

DEZURIK TEN-POSITION LEVER MANUAL ACTUATOR

Instruction **D10316**
August 2012

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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Description

The Ten-Position Lever is a manual actuator for 90° rotation of Butterfly Valves. The actuator holds the valve in the open or closed position, or in any of eight other equally-spaced intermediate positions. A lockout feature allows the actuator to be padlocked in any of the ten positions. There are three sizes of levers as shown in Figure 1.

An Adjustable Open Position Stop is available as an option. This device prevents the actuator from opening beyond a preset partially-open position.

Operation

To operate the actuator, firmly grasp and squeeze the end of the handle and the lever to disengage the lever; 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.



CAUTION!

- 1. Close the valve slowly. Rapid closure of the valve can cause pipeline pressure surges that will damage pipeline equipment.**
 - 2. 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.**
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Closed Position Adjustment

If the valve is not closed when the actuator is in the closed position, the closed position of the actuator may be adjusted as described below. Maintain a firm grip on the actuator during adjustment to prevent pipeline damage as described in the OPERATION section above. Refer to Figure 1 for component identification.

1. Loosen the two dial screws and place the valve—not the actuator—in the closed position.
2. Rotate the dial so that the handle points to “shut” and the lever engages with the last (most clockwise) notch in the dial.
3. Tighten the two dial screws to the torque shown in Table A.
4. Operate the actuator to the open and closed positions to confirm that the valve is closed when the actuator is in the closed position. Repeat steps 1 through 4 if necessary.

Locking the Actuator

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 9/32" (7.1 mm) diameter removable shackle, 2" (50 mm) vertical clearance, and 13/16" (21 mm) horizontal clearance, as shown in Figure 1.

Locking the Actuator *(Continued)*

Padlock for the medium and large size levers:

Master No. 5 or equivalent, with a 3/8" (9.5 mm) diameter shackle, 2½" (64 mm) vertical clearance, and 15/16" (24 mm) horizontal clearance, as shown in Figure 1.

Open Position Stop (Optional)

The optional Adjustable Open Position Stop prevents the actuator from opening beyond a preset partially-open position. To adjust the stop:

1. Loosen the screw that mounts the stop to the dial.
2. Place the actuator in the desired partially-open position, with the lever engaged in one of the ten dial notches.
3. Rotate the stop so that the stop is against the handle.
4. Tighten the stop mounting screw to the torque shown in Table A.

Table A: Fastener Torques

Fastener Size	Carbon Steel		Stainless Steel	
	(ft lbs)	(Nm)	(ft lbs)	(Nm)
1/4-20	7 ± 1	9 ± 1	45 ± 6 (in lbs)	5.1 ± 0.7
5/16-18	14 ± 2	19 ± 3	8 ± 1	11 ± 1
3/8-16	26 ± 3	35 ± 4	15 ± 2	20 ± 3
1/2-13	63 ± 8	85 ± 11	38 ± 5	52 ± 7
M8 X 1.25	23 ± 3	31 ± 4	16 ± 2	22 ± 3
M10 X 1.5	47 ± 6	64 ± 8	33 ± 4	45 ± 5
M12 X 1.75	83 ± 10	113 ± 14	58 ± 8	79 ± 1

Removing Actuator



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.

Refer to Figure 1 for actuator component identification.

1. Shut down the flow in the pipeline.
2. Close the valve.
3. Loosen the screw that secures the handle to the valve shaft.
4. While squeezing the lever, lift and remove the handle from the valve shaft.
5. Remove the two dial screws and the dial.

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Ten-Position Lever Manual Actuator

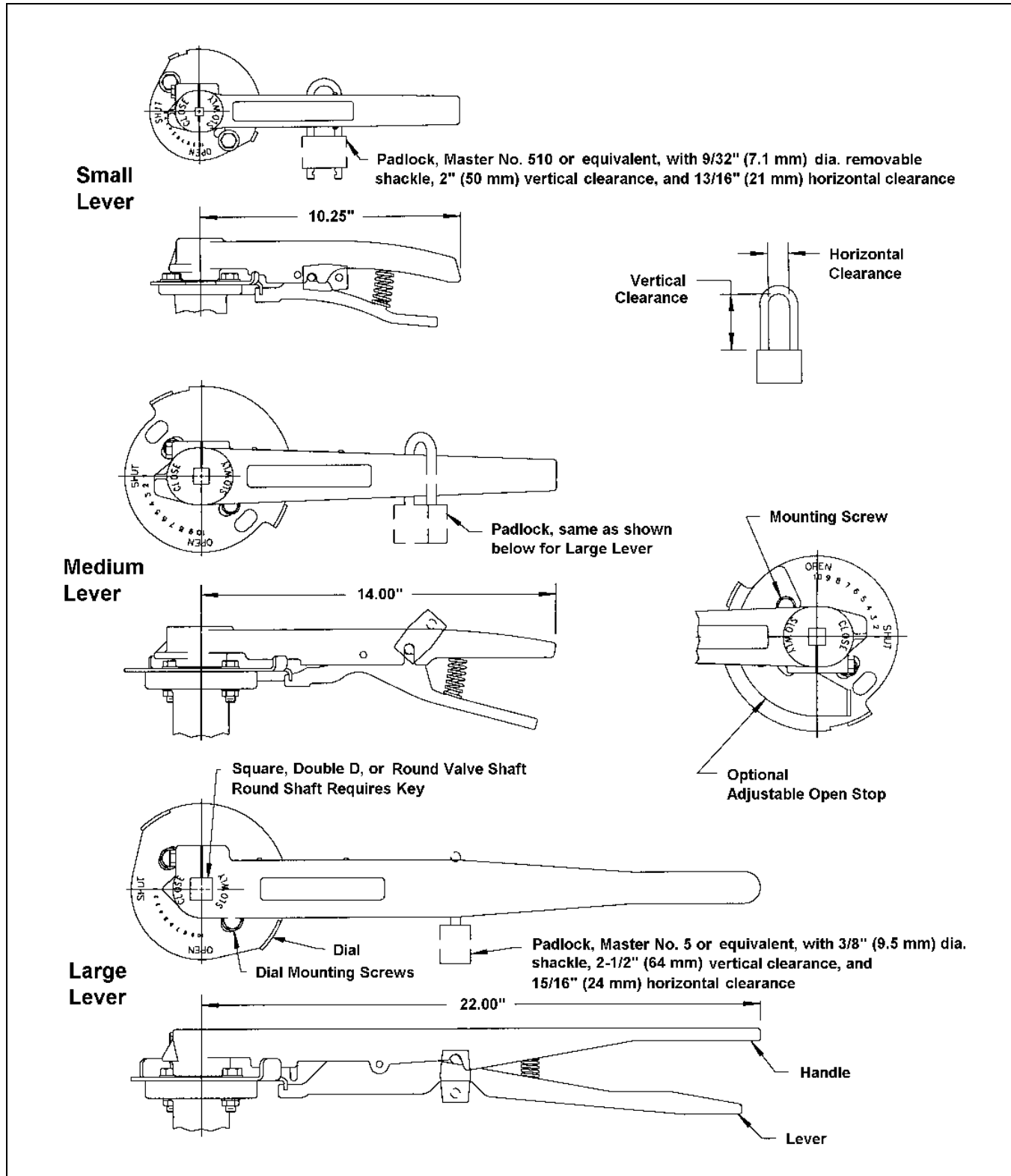


Figure 1 – Actuator Components

Installing Actuator

Refer to Figure 1 for actuator component identification.

1. Select the desired actuator mounting position. The actuator may be mounted in any of two or four positions, as shown on the Installation Drawing for the Valve; however, the standard position shown is recommended—with the handle perpendicular to the pipeline when the valve and actuator are in the closed position.
2. Mount the dial to the top of the valve with the two screws. Tighten the screws finger tight.
3. If the valve has a round keyed shaft, lubricate the key with light grease, and place the key in the valve shaft.
4. Place the handle in position on the valve shaft, and against the dial.
5. Tighten the screw in the handle to the torque in Table A.
6. Adjust the closed position as described in the Closed Position Adjustment section.

Changing Mounting Position

The actuator may be mounted on the valve in any of two or four 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. Determine the new mounting position for the actuator, 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.

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Sales and Service

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

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