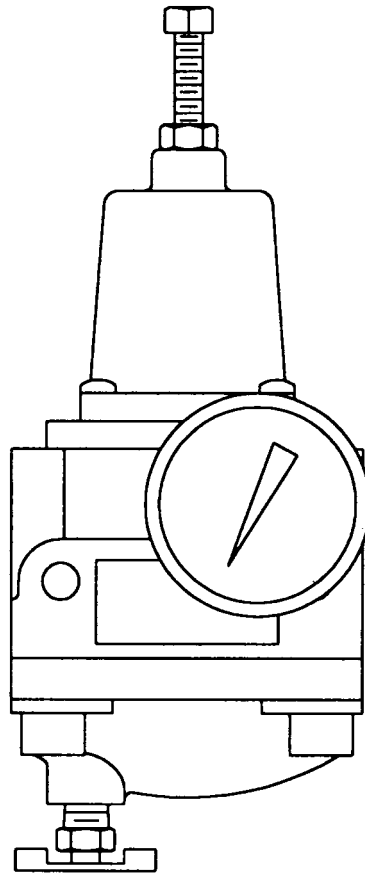




# **AFR2 FILTER REGULATOR USED ON PNEUMATIC CYLINDER ACTUATORS**



Instruction **D10384**  
March 2009

# DeZURIK

## AFR2 Filter Regulator used on Pneumatic Cylinder Actuators

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### Instructions

These instructions provide information about AFR2 Filter Regulators. They are for use by personnel who are responsible for installation, operation and maintenance of AFR2 Filter Regulators.

### 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, which have been removed from service with suitable protection for any potential pipeline material in the valve.**

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### Inspection

Your AFR2 Filter Regulator 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

Recommended spare parts are listed on the assembly drawing. These parts should be stocked to minimize downtime.

Order parts from your 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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# DeZURIK

## AFR2 Filter Regulator used on Pneumatic Cylinder Actuators

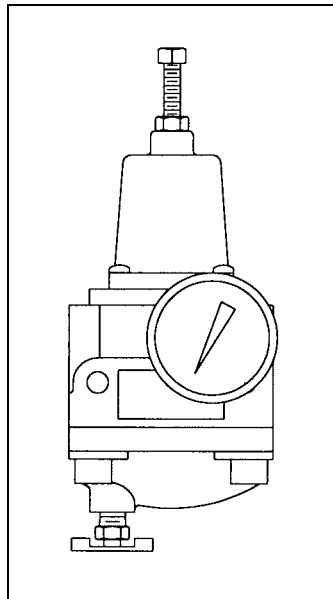
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### Description

The AFR2 Filter Regulator allows air pressure to be adjusted to match the requirements of the actuator (see the documentation envelope or IOM package supplied with your hardware for proper pressure settings). An internal filter traps water and other contaminants before they can cause excessive wear or damage to actuator components.

### Installation

Blow out the air supply pipe to remove scale or other contaminants prior to installation. Install the regulator as close as possible to the instrument being supplied. For best filter drainage, position the unit so that the drain valve is at the lowest point on the dripwell housing. The words "IN" and "OUT" are cast into the body to indicate the direction of flow.



#### **WARNING!**

The AFR2 is designed for air service only. Maximum allowable inlet pressure is 250 psi (1725 kPa). Operating temperatures are 0 to 160 °F (-18 to 71 °C).

An internal relief circuit provides limited downstream overpressure protection, but to avoid exceeding outlet pressure limits while in service, a pressure relieving or pressure limiting device should be provided.

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### Operation

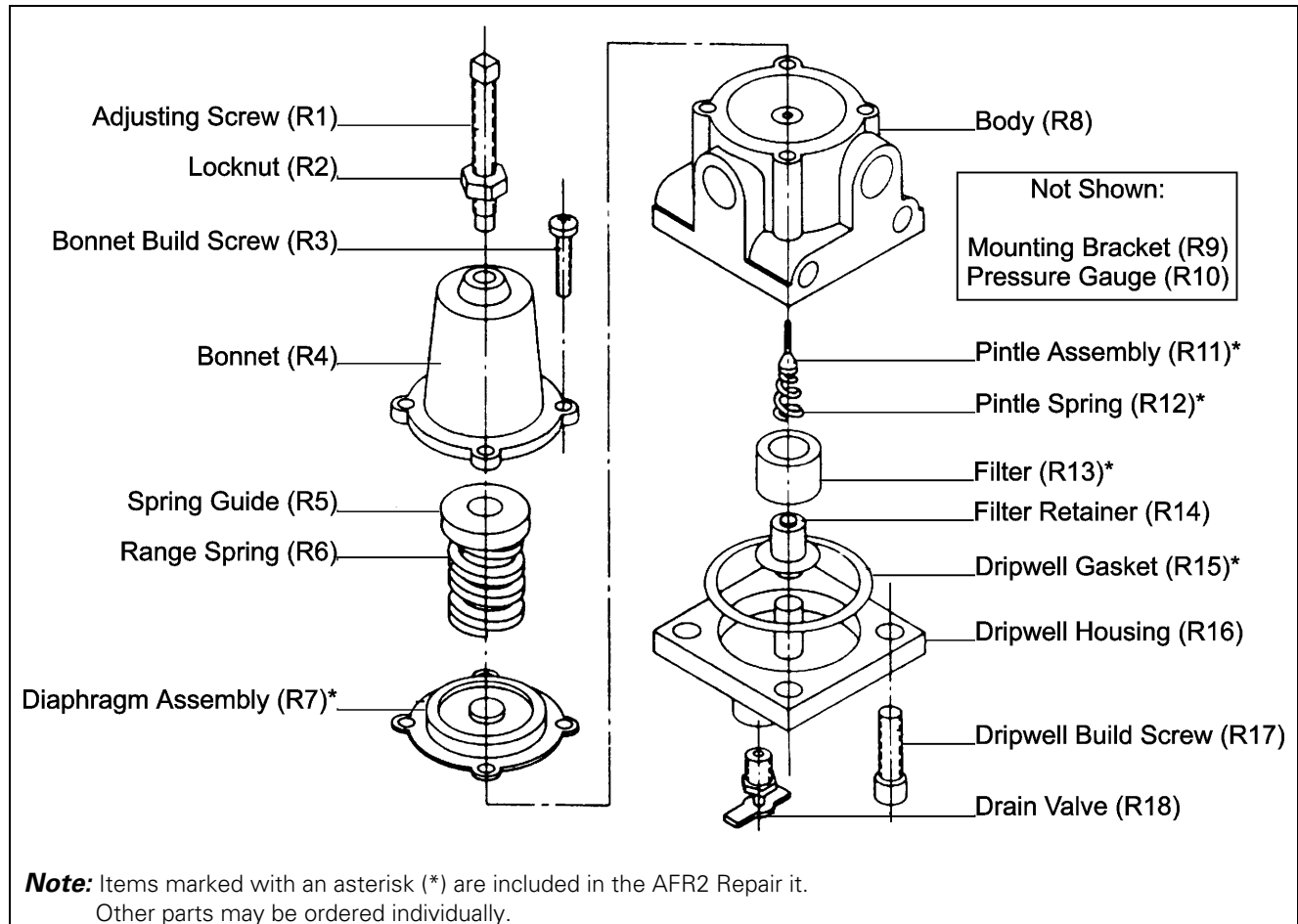
Before turning on supply air, back off the square-head adjusting screw until there is no compression of the range spring. After turning the supply pressure on, turn the adjusting screw clockwise to increase outlet pressure.

To adjust the filter regulator, turn the adjusting screw as follows:

1. Clockwise to increase outlet pressure.
2. Counterclockwise to decrease outlet pressure.

**AFR2 Filter Regulator used on  
Pneumatic Cylinder Actuators****Maintenance**

1. To drain liquid from the filter bowl, slowly open the drain valve and bleed accumulated liquid.
2. To clean the filter element:
  - a. Shut off supply air.
  - b. Drain condensed liquid.
  - c. Remove four corner bolts from bottom of unit.
  - d. Remove dripwell housing and filter.
  - e. Clean parts and reassemble in reverse order.
3. To install replacement parts:
  - a. Order repair kit as detailed in Figure 1.
  - b. Shut off supply air.
  - c. Back out adjusting screw.
  - d. Drain condensed liquid.
  - e. Remove four corner bolts from bottom of unit and four screws on top.
  - f. Remove all parts and replace those that show excessive wear.
  - g. Clean parts and reassemble in reverse order.

**Figure 1—Component Identification**