Sheet No.: BHH.01 Rev. A Date: October 2010

# Hydraulic double-acting balanced rotary actuator 90° quarter-turn



#### Manufacture:

The BHH actuators are manufactured in accordance with the guidelines for quality system stated in the ISO standard. After assembly each actuator is flushed according to ISO 4406 19/16 standard and plugged. Flushing according to ISO 4406 16/13 standard can be performed on request.

#### Classification:

Meets the requirements from the major classification and approval authorities like:

ATEX Russian Register of Shipping

Lloyd's Register of Shipping

American Bureau of Shipping

RINA

Bureau Veritas

Germanischer Lloyd

U.S. Coast Guard

IP68 Water Ingress Protection

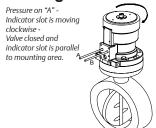
#### Main data:

Temperature range:	-20°C to +80°C,(-5°F to +180°F) -40°C to +80°C, (-40°F to +180°F) Optional
Housing:	GGG 40 (Ductile Iron)
Piston:	GGG 40 (Ductile Iron)
Output shaft:	SS 2142 (Alloy Steel)
Indicator shaft:	AISI 316 (Stainless Steel)
Intermediate flange:	St 52-3 (Carbon Steel)
Adapter:	SS 2142 (Alloy Steel)
Coating:	Primer: Min. 40 micron, type Hempel EE 13140 Top coat: min. 25 micron alkyd, orange RAL2002

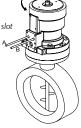
## Operating restrictions:

Please observe specific rules and demands from the classification societies and authorities concerning operating pressure and temperature range. (Example - ABS: Max. operating pressure = 20% of burst pressure). For extreme cycle speeds, loads and lifetime expectations please consult manufacturer.

#### Turning direction in relation to "A" and "B":



Pressure on "B" Indicator slot is moving
counter clockwise Valve open and indicator slot
is perpendicular
to the mounting area





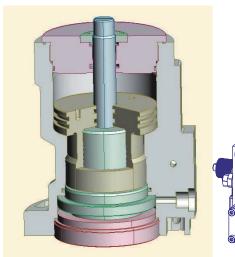


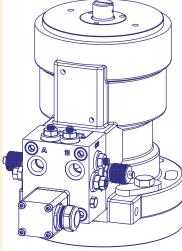
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# BHH

## The BHH actuator for operation of quarter-turn valves:

- Unique and simple design with builtin crossover valve.
- Compactness and high-torque output.
- Reliable and rugged, with more than 30 years service records on basic design.
- Balanced rotary principle eliminates side forces and/or bending of valve spindle.
- Able to function in salt laden environment, as well as partially submerged service.
- Easy adaption to all well-known guar ter-turn valves.
- Unlimited mounting positions with built-in adjustments for end stops of rotary movement.
- Prepared for direct built-on modular control functions.





Actuator mounted with control block and Fl indicator

# **Standard options:**

- Hydraulic on/off indication (bypass).
- El on/off or continuous indication IP 68.
- Connection block with e.g. filter.
- Double pilot operated non-return valve.
- Double release valve.
- Double throttle valve.
- Quick connection for emergency operation with portable hand pump.
- Built-on emergency operation hand pump.
- Submersion cover.
- Epoxy coating.

On request, special features available, such as:

- Flushing valve built into the connection block making it possible to flush the system without disconnection of pipes.
- Safety equipment such as mechanical locking device of actuator in closed position.

## **Actuator mounted control equipment:**

See separate data sheet for the whole range of control blocks and other actuator mounted control components. (Interface for Cetop 3 valves).

Note: Not Certified dimensional drawings. Such drawings are available on request. Contact factory with correct model designation and serial number. Important: Due to Emerson's continuing commitment to engineered product advancement, data presented herin is subject to change.

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