With additional language independent symbols · Selector switch LOCAL - OFF - REMOTE (lockable) · Control switch OPEN - STOP - CLOSE contact less sensor technology 				
Local Display		Backlit LCD display, can be rotated in 90 degree steps				
LEDs		4 programmable red, green, blue LEDs for operation - readiness - warning - and error messages				
Communication		Infrared communication interface and bluetooth technology including ANDROID App for simple configuration				
Inputs		<ul style="list-style-type: none"> · 5 configurable binary (discrete inputs) control inputs: OPEN - STOP - CLOSE - EMERGENCY OPEN - EMERGENCY CLOSE · Nominal voltage 24VDC 				
Outputs		<ul style="list-style-type: none"> · 8 configurable binary (relay) outputs: READY - OPEN - CLOSE - RUNNING OPEN - RUNNING CLOSE - TORQUE - LOCAL - REMOTE · Power supply 24 VDC +/- 6V (selectable internal or external) 				
FUNCTIONS						
Standard		<ul style="list-style-type: none"> · Switch-off mode adjustable, travel or torque dependent · Torque adjustable: 25-100% of max. torque · Adjustable speed for process optimization and emergency speeds · Password protection (reading and/or writing) · Multi-language display · Status indication for binary inputs/outputs and analog signals on LCD Display · Data logging for analysis and service · Motor protection by Positive Temperature Coefficient sensors 				
ELECTRICAL CONNECTION						
Cable Entry		3 metric threaded boreholes for cable glands: M40x1.5 / M32x1.5 / M25x1.5 (Optional: 2x NPT1/2" + 1xNPT1")				