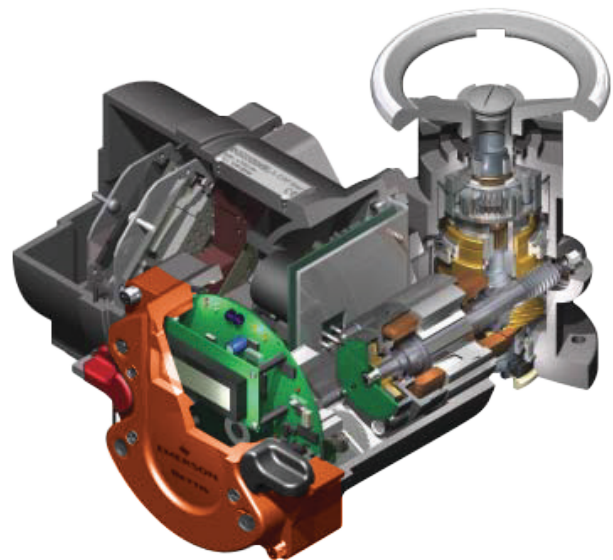
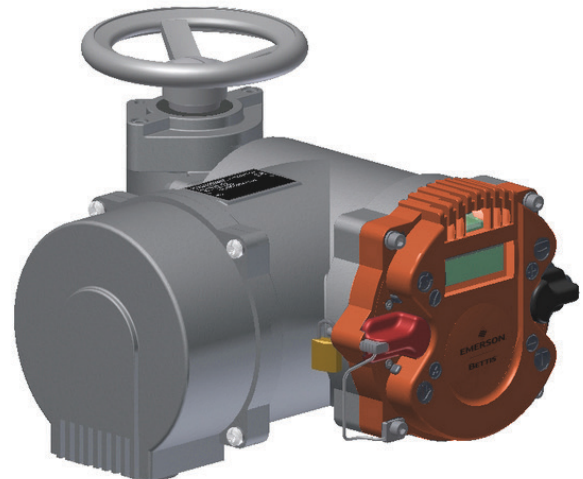


Bettis™ RTS CM Series

Smart Compact Multi-Turn Actuator

Main Features

- CM Series suitable for actuation of multi-turn valves
- Both light weight and delivers torque in small envelope
- Non-intrusive setup
- On/Off and continuous modulating duty
- Adjustable Speed (2 sec – 54 sec)
- Independently adjustable soft starts / stops
- Torque measurement for protection and diagnostics
- Fail in last position. For fail-safe reference FL and FQ data sheets.
- Reliable and highly accurate positioning control
- DC, single phase, three phase power supply options
- Clutchless handwheel design
- Local User Interface with wireless bluetooth control capability for configuration, monitoring, and diagnostics of key parameters
- User Application available for Android Devices
- Process Control via optional onboard PID controller
- Multilingual user interface



TYPE		CM-32	CM-64
Adjustable Max Torque	max.lbs.ft (Nm)	23 (32)	47 (64)
Min Torque	max.lbs.ft (Nm)	5.9 (8)	11.8 (16)
Modulating Torque	max.lbs.ft (Nm)	12 (16)	23.6 (32)
Adjustable Speed Range	RPM	2.5 up to 70	
Adjustable Turns	max.	0.25 up to 100 with travel sensor non-intrusive through switches adjustable	1 up to 300 with travel sensor non-intrusive through switches adjustable
Operation Mode	On/Off duty	S2-15 minutes	
	Modulating duty	S9	
Manual Operation		Switching free, overlaid, without lever	
VALVE-MOUNTING			
Flange		F7/F10 F10 (ISO 5210)	
Output Shafts		A / Am	
Max Valve Stem Diameter	in (mm)	0.78 (20)	1.25 (32)
OPERATING CONDITIONS			
Ingress Protection		IP66 (NEMA 4x), IP67 (NEMA 6) , IP68	
Ambient Temperature		-40 °C to + 60 °C	
HOUSING			
Material		Aluminum	
Enclosure		Weather-proof / Explosion-proof (optional)	
Certifications		1ph, 24VD – CSA NEC 500 / NEC505, ATEX, IECEx, LVD 3ph - ATEX	1ph, 24 VD – CSA NEC505, ATEX
Coating		High quality two component polyurethane paint system-C3 ISO12944-5	
Approximate Weight	lbs. (kg)	20.9 (9.5)	30.8 (14)
MOTOR			
Isolation Class		Brushless DC Motor	
Isolation Class		Isolation Class F, max. 155 °C permanent temperature	
Power Supply	V	24 - 230 V DC *, Single Phase 115 V - 230 V +/-10%, Three Phase 380 V - 480 V +/-10% (*restrictions apply)	
Current Consumption	A	2.25	
Power	W	250	
ACTUATOR CONTROL			
Electronic with Frequency-Technology		Integrated processor control unit with frequency-technology for variable speed control	
Control Unit			
Control Elements		<ul style="list-style-type: none"> · Selector switch LOCAL - OFF- REMOTE · Control switch OPEN - STOP - CLOSE contact less sensor technology · Language independent symbols 	
Control Functions		<ul style="list-style-type: none"> · Full stroke test · Partial stroke test 	
Local Display		Backlit LCD display, can be rotated in 90 degree steps	
LEDs		Programmable LED's for operation, readiness, warning and error messages	
Communication		Infrared communication interface for programming and saving operation data	
Control			
Inputs		<ul style="list-style-type: none"> · 5 configurable binary (discrete) control inputs: OPEN - STOP - CLOSE - EMERGENCY OPEN - EMERGENCY-CLOSE · Power supply: 24 V DC (max. 30 V DC) - current consumption with 24 V DC: typical 5mA · The common ground of the inputs is optical isolated from the rest of the electronics · Analog control 4 - 20 mA (2 wire) 	
Status Indication			
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 V DC +/- 6 V (per actuator or through control system) · Max. allowed current per output: 50mA (short-circuit-proof) · Max. allowed current for all outputs with power supplied by actuator: 150 mA · Max. allowed current for all outputs with power supplied by control system: 250 mA · All outputs are optical isolated if power is supplied by control system 	
Voltage Input and Output			
Power Supply - External		<ul style="list-style-type: none"> · Input power range: 20-30 V DC max current consumption 320mA or 100mA in current save mode · Status indication also in case of a main power supply failure 	
Power Supply - By Actuator		<ul style="list-style-type: none"> · Output voltage: typical 22 V max output current 150mA · Reference ground is the common ground of the control unit and of the analog inputs and outputs 	
Functions			
Standard		<ul style="list-style-type: none"> · Switch-off mode adjustable: travel or torque dependent to valve type · Torque/Force adjustable: 25-100% of max torque/force · 4 intermediate positions between 0 and 100% in both directions parametrizable · Step-mode operation with adjustable STEP-START, STEP-STOP, RUNNING, and BREAK TIME in both directions · PID positioner for 2 input signals 0/4 - 20 mA (setpoint, external actual value) · Writing and reading protection via password · Multilingual display indication: German, English, Czech, Russia and Danish · Status indication of binary inputs and outputs and of the analog signals on LCD display · Data logging for analysis and service · History data for service planning and error analysis · Motor protection with thermo switches in motor 	
Electric connection			
Cable Entries		3 metric threaded holes for cable glands: Weather-proof 1xM40, 1xM32, 1xM25 / Explosion-proof 1xM40 + 2xM20	
OPTIONS			
Digital Communications		Modbus RTU, ProfiBus, ProfiNet, Foundation FieldBus HART Platforms	
Relay Board		250 V AC, 2 A with 4 outputs	
Analog Position Transmitter		0/4-20 mA (2-wire)	
Coating		4 layer with Epoxy under coat for increased corrosion protection – C5-I, C5-M ISO12944-5	