

▲ Model 129

The Model 129 is applicable where inlet pressure must be reduced to a manageable level at an accelerated rate. Typical examples include:

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

SERIES FEATURES

- ▶ 3-way pilot closes valve quickly when outlet pressure rises due to loss of flow demand
- ▶ Reduces a higher inlet pressure to a lower outlet pressure
- ▶ Operates over wide flow range
- ▶ 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
- ▶ Factory tested and can be pre-set to your requirements

Note: The model 129 3-way pilot control circuit cannot be combined with additional hydraulic pilots in series; i.e. backpressure, rate of flow or other functional combinations. Refer to 127 Pressure Reducing Valve Series.

OPERATION

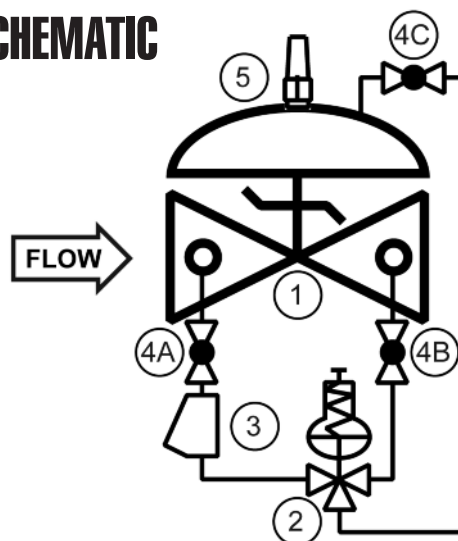
The normally open, spring loaded pilot, sensing downstream pressure, responds to changes in pressure and causes the main valve to do the same. The net result is a constant modulating action of the pilot and main valve to hold the downstream pressure constant. The 3-way pilot utilizes unrestricted flow from the valve inlet to facilitate a rapid closing of the main valve.

COMPONENTS

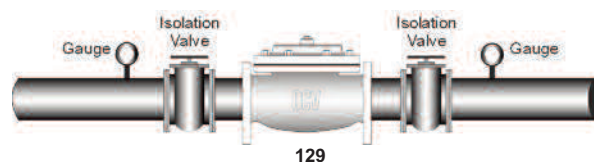
The Model 129 consists of the following components, arranged as shown on the schematic diagram:

- 1.) Model 65 Basic Control Valve
- 2.) Model 1390 Pressure Reducing Pilot
- 3.) Model 159 Y-strainer -
Protects pilot system from dirt/debris
- 4.) Model 141- 4 Isolation Ball Valves
- 5.) 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. The Model 129 is sized per the Series 127 Pressure Reducing Valves. Consult the factory for assistance or visit www.controlvalves.com for our ValveMaster Sizing program.

MAX. PRESSURE

The pressures listed below are maximum pressures at 100°F.

END CONNECTIONS	DUCTILE IRON	STEEL/STN STL	LOW-LEAD 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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 email: sales@controlvalves.com • website: www.controlvalves.com

Model 129



SIZES GLOBE/ANGLE

Screwed Ends - 1 1/4" - 3"
Grooved Ends - 1 1/2" - 6" (globe);
1-1/2" - 4" (angle)
Flanged Ends - 1 1/4" - 10" (globe);
1 1/4" - 10" (angle)

SPRING RANGES (outlet setting)

30-165 psi

FLUID OPERATING TEMPERATURE RANGE

(Valve Elastomers)

EPDM 32°F - 230° F*

MATERIALS

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

Seat Ring: low-lead Bronze, Stainless Steel

Stem: Stainless Steel, Monel

Spring: Stainless Steel

Diaphragm: EPDM*

Seat Disc: EPDM*

Pilot: low-lead Bronze, Stainless Steel

Other pilot system components:

low-lead Bronze/Brass -All Stainless Steel

Tubing & Fittings: Copper/Brass, Stainless Steel

*Others available upon request.

**Valves 1-1/4" through 24" are certified to NSF/ANSI 372. Valves 4" through 24" are also certified to NSF/ANSI 61-G.

SPECIFICATIONS (Typical Water Application)

The pressure reducing valve shall function to reduce a higher upstream pressure to a constant, lower downstream pressure regardless of fluctuations in supply or demand.

DESIGN

The pressure reducing valve shall be a single-seated, line pressure operated, diaphragm actuated, 3-way 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 a Y-strainer 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 low-lead Bronze. Elastomers (diaphragms, resilient seats and O-rings) shall be EPDM. Control pilot shall be low-lead Bronze. The isolation ball valves shall be brass and control line tubing shall be copper.

OPERATING CONDITIONS

The pressure reducing 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 valve shall be a <size> Model 129, <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
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
	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
B	SCREWED	1 7/16	1 11/16	1 7/8	2 1/4	--	--	--	--
	GROOVED	1*	1 3/16	1 7/16	1 3/4	2 1/4	3 5/16	--	--
	150# FLGD	2 5/16-2 1/2	3	3 1/2	3 3/4	4 1/2	5 1/2	6 3/4	8
	300# FLGD	2 5/8-3 1/16	3 1/4	3 3/4	4 1/8	5	6 1/4	7 1/2	8 3/4
C	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
	300# FLGD	4 3/8	5	6 3/8	6 3/8	7 13/16	10 1/2	13 3/16	15 9/16
D	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
	300# FLGD	3 1/8	4 1/8	4 3/8	4 3/8	5 13/16	6 1/2	8 1/2	12 1/16
E	ALL	6	6	7	6 1/2	8	10	11 7/8	15 3/8
H	ALL	10	11	11	11	12	13	14	17

*GROOVED END NOT AVAILABLE IN 1 1/4"

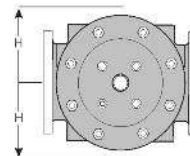
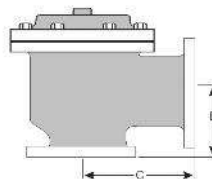
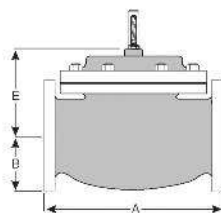
For maximum efficiency, the OCV control valve should be mounted in a piping system so that the valve bonnet (cover) is in the top position. Other positions are acceptable but may not allow the valve to function to its fullest and safest potential. In particular, please consult the factory before installing 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 129 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
Special Requirements / Installation Requirements



QUALITY SYSTEM
REGISTERED TO
ISO 9001

Represented by:

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