



DeZURIK 4VD DIAPHRAGM  
PILOT VALVE  
USED WITH CYLINDER ACTUATORS

# DeZURIK

## 4VD Diaphragm Pilot Valve used with Cylinder Actuators

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### Instructions

These instructions provide information about the 4VD Diaphragm Pilot Valve. They are for use by personnel who are responsible for installation, operation and maintenance of 4VD Diaphragm Pilot Valves.

### Safety Messages

All safety messages in the instructions are flagged with an exclamation symbol and the word Caution, Warning or Danger. These messages indicate procedures that must be followed exactly to avoid equipment damage, personal injury or death. Safety label(s) on the product indicate hazards that can cause equipment damage, personal 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 that have been removed from service with the assumption of pipeline material within the valve.**

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### Inspection

Your 4VD Diaphragm Pilot Valve has been packaged to provide protection during shipment; however, it 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

Order parts from your local DeZURIK sales representative, or directly from DeZURIK. When ordering parts, please include the 7-digit part number and 4-digit revision number (example: **9999999R000**) located on the data plate 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.

### DeZURIK Service

DeZURIK service personnel are available to install, 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 [www.dezurik.com](http://www.dezurik.com).

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## Description

The Bellows 4-Way Single Diaphragm Pilot Valve uses a pneumatic operating signal and spring return action to control a double acting cylinder. Figure 1 shows the pilot valve action. When operating pressure is applied to the pilot valve, pressure from the supply port (port 1) is routed to port 2, while cylinder pressure at port 3 is routed to the exhaust port (port 4). As operating pressure is relieved, the supply air is routed to port 3, and cylinder pressure at port 2 is exhausted.

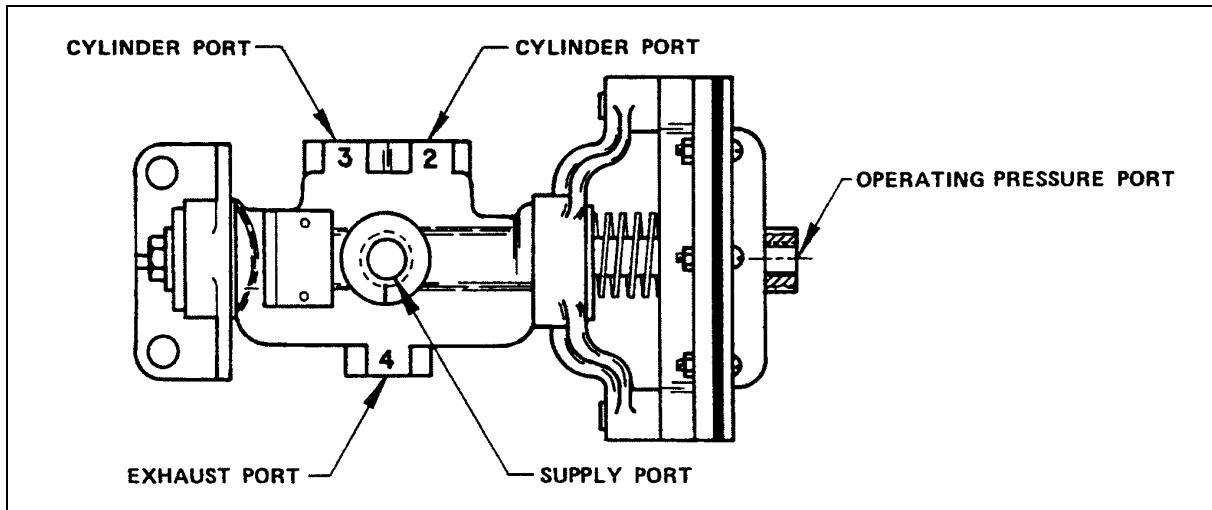


Figure 1 - Port Identification

## Operating Signal

To operate the pilot valve, a maintained pneumatic operating signal of 15 psi (1.0 bar) is required.

## Reversing the Action

The valve assembly may be piped to open or to close the valve when the operating pressure is applied. To reverse the action, follow these steps:

1. Close the valve.
2. Disconnect and lock out the pneumatic, hydraulic, or electrical power to prevent accidental operation of the actuator.



### **WARNING!**

**Moving parts from accidental operation of power actuator can cause personal injury or equipment damage. Disconnect and lock out power to actuator before servicing.**

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3. Relieve the pressure from both actuator ports.
4. Reverse the cylinder piping at the pilot valve.
5. Reconnect power to the actuator.
6. Valve is ready to resume operation.