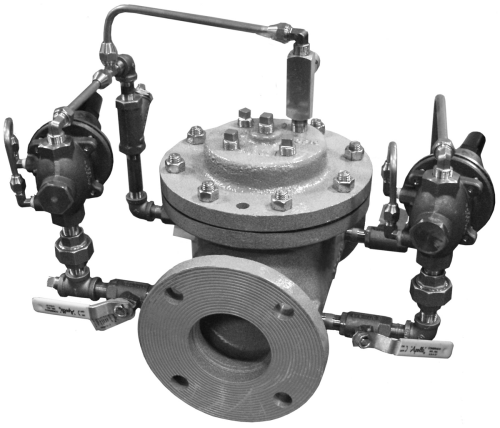


Model 127LF ▲

The Models 127LF and 727LF have a wide range of applications: anywhere a pressure must be reduced to a manageable level under a wide range of demand that cannot normally be provided by a single valve. A typical application is for commercial buildings such as apartment complexes, condominiums, hospitals, etc.

FEATURES

- Reduces a higher inlet pressure to a lower outlet pressure
- Combination of bypass regulator and pilot-operated main valve delivers widest possible flow range
- Constant outlet pressure over wide flow range
- Pilot-operated main valve not subject to pressure fall off
- Can be maintained without removal from the line
- Isolation ball valves to facilitate maintenance and troubleshooting
- Adjustable opening speed
- Factory tested and can be pre-set to your requirements

*Model 127LF uses a "full port" basic valve.
Model 727LF uses a "reduced port" basic valve that enables proper sizing without the use of pipe reducers. Refer to Sizing Guidelines and Valve Dimensions.

OPERATION

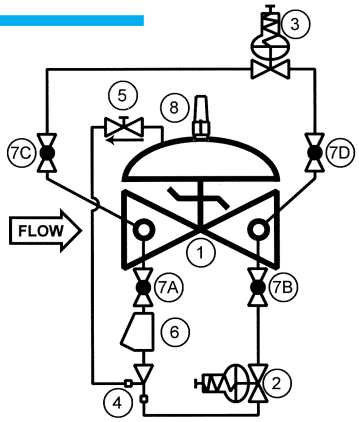
The bypass regulator, typically set 5-10 psi higher than the main valve pilot, controls the pressure under low flow conditions while the main valve remains closed. When the flow capacity of the regulator is exceeded, the pressure drops to the set point of the main valve pilot, causing the main valve to open and provide the higher flow. Response of the main valve is adjusted by an opening speed control.

COMPONENTS

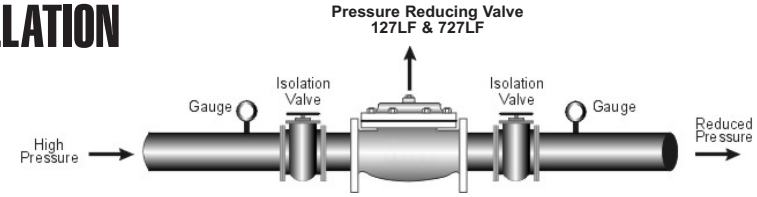
The Model 127 consists of the following components, arranged as shown on the schematic diagram:

1.) Basic 65 Valve Valve Assembly
2.) Model 1340 Pressure Reducing Pilot
3.) Model 1340 Bypass Regulator
4.) Model 126 Ejector
5.) Model 141-3 Flow Control Valve (opening speed control)
6.) Model 159 Y-Stainer
7.) Model 141-4 Isolation Ball Valve
8.) Model 155 Visual Indicator (optional)

SCHEMATIC



RECOMMENDED INSTALLATION



SIZING

The chart shows the minimum - maximum recommended flows based on the differential between inlet and outlet pressures. Consult factory for additional differentials or sizing assistance.

Model	Size	Differential Pressure, PSID				
		20	30	40	50	60
127LF	1 1/4"	0-93	0-113	0-115	0-115	0-115
127LF	1 1/2"	0-109	0-133	0-154	0-160	0-160
127LF	2"	0-189	0-230	0-260	0-260	0-260
127LF	2 1/2"	0-274	0-335	0-375	0-375	0-375
727LF	3"	0-280	0-285	0-285	0-285	0-285

*727LF are reduced port models.

The sizes shown have a low flow of 0-12 GPM. There is a flow "gap" between 12 GPM and the minimum shown. Valves operated continuously in the "gap" area may not provide optimum performance.

Model	Size	Differential Pressure, PSID				
		20	30	40	50	60
127LF	3"	16-483	20-570	23-570	25-570	28-570
727LF	4"	18-545	22-630	26-630	29-630	31-630
127LF	4"	27-805	33-986	38-1000	42-1000	46-1000
727LF	6"	29-865	35-1060	41-1100	46-1100	50-1100

*727LF are reduced port models.

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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email: sales@controlvalves.com • **website:** www.controlvalves.com

Models 127LF & 727LF Pressure Reducing w/Low-Flow

Models 127LF & 727LF

SIZES
Full Port Model 127LF
GLOBE/ANGLE
Screwed Ends - 1 1/4" - 3"
Grooved Ends - 1 1/4" - 4"
Flanged Ends - 1 1/4" - 4" (globe);
1 1/4" - 4" (angle)
Reduced Port Model 727LF
GLOBE Only
Flanged Ends - 3", 4", 6"
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
Body/Bonnet: Ductile Iron (epoxy coated), Carbon steel (epoxy coated), Stainless steel, Bronze -Others available (consult factory)
Seat Ring: Bronze, 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

**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 with low-flow bypass 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 with low-flow bypass 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 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 pistons be used as an operating means. The pilot system shall be furnished complete and installed on the main valve, and shall include an opening speed control, 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 NSF-approved epoxy. The main valve seat ring shall be bronze. Elastomers (diaphragms, resilient seats, and O-rings) shall be Buna-N. Control pilot and bypass regulator shall be ASTM B62 bronze. The opening speed control and isolation ball valves shall be brass and control line tubing shall be copper.

OPERATING CONDITIONS
The pressure reducing valve with low-flow bypass shall be suitable for reducing from 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 with low-flow bypass shall be a <size> Model 127LF <globe pattern, angle pattern>, with <150# flanged, 300# flanged, threaded, grooved> end connections, or Model 727LF, globe pattern, <150# flanged, 300# flanged> as manufactured by OCV Control Valves, Tulsa, Oklahoma, USA.

U.S. DIMENSIONS - INCHES

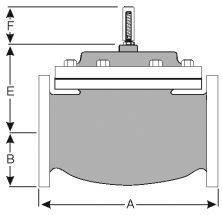
		FULL PORT VALVES - Model 127					REDUCED PORT VALVES - Model 727		
DIM	END CONN.	1 1/4-1 1/2	2	2 1/2	3	4	3	4	6
A	SCREWED	8.75	9.88	10.5	13	--	--	--	--
	GROOVED	8.75	9.88	10.5	13	15.25	--	--	--
	150# FLGD	8.5	9.38	10.5	12	15	10.5	13.5	15.5
	300# FLGD	8.75	9.88	11.12	12.75	15.62	10.88	14.12	16.38
B	SCREWED	1.44	1.69	1.88	2.25	--	--	--	--
	GROOVED	1*	1.19	1.44	1.75	2.25	--	--	--
	150# FLGD	2.31 - 2.5	3	3.5	3.75	4.5	3.75	4.5	5.5
	300# FLGD	2.63 - 3.06	3.25	3.75	4.13	5	4.12	5	6.25
C ANGLE	SCREWED	4.375	4.75	6	6.5	--	--	--	--
	GROOVED	4 3/8*	4.75	6	6.5	7.625	--	--	--
	150# FLGD	4.25	4.75	6	6	7.5	--	--	--
	300# FLGD	4.375	5	6.375	6.375	7.8125	--	--	--
D ANGLE	SCREWED	3.125	3.875	4	4.5	--	--	--	--
	GROOVED	3.125	3.875	4	4.5	5.625	--	--	--
	150# FLGD	3	3.875	4	4	5.5	--	--	--
	300# FLGD	3.125	4.125	4.375	4.375	5.8125	--	--	--
E	ALL	6	6	7	6.5	8	6	6.5	8
H	ALL	10	11	11	11	12	11	11	12

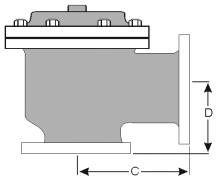
*GROOVED END NOT AVAILABLE IN 1 1/4"

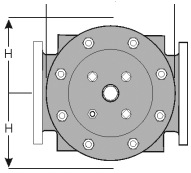
For maximum efficiency, the OCV control valve should be mounted in a piping system so that the valve bonnet (cover) is in the top position. Other positions are acceptable but may not allow the valve to function to its fullest and safest potential. In particular, please consult the factory before installing 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 127LF and 727LF 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.







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