EIM Electric Actuator and Controls
Total Electronic Control In A Non-Intrusive Design

EIM™

EMERSON™

EIM™ is a recognized brand leader from Emerson Process Management – Valve Automation. The EIM brand, established in 1949, has pioneered the industry with innovation and technical performance. EIM actuators and controls have myriad applications. They are found in virtually every part of the energy and hydrocarbon processing industries – oil and gas, power, refining chemical and petrochemical. In addition, EIM actuators and controls have established a significant track record for outstanding performance in water/wastewater, food and beverage, pulp and paper, and marine applications. After undergoing rigorous quality checks, EIM products are sold and serviced through Emerson's strategically located World Area Configuration Centers, distribution partners and knowledgeable technical service teams. Local inventory is available in order to ensure a swift response to any customer requirement.

"EIM electric actuators have been operating quarter-turn and multi-turn valves for more than 60 years.

EIM offers a broad range of frame sizes, horsepower ratings and output speeds designed to fit your applications.

EIM is ISO 9001 certified. Products are internationally qualified for various weather-tight and hazardous environments."

TEC2000 Electric
Proven mechanical design based on EIM Series 2000 with Total Electronic Control in a non-intrusive design

- Quarter-turn or multi-turn control using Absolute Position Detector (APD) continuously monitors valve position – no batteries required
- Torque measurement is responsive during motor and handwheel operation
- Separate, dual-sealed terminal chamber houses primary fuses; Automatic resetting secondary protection; Highly legible terminal blocks with pre-inserted, plated screws
- Local control knobs do not penetrate controls compartment
- Password protected set-up using local control knobs, PC or Bluetooth
- Standard discrete control, optional Futronic™ analog controllers, and Controlinc™ digital network communication including Modbus, Foundation Fieldbus, Profibus & DeviceNet
- 1-ph and 3-ph models
- ESD & PST Functionality

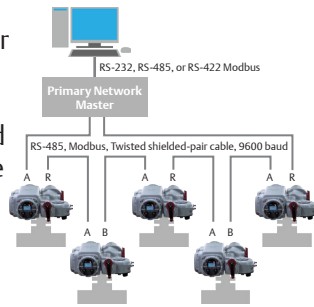### TEC2000 IconoText Local and Remote Display
Large, easy-to-read message screen

- Local Display Module (LDM) with IconoText screen simultaneously shows simple language and icons for easy setup, diagnostics and parameter checks on two 16-character text lines
- Continuous position indication, torque bar graph, moving animation symbol, actuator direction moving and LED indication lamps
- Patented Remote Display Module (RDM) can network two modules up to 4000 feet (1.2 km) from actuator. Ideal for hazardous and inaccessible areas. RDM functions same as the Local Display Module (LDM). One RDM is powered by TEC2000 24VDC power. Second RDM is powered by user 115/220 VAC

2-wire single-twisted pair

Infrared remotes have a very limited range (1m [3 ft.])

Remote control up to 1.2 km (4000 ft.)

Controlinc™ Modbus RTU Master Stations

- Two data paths to each device from network master
- Open-circuit and short-circuit protected
- Redundant cabling included
- Long cable distances can be installed
- Maximum distance between valves can be up to 1500 meters (5000 ft.)
- Total network distance can be up to 320 km (200 miles)
- Maximum number of valves in network can be 254
- Redundant "hot-standby" network master option available

- Enhances system performance by off-loading process and network management from the host computer
- Functions as network manager, data concentrator, improving performance and reliability
- Supports parallel, ring, and fully redundant networks
- M250 redundant hot-standby Master Station with touchscreen supports 250 actuators up to 200 miles. Rack or desktop mounted
- M124 redundant hot-standby Master Station with key pad and LCD screen supports 124 actuators up to 200 miles. Rack, desktop or NEMA 4X stainless steel cabinet

HQ Series Electric

Quarter-turn actuators for butterfly, ball and plug valves and damper control

- Lightweight and compact
- Torque capacities from 40 to 2,170 Ft-Lbs (54 to 2,942 Nm)
- Declutchable handwheel which can be padlocked to prohibit unauthorized operation
- Most units have double-reduction self-locking worm gear drives. No need for motor brakes

Controlinc™ Network Controls

- No proprietary protocols
- Foundation Fieldbus, Profibus DP with RedCom, DeviceNet, Modbus RTU, Ethernet TCP/IP
- Reduces installation and commissioning time and wiring cost
- Improved efficiency with real-time diagnostics and alarming
- Easily expand system and upgrade existing TEC2000 actuators
- For block and modulation service

HQ RBB Electric

Brings new level of security to EIM's time-tested HQ product line

- Uses rechargeable lithium battery and 24VDC motor for fail-safe operation during power loss
- Can operate locally or remote five times/hour in fail-safe mode. Discrete or analog control
- Operates on single-phase 115 or 230V, 50/60Hz power
- Highly visible LED status lamps
- Padlockable local control station
- Declutchable manual override for emergency handwheel operation
- Mechanical position indicator continually confirms valve position
- Double-reduction, self-locking worm gears with no need for motor brakes
- Standard NEMA 4X and 6, IP67 enclosure, Optional 6P/IP68 submersible

Numerous hazardous area certifications are available for the TEC2000 series

European (ATEX – 94/9/EC) Certification; Cenelec Norm EN60079-0; EN60079-1 and EN60079-31
- EExd IIB T4. ATEX II 2G
- EExd IIB + H2 T4. ATEX II 2G
- EExd IIB T4A. ATEX II 2G
- EExd IIB + H2 T4A. ATEX II2G
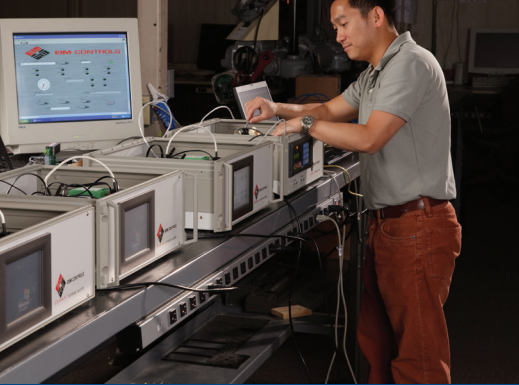- ATEX - II 2 GD, EEx d IIB T4 or EEx d IIB 120oC (T4), IP68

USA (Factory Mutual) Certification; NEC Article 500
- Class I, II and III, Groups C, D, E, F, G, Division 1, T4
- Class I, II and III, Groups C, D, E, F, G, Division 1, 120°C (T4)
- Class I, Group B, Division 1, T4

Canada (Canadian Standard Association) Certification
- Class I, II and III, Groups C, D, E, F, G, Division 1, T4
- Class I, II and III, Groups C, D, E, F, G, Division 1, 120°C (T4)
- Class I, Group B, Division 1, T4

> "Complete test lab with range of equipment allows EIM to load test any actuator at any electrical supply.
>
> Quality assurance standards are strictly followed at all stages of manufacture.
>
> EIM has an extensive network of field service personnel using factory - approved parts.
>
> Full Retrofit Capability is available from our World Area Configuration Centers."

The Gold Seal Promise

Gold Seal service is a benefit that EIM customers have come to expect over the years. It represents the company's goal to consistently deliver its brand promise of providing reliable, quality products that are backed up by competent local service. The adopted Gold Seal quality standards and concept resonate through the manufacturing process and into our WACC, where a fair degree of integration and automation take place, and ultimately to customer locations where site commissioning work is performed. The Gold Seal philosophy is founded on an extensive service and maintenance training program that must be successfully completed by all personnel responsible for delivering this service to our customers. The training program covers all EIM actuator maintenance and repair details, focusing on both mechanical and electrical aspects. Recertification is mandated every two years to ensure unparalleled, consistent customer service.

With Gold Seal expertise, our service personnel are also capable of providing essential support to network providers and beyond, to contribute to a successful plant start-up.

World Area Configuration Centers (WACC) offer sales support, service, inventory and commissioning to our global customers. Choose the WACC or sales office nearest you:

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