Upstream Pressure Regulating Valves - Series 700

These are self operated upstream pressure regulating control valves, used in many applications for limiting pressure buildup (i.e. prevent overpressure) at its location in the pressure system.

The valve opens in proportion to the inlet pressure preventing a rise of internal pressure in excess of a specified value.

These valves are used on a wide range of applications in the chemical process industry for up-stream pressure control, eg: Refineries, Fertiliser and Petrochemical Plants, Pharmaceutical and Food Processing Plants.

Specification

Design Code	ASME B16-34
Valve Size	15 to 150 mm (1/2" to 6")
Valve Type	Direct or Pilot Operated
Rating	ANSI 150 and 300, Higher on request
End Connection	Flanged – 15mm to 150mm (1/2" to 6") Screwed – 15mm to 50mm (1/2" to 2")
Body Material	Carbon steel, Chrome-moly steel, Stainless steel, Monel, Alloy 20, Hastelloy B/C, Duplex stainless steel, Aluminium bronze
Trim Material	Stainless steel, Duplex stainless steel, 13% Chrome steel, Monel Hastelloy B/C, Stellite
Diaphragm	Neoprene, Natural rubber, Nitrile, EDPM, Viton, Teflon.
Max. Temperature	As per the diaphragm limitations.
Seat Leakage	As per FCI-70-2 Class IV, V and VI

Design Features

- Glandless Construction: Where positive Zero gland packing is required, the design scores over conventional solutions such as bellow seals etc. as the gland itself is eliminated.
- Wide range of body sizes and trim sizes to satisfy varied flow requirements.
- Tight sensitively and stability of controlled pressure.
- Provides excellent tight shut off capability over long working life.
- Compact design with minimum number of moving parts.
- Simple resetting.

Quality and Performance Guarantee

- Produced with Quality Systems accredited to ISO 9001 : 2008
- Full material certification available for all major component Parts.
- Full guarantee on design and performance.
- All testing performed to the requirements of ANSI B16.34.

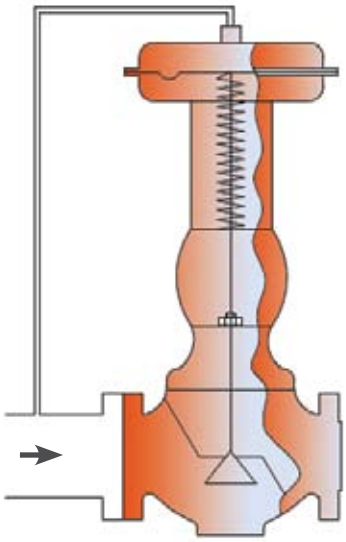
Regulator Vs. Control Valve / Instrument

Selected Regulator Characteristics

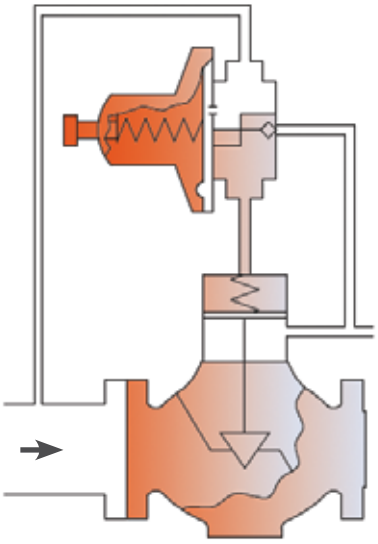
- Purchase price, installation and maintenance costs are normally lower.
- Requires no additional power sources for basic operation
- Less complex, and often lighter and more compact.
- Controller, which provides fixed-band proportional control only, is built in.

Selected Control Valve / Instrument Characteristics

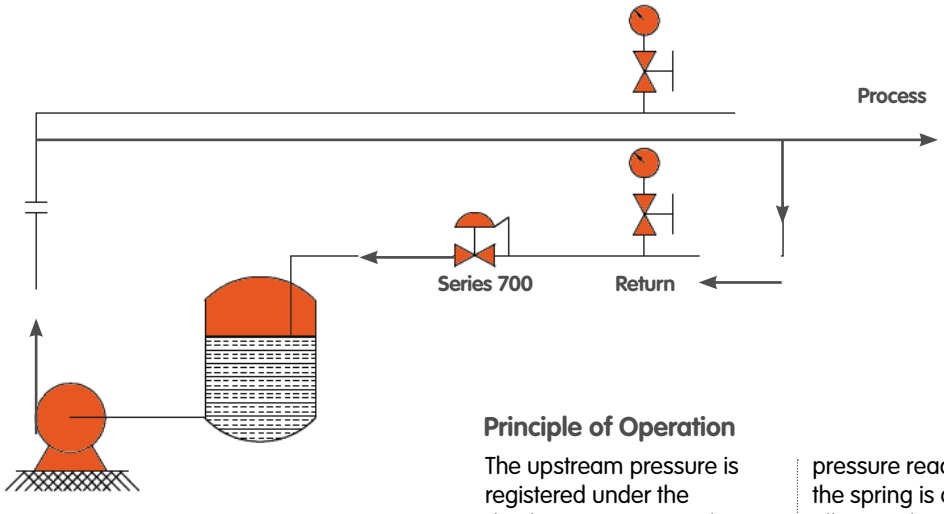
- Wide variety of construction material and accessories available. Transmitting and controlling instruments are separate and may be remote mounted.
- Specific construction has broad application flexibility.
- Separate controller allows for adjustable-band proportional control with reset and/or rate optional for excellent control response.



Direct Operated



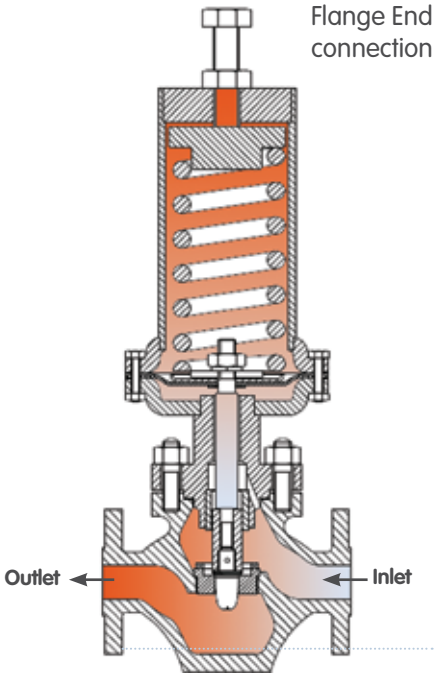
Pilot Operated



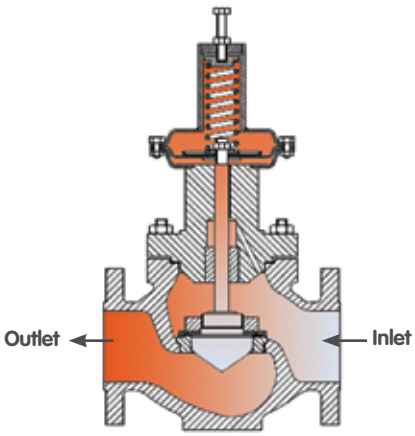
A Typical Application

Principle of Operation

The upstream pressure is registered under the diaphragm opposing the spring when the upstream pressure reaches the set point, the spring is compressed allowing the valve plug to open and relieve excess.



Flange End connection up to 1"



Flange End connection up to 1.1/2" and above