

## iVM Range Features

iVM Range non-intrusive electronic actuators are designed for multi-turn operating applications on valves and dampers.

### Models come with:

- Direct output torques ranging from 15 N•m (11 lb•ft) to 400 N•m (296 lb•ft)
- Indirect output torques when coupled with gearbox up to 2400 N•m (1776 lb•ft)
- High efficiency brushless DC motor technology
- Field selectable output speeds ranging from 15 RPM to 120 RPM
- Output speed can be changed in both directions
- Output torque remains constant when output speed changes
- Easily viewable large multi-language backlit LCD display
- Non-intrusive reed switches allow for easy actuator configuration and local operation
- High grade aluminum alloy enclosures
- Exteriors protected with a durable polyester powder coating
- Double O-ring sealing prevents moisture ingress into controls enclosure
- Enclosures meeting the sealing standards of CSA and NEMA Type 4X along with IP68 Ingress Protection (8 metres for 120 hours)
- Self locking EPI-CYCLICAL gear train with minimum backlash prevents back driving
- Oil lubricated drive train
- Lockable Manual Handwheel Override which when engaged prevents electrical operation
- Mounting base conforming to ISO 5210 standard
- Standard Operating Temperature range of -20°C to +70°C (-4°F to +158°F)
- Standard voltages of 220VAC, 1PH, 60Hz, 220VAC 3PH, 60Hz, 380VAC, 3PH, 60Hz ±10%
- ON/OFF and MODULATING Control as standard
- AI, AO, DI, DO modules as standard
- Analog sensitivity range 0.0 to 5.0% of the total stroke (Default value is 1%)
- Modbus and Profibus communication offered as standard
- Bluetooth supports datalogging through APP
- Conforms to duty performances of EN 15714-2 Electrical Actuators For Industrial Valves
  - o Class A – On/Off – 15 minutes running time per hour based on an average load of at least 30% of rated torque

- Class B – Inching – 30 starts per hour with an average load of 30% of the rated torque
- Class C – Modulating – 1200 starts per hour with an average load of 30% of the rated torque and a cyclic duration of not less than 25%
- Internal 24V DC control voltage offered as standard (10W maximum load capacity)

**Additional Features:**

- Standard 4 SPDT dry contacts (1A@250V AC) for indication purposes
- Relay contacts are available as both NO (normally open) and NC (normally closed)
- Relay output modes: No Output, Full Close, Full Open, Torque Off Close, Torque Off Open, Torque Off Close or Open, Fault Signal, Signal Flash, Actuator Ready, Local/Remote, Motor Temperature Fault, Motor Temperature Alarm, Maintenance Signal, Moving Close, Moving Open, DI Module Fault, AI Module Fault
- Settings are hierarchical password protected to enforce security
- Automatic phase correction (3 phase models)
- Phase lost protection alarm (3 phase models)
- Built-in Resettable Motor Thermal Protection
- Independent Settable Open and Close Torque Switches
- Jammed Valve Protection (Torque switches can be set in the range of 30% to 100% of rated torque)
- Torque can be adjusted within a user selectable end position range
- Output speeds slow down within the user selectable end position range
- User selectable re-try efforts 0-5. When actuator torque trips in mid travel the actuator will travel back in the opposite direction about 3% and then travel forward again to see if it can pass the point where the torque trip occurred
- Dedicated ESD (Emergency shutdown) Control Input

**Optional Features:**

- Extra 4 SPDT dry contacts (1A@250VAC) for indication purposes
- Other voltages
- Heater
- 110V AC control voltage
- Explosionproof Enclosures for Hazardous Environments (Pending)