

Bettis™ EHO Electro-Hydraulic Operator

A Complete, Proven Solution for ESD and Fail-Safe Applications



BETTIS™


EMERSON™
Process Management

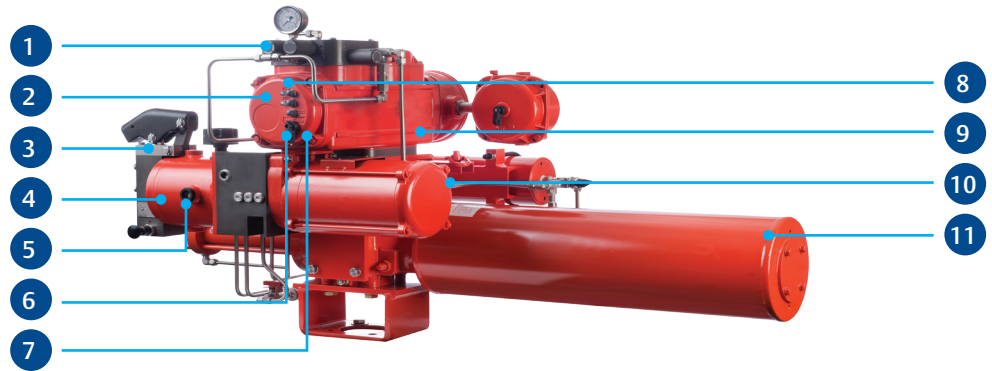
Emerson Process Management developed the Bettis™ EHO Electro-Hydraulic Operator drawing from the experience and technologies integration from multiple Emerson companies.

Executing an Emergency Shutdown (ESD) in a remote region requires ultra-reliable valve control, fast-stroking options and self-contained power. The Bettis EHO Electro-Hydraulic Operator utilizes a dependable spring-return actuator for the fail-safe stroke combined with an integral hydraulic power pack and electronic control module for remote valve operation.

The versatile Bettis EHO Electro-Hydraulic Operator is designed for the toughest environments and critical applications. With this product, you have an actuator system with field-proven technology and a single source of accountability.



Rely on the Bettis EHO for Critical Applications



No.	Description
1	Hydraulic Manifold
2	Local Open/Close/Stop Push Buttons
3	Hand Pump
4	Reservoir
5	Sight Level Gauge
6	Local Lockable Remote/Local/Offline Switch

No.	Description
7	Local Display and Operation
8	Local Open/Close Light Display
9	Control Enclosure
10	Motor
11	G-Series Hydraulic Spring-Return Actuator

Product Specifications:

Quarter Turn Torque Output:

Spring Return:

- 10,015 to 707,696 in-lbs

Double Acting:

- Up to 2,379,683 in-lbs

Maximum Operating Pressure:

- 3000 Psi (207 bar)

Operation Temperature:

- -20°F to +140°F (-29°C to +60°C)
- -40°F to +140°F (-40°C to +60°C) (optional)

Input Power:

- Multiple AC and 24V DC available

Remote Operation:

Input:

- Open, Close, Stop
- ESD

Output:

- Open, Close position feedback
- 4 – 20mA hydraulic pressure (optional)

Limit Switches:

- 2 SPDT (standard)
- 4 SPDT (optional)

Environmental Protection:

- Control enclosure: IP68
- Hydraulic actuator: IP67M
- Motor: IP68
- Reservoir: IP54

Local Operation and Display:

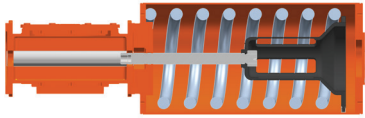
- Open/Close/Stop push button
- Lockable Remote/Local/Offline selector switch
- Open/Close light display
- Local physical position indicator
- Hydraulic hand pump manual override

Hazardous Area Classification & SIL Certification

- CSA, Canadian Standard Association Certification Class I, Division I, Groups, C and D Group B configuration upon request
- FM, Factory Mutual Certification Class I, II and III, Groups C, D, E, F, G, Division I, T4 Group B configuration upon request
- ATEX Directive EExd IIB T4
- IECEx Certificate of Conformity Ex d IIB T4
- SIL II Certification

*Contact local sales office for updated list of certifications

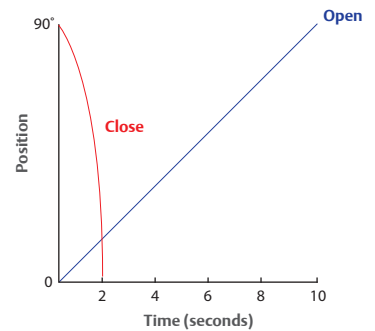
Spring power, utility power or solar power



Reliability is maximized by utilizing a spring-return actuator to stroke the valve after power failure or during an emergency event.



Solar panels are available for areas without electrical power. External hydraulic or pneumatic power sources are not required.



Fast-closing or precise speed control is obtained through field-adjustable flow control valves to meet application requirements.

Easy to Use Rugged Hydraulic Components



Solenoids, speed controls, pressure transducers and pressure switches are integrated in a compact manifold block eliminating external tubing and connections.

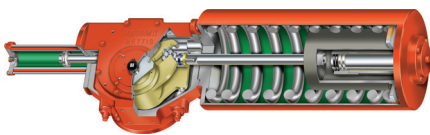


During an emergency power loss, the hydraulic hand pump can be used to stroke the actuator directly or recharge an accumulator.



Corrosion resistant materials ensure longevity. The control enclosure, hydraulic manifold and hand pump are constructed from marine grade aluminum with stainless steel trim.

Proven Technology for Critical Applications



The **Bettis G-Series**, hydraulic actuator design enables safe field maintenance with reduced service time.



With the dual-sealed Separate Terminal Chamber (STC), installation wiring can be terminated and fuses can be replaced without exposing the internal control components to hostile environmental conditions.



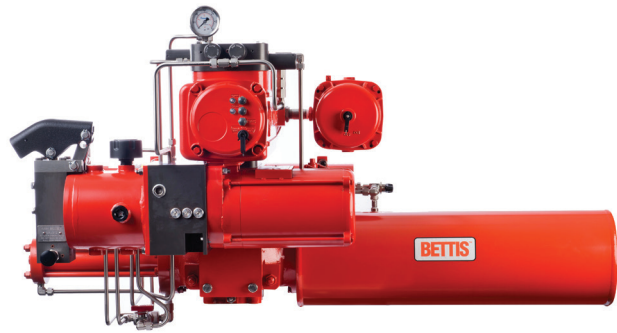
BETTIS **SHAFFER** **EIM**

1929

1946

1949

Over 200 years of combined experience go into the Bettis EHO Electro-Hydraulic Operator. The solution unites veteran components: Bettis operator, EIM electric components and motor, and Shaffer hydraulic control technology.



- A Valve Operating System (VOS) is only as good as its weakest link. A system made up with major components from multiple manufacturers can make problems harder to diagnose. The Bettis EHO Electro-Hydraulic Operator gives you a single source of design and accountability.
- The Bettis G-Series spring-return actuator gives you the fail-safe reliability you need, validated in thousands of applications for more than 30 years.
- Emerson's Lifecycle services provide prompt response when you need it, where you need it.

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

NORTH & SOUTH AMERICA

19200 Northwest Freeway
Houston TX 77065
USA
T +1 281 477 4100
F +1 281 477 2809

Av. Hollingsworth
325 Iporanga Sorocaba
SP 18087-105
Brazil
T +55 15 3238 3788
F +55 15 3228 3300

ASIA PACIFIC

No. 9 Gul Road
#01-02 Singapore 629361
T +65 6501 4600
F +65 6268 0028

No. 1 Lai Yuan Road
Wuqing Development Area
Tianjin 301700
P. R. China
T +86 22 8212 3300
F +86 22 8212 3308

MIDDLE EAST & AFRICA

P. O. Box 17033
Dubai
United Arab Emirates
T +971 4 811 8100
F +971 4 886 5465

P. O. Box 10305
Jubail 31961
Saudi Arabia
T +966 3 340 8650
F +966 3 340 8790

24 Angus Crescent
Longmeadow Business Estate East
P.O. Box 6908 Greenstone
1616 Modderfontein Extension 5
South Africa
T +27 11 451 3700
F +27 11 451 3800

EUROPE

Berenyi u. 72- 100
Videoton Industry Park
Building #230
Székesfehérvár 8000
Hungary
T +36 22 53 09 50
F +36 22 54 37 00

For complete list of sales and manufacturing sites, please visit www.emersonprocess.com/valveautomationlocations or contact us at info.valveautomation@emerson.com

©2016 Emerson Process Management. All rights reserved.

The Emerson logo is a trademark and service mark of Emerson Electric Co. Bettis™ is a mark of one of the Emerson Process Management family of companies. All other marks are property of their respective owners.



For complete technical and installation documentation, scan QR.

www.emersonprocess.com/BettisEHO

BETTIS™

DOC.4P.BEHO.US Rev B 01-16


EMERSON™
Process Management