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
- Lloyd’s Register of Shipping
- American Bureau of Shipping
- RINA
- Russian Register of Shipping
- Bureau Veritas
- Germanischer Lloyd
- U.S. Coast Guard
- IP68 Water Ingress Protection

Main data:

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

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 “A”:
  - Indicator slot is moving clockwise
  - Valve closed and indicator slot is parallel to mounting area

- Pressure on “B”:
  - Indicator slot is moving counter clockwise
  - Valve open and indicator slot is perpendicular to mounting area
The BHH actuator for operation of quarter-turn valves:
- Unique and simple design with built-in 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 quarter-turn valves.
- Unlimited mounting positions with built-in adjustments for end stops of rotary movement.
- Prepared for direct built-on modular control functions.

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-in 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 herein is subject to change.