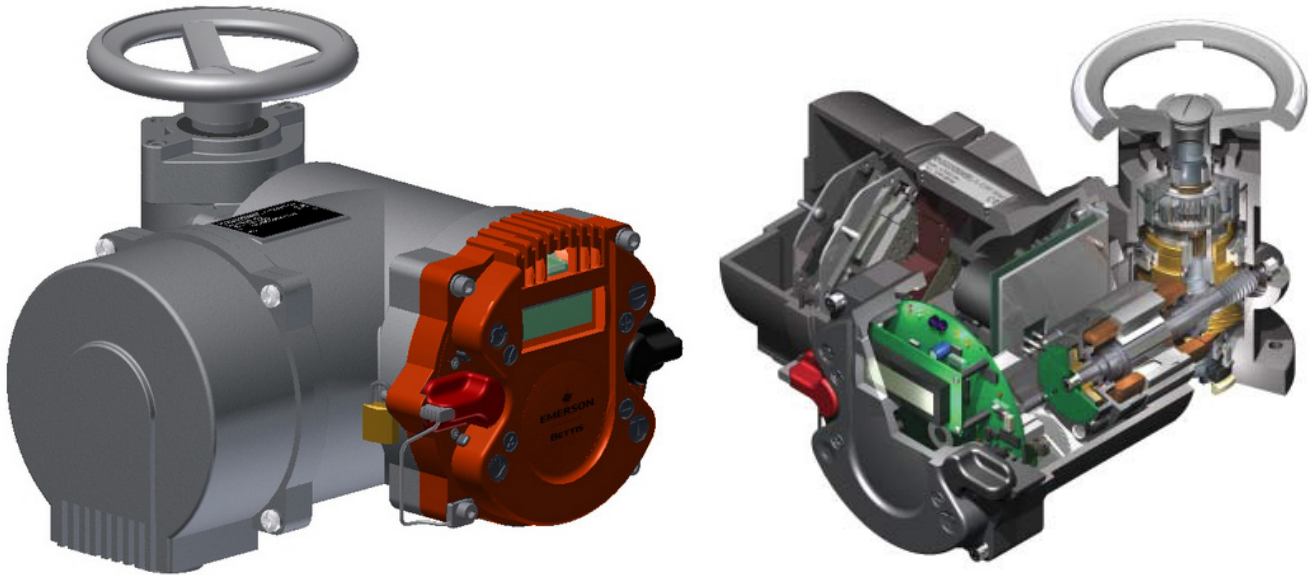


Bettis RTS CM Compact Multi-turn Actuator



Smart Compact Multi-Turn Actuator

Main Features

- CM Series multi-turn actuators up to 64 Nm that are both light weight and deliver a small footprint
- Control Unit: Integrated actuator control unit with frequency inverter technology and Brushless DC motor
- On/off operation and modulating duty
- DC, single phase, three phase options
- Adjustable speed and torque
- Non-intrusive setup
- Available in weatherproof and explosion proof construction
- Handwheel without declutch lever
- High efficiency planetary gear train
- Integrated SMARTCON controls with wireless Bluetooth capability for configuration, monitoring, and diagnostics of key parameters
- Data Logger for diagnostics
- SMARTCON Android application

- Optional PID Positioner
- Multi-lingual user-interface

Technical Details

- Maximum Torque: 64 Nm
- Maximum Modulating Torque: 32 Nm
- Adjustable Speed Range: 2.5 up to 72 rpm
- Adjustable Turns: 0.25 - 300 turns
- Power Supply: 24 VDC, Single Phase 115V-230V +/-10%, Three Phase 380V-480V +/-10%
- Housing Material: Aluminum
- Standard NEMA 4 enclosure
- Certification: ATEX, CSA, UL, IECEx

| TYPE | | CM-32 | CM-64 |
|---|-----------------------|--|---|
| Adjustable Maximum Torque | max. Nm (max. ft lbs) | 32 (23) | 64 (47) |
| Minimum Torque | max. Nm (max. ft lbs) | 8 (5.9) | 16 (11.8) |
| Modulating Torque | max. Nm (max. ft lbs) | 16 (12) | 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 | On/Off duty S2-15 minutes | |
| | Modulating duty | Modulating duty S4 - 1200 cycles/hour - 40% duty cycle | |
| Manual Operation | | Switching free, overlaid, without lever | |
| VALVE-MOUNTING | | | |
| Flange | | F7/F10 F10 (ISO 5210) | |
| Output Shafts | | A / Am | |
| Max Valve Stem Diameter -Ø | | 20 mm 32 mm | |
| OPERATING CONDITIONS | | | |
| Protection Degree | | IP66, IP67 | |
| Ambient Temperature | | -40°C to + 60°C | |
| Corrosion Protection | | K2 for installation in power plants, waste water plants with aggressive atmosphere | |
| Painting / Color | | 2 components painting / RAL7024 | |
| Weight | | 9.5 kg | 14 kg |
| MOTOR | | | |
| Isolation Class | | Brushless DC Motor | |
| Isolation Class | | Isolation class F, max. 155°C permanent temperature | |
| Power supply | V | 24 VDC *, Single Phase 115V-230V +/-10%, Three Phase 380V-480V +/-10% (* Restrictions apply) | |
| Current Consumption | A | approx. 2.25 | |
| Power | W | approx. 250W | |
| 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 | |
| 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 inputs) control inputs: OPEN - STOP - CLOSE - EMERGENCY OPEN - EMERGENCY-CLOSE · Power supply: 24VDC (max. 30VDC) - current consumption with 24VDC: 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 24VDC +/- 6V (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: 150mA · Max. allowed current for all outputs with power supplied by control system: 250mA · 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: 20-30VDC 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 22V, 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 0/4-20mA (setpoint, external actual value) · Writing and reading protection via password · Multi-lingual display indication: German , English, Czech, Russia and Danish · Status indication of binary inputs and outputs and also 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: M40x1.5 / M32x1.5 / M25x1.5 | |
| OPTIONS | | | |
| Explosion proof Network - Modbus RTU, HART | | Relay board for 250VAC, 2A with 4 or 8 outputs Analog position indication 0/4-20mA (2-wire) | |