

DEZURIK AM-SERIES MANUAL GEAR ACTUATOR USED ON BUTTERFLY VALVES



Instruction D10501
January 2015

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: 9999999R000) 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.

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AM-Series Manual Actuator used on Butterfly Valves

Description

The AM-Series Manual Actuator is a quarter-turn gear actuator with a choice of handwheel or chainwheel operator. Each actuator has adjustable open and closed position stops, and may be mounted on the valve in any one of two or four positions as indicated on the installation drawing for the valve.

Operation

Clockwise rotation of the operator closes the valve; counterclockwise rotation opens the valve.

Lubrication

The actuator is lubricated at the factory, and does not require further lubrication. If the actuator has excessive wear or has been damaged, it is recommended that the actuator be replaced.

Position Stops

The open and closed position stops prevent the actuator from rotating beyond the open and closed positions of the valve. Each stop is adjustable. If the actuator is factory-mounted, the stops do not require adjustment. If the actuator is not factory mounted, or if the actuator has been removed, adjust the stops as described below. See Figure 1 for stop identification.

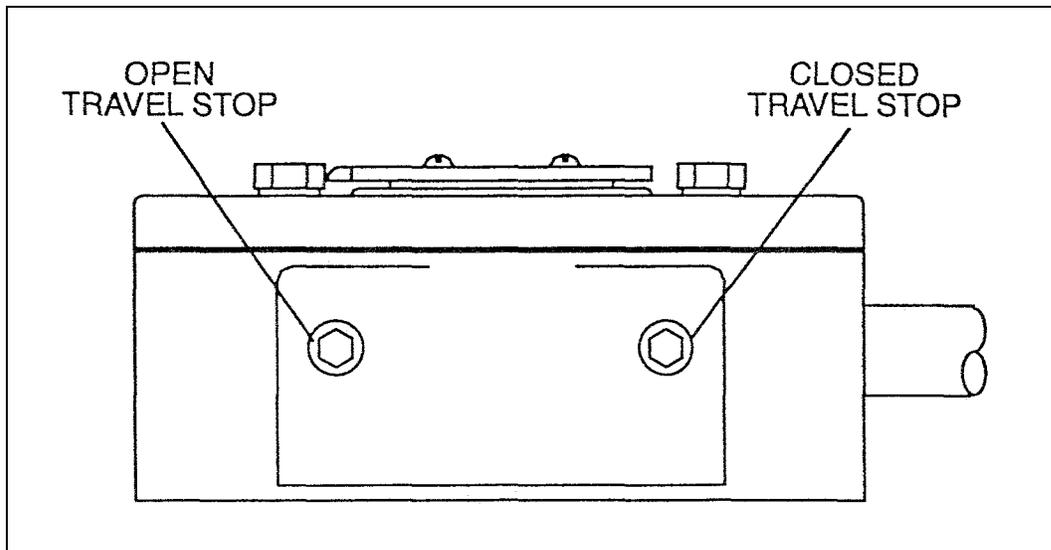


Figure 1— Stop Identification

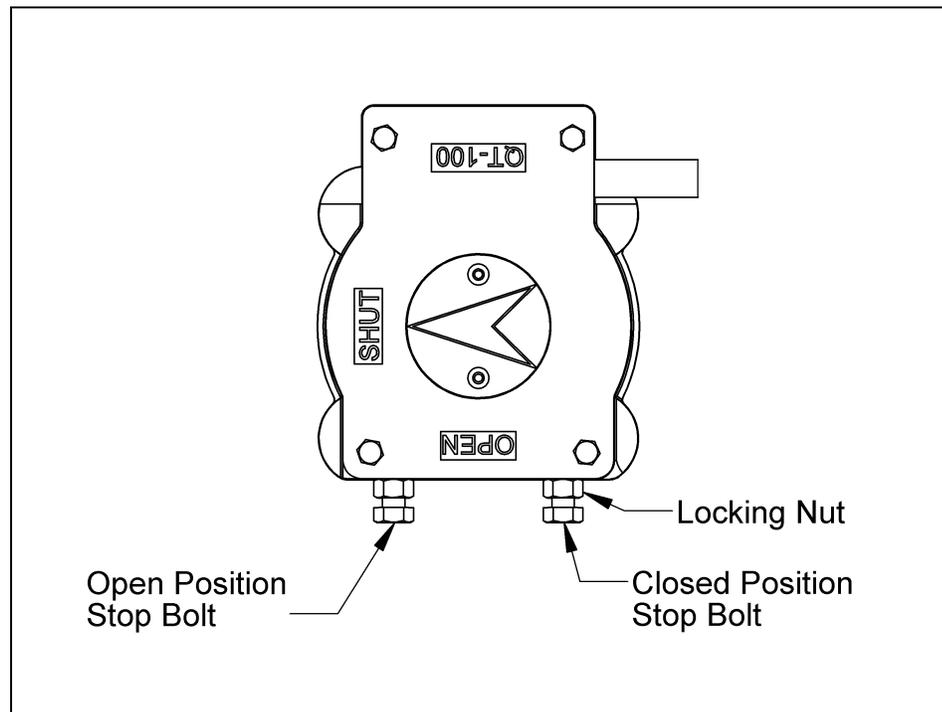
Position Stops (Continued)

Figure 2— Locking Screws and Travel Stops

Adjusting the Closed Position Stop

1. Loosen the locking nut of the closed position stop and loosen the stop bolt about two turns. See Figure 2.
2. Turn the handwheel or chainwheel so that the valve is in the closed position.
3. Turn the closed position stop bolt clockwise until resistance is felt from the stop bolt coming into contact with the gear inside of the actuator.
4. Tighten the locking nut of the closed position stop against the actuator housing.

Adjusting the Open Position Stop

1. Loosen the locking nut of the open position stop and loosen the stop bolt about two turns. See Figure 2.
2. Turn the handwheel or chainwheel so that the valve is in the open position.
3. Turn the open position stop bolt clockwise until resistance is felt from the stop bolt coming into contact with the gear inside of the actuator.
4. Tighten the locking nut of the open position stop against the actuator housing.

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AM-Series Manual Actuator used on Butterfly Valves

Removing Actuator



WARNING!

Flow in the pipeline with the actuator removed can slam the valve closed causing personal injury and damaging the flow system. Shut down the flow in the pipeline before removing the actuator from the valve.

1. Discontinue flow in the pipeline.
2. Close the valve.
3. Remove the four mounting screws and lockwashers.
4. Remove the actuator from the valve.

Mounting Actuator

1. Place both the actuator and the valve in the closed position.
 2. Select the desired actuator mounting position from the optional positions shown on the installation drawing and mount the actuator to the valve with the four mounting screws and lockwashers.
 3. Adjust the open and closed position stops as shown in the Position Stops section.
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CAUTION!

After mounting the actuator 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 actuator. Also verify that when the valve is in the open position, that the position indicator points to the “OPEN” indication mark on the actuator.

Changing the Mounting Position

No additional components are needed to change the mounting position of the AM-Series Manual Gear Actuator.

Before changing the actuator mounting position, check to assure that dimensional clearance is available for the proposed actuator location. The actuator may be mounted in any one of two or four positions as indicated on the installation drawing for the valve. To change the position, follow the steps in the “REMOVING ACTUATOR” and “MOUNTING ACTUATOR” sections.

Lockout

Operation

The handwheel actuator is available with an optional lockout that allows the handwheel to be locked with a padlock at any 1/8-turn increment. Lockouts may be ordered with a valve or ordered separately as a kit. A padlock is not included with the lockout accessory.

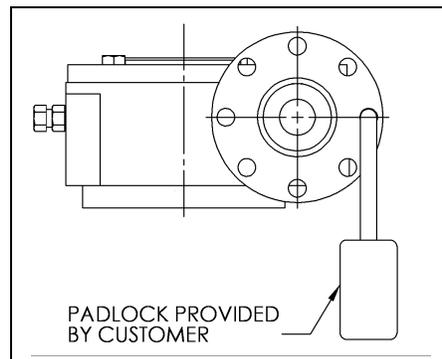


Figure 3 — Lockout

Adding a Lockout to Actuator

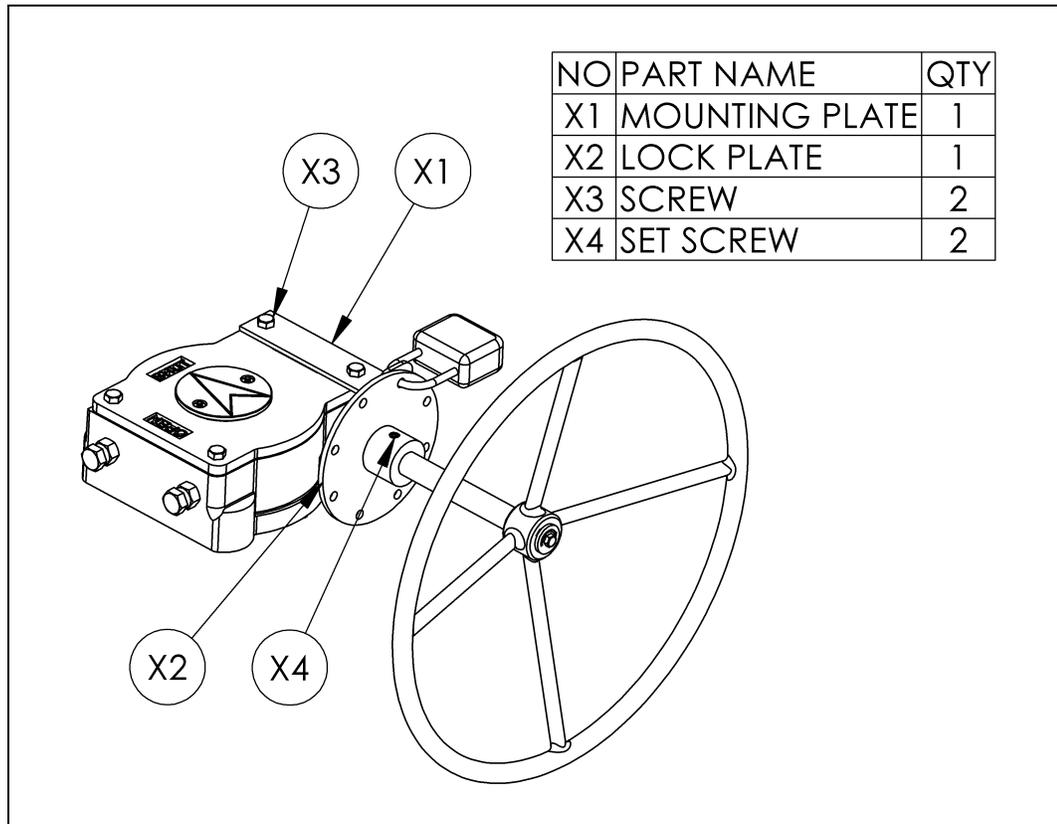


Figure 4 — Lockout Parts

1. Remove the handwheel pin and handwheel from the actuator shaft.
2. Attach the mounting plate (X1) with two screws (X3) to the actuator as shown in Figure 4.
3. Slide the lock plate (X2) onto the actuator shaft and align the holes in the lock plate with the holes in the actuator shaft.
4. Insert the setscrews (X4) into the lock plate (X2) and secure it into the holes in the actuator shaft.
5. Place the handwheel in the original position on the actuator shaft, and secure the handwheel with the handwheel pin.

Troubleshooting

Condition	Possible Cause	Corrective Action
Actuator closes to wrong position or leakage past the valves disc.	Closed position stop is set incorrectly.	Adjust closed position stop.
Actuator opens to wrong position.	Open position stop is set incorrectly.	Adjust open position stop.
Actuator will not fully operate valve.	Internal pipeline obstruction is preventing closure.	Remove obstruction.

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.

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Sales and Service

For information about our worldwide locations, approvals, certifications and local representative:

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