



▲ Model 127-4

The Model 127-4 has a wide range of applications: anywhere a pressure must be reduced to a manageable level and reverse flow must be prevented.

Typical examples include:

- High rise and commercial buildings
- Pump systems
- Zone pressure control in municipal and industrial water
- Irrigation systems

## SERIES FEATURES

- ▶ Reduces a higher inlet pressure to a lower outlet pressure
- ▶ Constant outlet pressure over wide flow range
- ▶ Check feature closes valve on pressure reversal
- ▶ Pilot-operated main valve not subject to pressure fall off
- ▶ Outlet pressure is adjustable with single screw
- ▶ Can be maintained without removal from the line
- ▶ Adjustable opening/response speed
- ▶ Factory tested and can be pre-set to your requirements

## OPERATION

The normally open, spring loaded pilot, sensing downstream pressure, responds to changes in pressure and causes the main valve to do the same. The net result is a constant modulating action of the pilot and main valve to hold the downstream pressure constant. The pilot system is equipped with an opening speed control that fine tunes the valve response to the system variables.

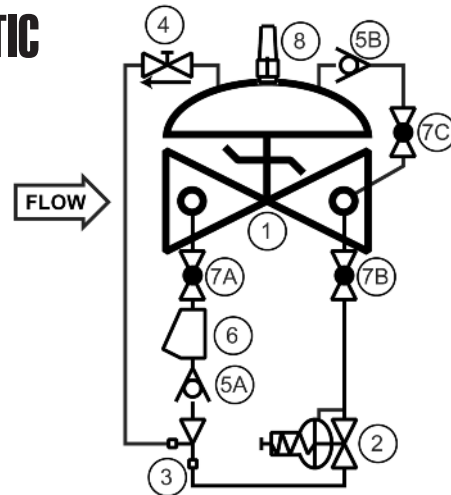
If downstream pressure becomes greater than upstream pressure, the valve will fully close to prevent reverse flow.

## COMPONENTS

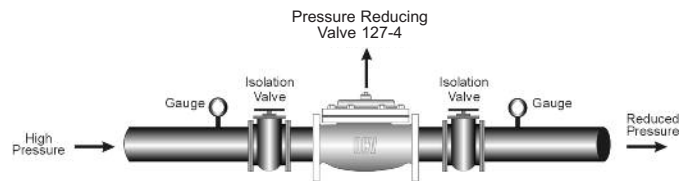
The Model 127-4 consists of the following components, arranged as shown on the schematic diagram:

- 1.) Model 65 Basic Control Valve
- 2.) Model 1340 Pressure Reducing Pilot
- 3.) Model 126 Ejector
- 4.) Model 141-3\* Flow Control Valve - Opening Speed Control  
\*NOTE: Model 141-2 Needle Valve used on sizes 1-1/4"-3"
- 5.) Model 141-1 Check Valve
- 6.) Model 159 Y-Strainer  
Protects pilot system from dirt/debris
- 7.) Model 141- 4 Isolation Ball Valves
- 8.) Model 155 Visual Indicator (Optional)

## SCHEMATIC



## RECOMMENDED INSTALLATION



## SIZING

Sizing is a critical issue in the selection of pressure reducing valves. Definitive sizing information can be found in the OCV Catalog, Series 127 section and Engineering section Performance Charts. Consult the factory for assistance and a copy of the OCV ValveMaster Sizing program.

## MAX. PRESSURE

| END CONNECTIONS | DUCTILE IRON | STEEL/STN STL | BRONZE  |
|-----------------|--------------|---------------|---------|
| Threaded        | 640 psi      | 640 psi       | 500 psi |
| Grooved         | 300 psi      | 300 psi       | 300 psi |
| 150# Flanged    | 250 psi      | 285 psi       | 225 psi |
| 300# Flanged    | 640 psi      | 740 psi       | 500 psi |

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## SIZES

### GLOBE/ANGLE

Screwed Ends - 1 1/4" - 3"  
 Grooved Ends - 1 1/2" - 4"  
 Flanged Ends - 1 1/4" - 24" (globe);  
 1 1/4" - 16" (angle)

### SPRING RANGES (outlet setting)

5-30 psi, 20-80 psi, 65-180 psi, 100-300 psi

### TEMPERATURE RANGE

(Valve Elastomers)

Buna-N -40° F - 180°F

Viton 0° F - 400°F

EPDM 0° F - 300°F

**MATERIALS** - Consult factory for others.

**Body/Bonnet:** Ductile Iron (epoxy coated), Carbon Steel (epoxy coated), Stainless Steel, B61 Bronze  
 -Others available (consult factory)

**Seat Ring:** Bronze B61, Stainless Steel

**Stem:** Stainless Steel, Monel

**Spring:** Stainless Steel

**Diaphragm:** Nylon Reinforced, Buna-N, Viton, EPDM

**Seat Disc:** Buna-N, Viton, EPDM

**Pilot:** Bronze, Stainless Steel

*Other pilot system components:*

Bronze/Brass, All Stainless Steel

**Tubing & Fittings:** Copper/Brass, Stainless Steel

## SPECIFICATIONS (Typical Water Application)

The pressure reducing/check valve shall function to reduce a higher upstream pressure to a constant, lower downstream pressure regardless of fluctuations in supply or demand. If downstream pressure becomes greater than upstream pressure, the valve will close fully to prevent reverse flow.

### DESIGN

The pressure reducing/check valve shall be a single-seated, line pressure operated, diaphragm actuated, pilot controlled globe valve. The valve shall seal by means of a corrosion-resistant seat and a resilient, rectangular seat disc. These, and other parts, shall be replaceable without removing the valve from the line. The stem of the main valve shall be guided top and bottom by integral bushings. Alignment of the body, bonnet and diaphragm assembly shall be by precision dowel pins. The diaphragm shall not be used as a seating surface, nor shall the pistons be used as an operating means. The pilot system shall be furnished complete and installed on the main valve. It shall include an opening speed control, a Y-strainer, pilot check valves and isolation ball valves. The pressure reducing valve shall be operationally and hydrostatically tested prior to shipment.

### MATERIALS OF CONSTRUCTION

The main valve body and bonnet shall be ductile iron per ASTM A536, Grade 65-45-12. All ferrous surfaces shall be coated with 4 mils of epoxy. The main valve seat ring shall be bronze per ASTM B61. Elastomers (diaphragms, resilient seats and O-rings) shall be Buna-N. Control pilot shall be ASTM B61 bronze. The opening speed control and isolation ball valves shall be brass, and control line tubing shall be copper.

### OPERATING CONDITIONS

The pressure reducing/check valve shall be suitable for reducing inlet pressures of <X to X> psi to a constant outlet pressure of <X> psi at flow rates ranging from <X to X> gpm.

### ACCEPTABLE PRODUCTS

The pressure reducing/check valve shall be a <size> Model 127-4, <globe pattern, angle pattern>, with < 150# flanged, 300# flanged, threaded, grooved> end connections, as manufactured by OCV Control Valves, Tulsa, Oklahoma, USA.

U.S. DIMENSIONS - INCHES

| DIM        | END CONN. | 1 1/4-1 1/2 | 2     | 2 1/2  | 3      | 4       | 6      | 8        | 10      | 12     | 14     | 16       | 24     |
|------------|-----------|-------------|-------|--------|--------|---------|--------|----------|---------|--------|--------|----------|--------|
| A          | SCREWED   | 8 3/4       | 9 7/8 | 10 1/2 | 13     | --      | --     | --       | --      | --     | --     | --       | --     |
|            | GROOVED   | 8 3/4       | 9 7/8 | 10 1/2 | 13     | 15 1/4  | 20     | --       | --      | --     | --     | --       | --     |
|            | 150# FLGD | 8 1/2       | 9 3/8 | 10 1/2 | 12     | 15      | 17 3/4 | 25 3/8   | 29 3/4  | 34     | 39     | 40 3/8   | 62     |
|            | 300# FLGD | 8 3/4       | 9 7/8 | 11 1/8 | 12 3/4 | 15 5/8  | 18 5/8 | 26 3/8   | 31 1/8  | 35 1/2 | 40 1/2 | 42       | 63 3/4 |
| C<br>ANGLE | SCREWED   | 4 3/8       | 4 3/4 | 6      | 6 1/2  | --      | --     | --       | --      | --     | --     | --       | --     |
|            | GROOVED   | 4 3/8*      | 4 3/4 | 6      | 6 1/2  | 7 5/8   | --     | --       | --      | --     | --     | --       | --     |
|            | 150# FLGD | 4 1/4       | 4 3/4 | 6      | 6      | 7 1/2   | 10     | 12 11/16 | 14 7/8  | 17     | --     | 20 13/16 | --     |
|            | 300# FLGD | 4 3/8       | 5     | 6 3/8  | 6 3/8  | 7 13/16 | 10 1/2 | 13 3/16  | 15 9/16 | 17 3/4 | --     | 21 5/8   | --     |
| D<br>ANGLE | SCREWED   | 3 1/8       | 3 7/8 | 4      | 4 1/2  | --      | --     | --       | --      | --     | --     | --       | --     |
|            | GROOVED   | 3 1/8*      | 3 7/8 | 4      | 4 1/2  | 5 5/8   | --     | --       | --      | --     | --     | --       | --     |
|            | 150# FLGD | 3           | 3 7/8 | 4      | 4      | 5 1/2   | 6      | 8        | 11 3/8  | 11     | --     | 15 11/16 | --     |
| E          | ALL       | 6           | 6     | 7      | 6 1/2  | 8       | 10     | 11 7/8   | 15 3/8  | 17     | 18     | 19       | 27     |
|            | H         | ALL         | 10    | 11     | 11     | 11      | 12     | 13       | 14      | 17     | 18     | 20       | 28 1/2 |

\*GROOVED END NOT AVAILABLE IN 1 1/4"

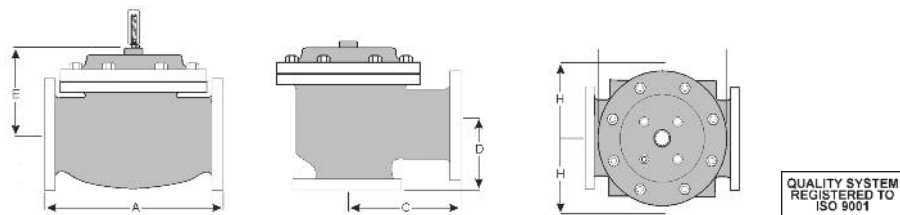
For maximum efficiency, the OCV control valve should be mounted in a piping system so that the valve bonnet (cover) is in the top position. Other positions are acceptable but may not allow the valve to function to its fullest and safest potential. In particular, please consult the factory before installing 8" and larger valves, or any valves with a limit switch, in positions other than described. Space should be taken into consideration when mounting valves and their pilot systems.

A routine inspection & maintenance program should be established and conducted yearly by a qualified technician. Consult our factory @ 1-888-628-8258 for parts and service.

### How to order your Model 127-4 valve

When Ordering please provide:

Fluid to be controlled -Model Number -Size  
 Globe or Angle -End Connection -Body Material  
 Trim Material -Pilot Options -Pressure Setting or  
 Spring Range -Special Requirements / Installation  
 Requirements



QUALITY SYSTEM  
 REGISTERED TO  
 ISO 9001

Represented by:

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