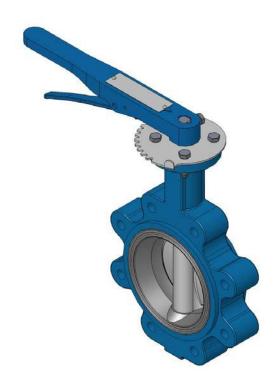


# DEZURIK TEN-POSITION LEVER ACTUATOR USED ON BOS BUTTERFLY VALVES



Instruction **D10461**January 2015

### **DeZURIK**

#### Instructions

These instructions are for use by personnel who are responsible for the installation, operation and maintenance of DeZURIK valves, actuators or accessories.

## **Safety Messages**

All safety messages in the instructions are identified by a general warning sign and the signal word CAUTION, WARNING or DANGER. These messages indicate procedures to avoid injury or death.

Safety label(s) on the product indicate hazards that can cause injury or death. If a safety label becomes difficult to see or read, or if a label has been removed, please contact DeZURIK for replacement label(s).

#### **▲**WARNING

Personnel involved in the installation or maintenance of valves should be constantly alert to potential emission of pipeline material and take appropriate safety precautions. Always wear suitable protection when dealing with hazardous pipeline materials. Handle valves which have been removed from service with suitable protection for any potential pipeline material in the valve.

## Inspection

Your DeZURIK product has been packaged to provide protection during shipment; however, items can be damaged in transport. Carefully inspect the unit for damage upon arrival and file a claim with the carrier if damage is apparent.

#### **Parts**

Replaceable wear parts are listed on the assembly drawing. These parts can be stocked to minimize downtime. Order parts from your local DeZURIK sales representative or directly from DeZURIK. When ordering parts please provide the following information:

If the valve has a data plate: please include the 7-digit part number with either 4-digit revision number (example: 9999998000) or 8-digit serial number (example: S1900001) whichever is applicable. The data plate will be attached to the valve assembly. Also, include the part name, the assembly drawing number, the balloon number and the quantity stated on the assembly drawing.

If there isn't any data plate visible on the valve: please include valve model number, part name, and item number from the assembly drawing. You may contact your local DeZURIK Representative to help you identify your valve.

## **DeZURIK Service**

DeZURIK service personnel are available to maintain and repair all DeZURIK products. DeZURIK also offers customized training programs and consultation services. For more information, contact your local DeZURIK sales representative or visit our website at DeZURIK.com.

## **DeZURIK**

# Ten-Position Lever Actuator Used On BOS Butterfly Valves

## **Table of Contents**

Description	4
Operation	4
Locking Device	5
Removing Actuator	5
Installing Actuator	6
Changing Mounting Position	6

#### Ten-Position Lever Actuator Used On BOS Butterfly Valves

## **Description**

The Ten-Position Lever is a manual actuator for 90° rotation of BOS Butterfly Valves. The actuator holds the valve in the open or closed position, or in any of eight other equally spaced intermediate positions.

## **Operation**

To operate the actuator, firmly grasp and squeeze the end of the handle (B1-1) and the lever (B1-2) to disengage the lever from the dial (B7); then slowly rotate the handle to the desired valve position. Clockwise rotation closes the valve, and counterclockwise rotation opens the valve. Ensure that the lever is engaged in one of the 10 notches before releasing the handle. Refer to Figure 1 for parts identification.



#### CAUTION!

Close the valve slowly. Rapid closure of the valve can cause pipeline pressure surges that will damage pipeline equipment.

Ensure that the lever is engaged in one of the 10 notches before releasing the handle. If the lever is not engaged, the valve can slam closed and cause pipeline pressure surges that will damage pipeline equipment.

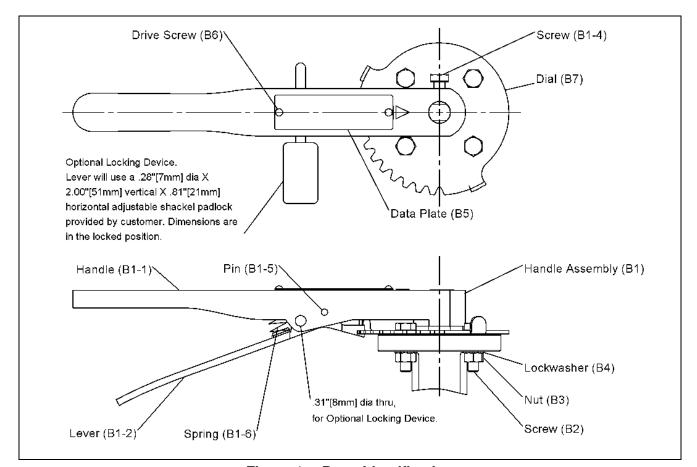


Figure 1— Parts Identification

## **Locking Device**

A lockout feature allows the actuator to be padlocked in any of the 10 actuator positions. To lock the actuator, insert the padlock (not included) between the lever and the handle as shown in Figure 1. See recommendations below.

#### Padlock for the small size lever:

Master No. 510 or equivalent, with a .28" (7.1 mm) diameter removable shackle, 2.00" (50 mm) vertical clearance, and .81" (21 mm) horizontal clearance, as shown in Figure 2.

#### Padlock for the medium size levers:

Master No. 5 or equivalent, with a .38" (9.5 mm) diameter shackle, 2.50" (64 mm) vertical clearance, and .94" (24 mm) horizontal clearance, as shown in Figure 2.

## **Removing Actuator**

Refer to Figure 1 for parts identification.



#### **WARNING!**

Flow in the pipeline with the actuator removed can allow the valve to slam closed and cause personal injury and/or damage to the flow system. Shut down the flow in the pipeline before removing the actuator.

- 1. Shut down the flow in the pipeline.
- 2. Close the valve.
- 3. Loosen the screw (B1-4) that secures the handle assembly (B1) to the valve shaft.
- 4. While squeezing the lever (B1-2), lift and remove the handle assembly (B1) from the valve shaft. *Note:* Some valve sizes have double-D shafts and some have keyed shafts. Take care not to lose the key on valves with keyed shafts.
- Remove the nuts (B3), lockwashers (B4) and screws (B2) from the dial (B7).
- 6. Remove the dial (B1-3) from the valve.

## **Installing Actuator**

Refer to Figure 1 for parts identification.

- 1. Select the desired actuator mounting position. The actuator may be mounted on the valve in the standard or 180° mounting positions, as shown on the Installation Drawing for the valve.
- 2. Mount the dial (B7) to the top of the valve with the screws (B2),lockwashers (B4) and nuts (B3). Tighten the screws finger tight.

**Note:** Some valve sizes have double-D shafts and some have keyed shafts. Make sure the key is in the valve shaft before mounting the actuator on valves with keyed shafts.

- 3. Place the handle assembly (B1) in position on the valve shaft, and flush with the top of the valve shaft. Ensure that the lever is engaged in one of the notches.
- 4. Tighten the screw (B1-4) in the handle (B1-1).
- 5. Tighten the screws (B2), lockwashers (B4) and nuts (B3).



#### CAUTION!

After mounting the handle assembly to the valve, verify that when the valve is in the closed position that the position indicator points to the "SHUT" indication mark on the dial plate. Also verify that when the valve is in the open position, that the position indicator points to the "OPEN" indication mark on the dial plate.

## **Changing Mounting Position**



#### **WARNING!**

Flow in the pipeline with the actuator removed can allow the valve to slam closed and cause personal injury and/or damage to the flow system. Shut down the flow in the pipeline before removing the actuator.

The actuator may be mounted on the valve in the standard or 180° mounting positions, as shown on the Installation Drawing for the valve. To change to a different mounting position:

- 1. Remove the actuator as described in the "Removing Actuator" section.
- 2. Move the actuator to the opposite mounting position and replace the actuator on the valve as described in the "Installing Actuator" section.

## **Limited Warranty**

DeZURIK, Inc. ("Seller") manufactured products, auxiliaries and parts thereof that we manufacture for a period of twenty-four (24) months from date of shipment from Seller's factory, are warranted to the original purchaser only against defective workmanship and material, but only if properly stored, installed, operated, and serviced in accordance with Seller's recommendations and instructions.

For items proven to be defective within the warranty period, your exclusive remedy under this limited warranty is repair or replacement of the defective item, at Seller's option, FCA Incoterms 2020 Seller's facility with removal, transportation, and installation at your cost.

Products or parts manufactured by others but furnished by Seller are not covered by this limited warranty. Seller may provide repair or replacement for other's products or parts only to the extent provided in and honored by the original manufacturer's warranty to Seller, in each case subject to the limitations contained in the original manufacturer's warranty.

No claim for transportation, labor, or special or consequential damages or any other loss, cost or damage is being provided in this limited warranty. You shall be solely responsible for determining suitability for use and in no event shall Seller be liable in this respect.

This limited warranty does not warrant that any Seller product or part is resistant to corrosion, erosion, abrasion or other sources of failure, nor does Seller warrant a minimum length of service.

Your failure to give written notice to us of any alleged defect under this warranty within twenty (20) days of its discovery, or attempts by someone other than Seller or its authorized representatives to remedy the alleged defects therein, or failure to return product or parts for repair or replacement as herein provided, or failure to store, install, or operate said products and parts according to the recommendations and instructions furnished by Seller shall be a waiver by you of all rights under this limited warranty.

This limited warranty is voided by any misuse, modification, abuse or alteration of Seller's product or part, accident, fire, flood or other Act of God, or your failure to pay entire contract price when due.

The foregoing limited warranty shall be null and void if, after shipment from our factory, the item is modified in any way or a component of another manufacturer, such as but not limited to; an actuator is attached to the item by anyone other than a Seller factory authorized service personnel.

All orders accepted shall be deemed accepted subject to this limited warranty, which shall be exclusive of any other or previous warranty, and this shall be the only effective guarantee or warranty binding on Seller, despite anything to the contrary contained in the purchase order or represented by any agent or employee of Seller in writing or otherwise, notwithstanding, including but not limited to implied warranties.

THE FOREGOING REPAIR AND REPLACEMENT LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, OBLIGATIONS AND LIABILITIES, INCLUDING, BUT NOT LIMITED TO, ALL WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR OF MERCHANTABILITY OR OTHERWISE, EXPRESSED OR IMPLIED IN FACT OR BY LAW, AND STATE SELLER'S ENTIRE AND EXCLUSIVE LIABILITY AND YOUR EXCLUSIVE REMEDY FOR ANY CLAIM IN CONNECTION WITH THE SALE AND FURNISHING OF SERVICES, GOODS OR PARTS, THEIR DESIGN, SUITABILITY FOR USE, INSTALLATION OR OPERATIONS. NEITHER ANY PERFORMANCE OR OTHER CONDUCT, NOR ANY ORAL OR WRITTEN INFORMATION, STATEMENT, OR ADVICE PREPARED BY SELLER OR ANY OF OUR EMPLOYEES OR AGENTS WILL CREATE A WARRANTY, OR IN ANY WAY INCREASE THE SCOPE OR DURATION OF THE LIMITED WARRANTY.

#### **Disclaimer**

Metric fasteners should not be used with ASME Class 150/300 bolt holes and flange bolt patterns. If you use metric fasteners with ASME Class 150/300 bolt holes and flange bolt patterns, it may lead to product failure, injury, and loss of life. DeZURIK Inc. disclaims all liability associated with the use of metric fasteners with ASME Class 150/300 bolt holes and flange patterns, including but not limited to personal injury, loss of life, loss of product, production time, equipment, property damage, lost profits, consequential damages of any kind and environment damage and/or cleanup. Use of metric fasteners with ASME Class 150/300 bolt holes and flange bolt patterns is a misuse that voids all warranties and contractual assurances. If you use metric fasteners with ASME Class 150/300 bolt holes and flange bolt patterns, you do so at your sole risk and any liability associated with such use shall not be the responsibility of DeZURIK, Inc. In addition to the foregoing, DeZURIK's Manufacturer's Conditions apply.

## **Limitation of Liability**

IN NO EVENT SHALL SELLER BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, PUNITIVE, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO; DAMAGE TO OR LOSS OF OTHER PROPERTY OR EQUIPMENT, BUSINESS INTERUPTION, COST OF SUBSTITUTE PRODUCTS, LOSS OF TIME, LOSS OF PROFITS OR REVENUE, COST OF CAPTIAL, LOSS OF USE, OR DIMINUTION IN VALUE) WHATSOEVER, AND SELLER'S LIABILITY, UNDER NO CIRCUMSTANCES, WILL EXCEED THE CONTRACT PRICE FOR THE GOODS AND/OR SERVICES FOR WHICH LIABILITY IS CLAIMED. ANY ACTION FOR BREACH OF CONTRACT BY YOU, OTHER THAN RIGHTS RESPECTING OUR LIMITED WARRANTY DESCRIBED ABOVE, MUST BE COMMENCED WITHIN 12 MONTHS AFTER THE DATE OF SALE.

#### Sales and Service



250 Riverside Ave. N., Sartell, MN 56377 • Phone: 320-259-2000 • Fax: 320-259-2227

DeZURIK, Inc. reserves the right to incorporate our latest design and material changes without notice or obligation.

Design features, materials of construction and dimensional data, as described in this manual, are provided for your information only and should not be relied upon unless confirmed in writing by DeZURIK, Inc. Certified drawings are available upon request.