

D100 SERIES
DOWNSTREAM PRESSURE CONTROL VALVE
- DIRECT ACTING



regport 

D100 SERIES

PRESSURE REGULATING VALVE – DIRECT ACTING

Medium Pressure Control

Direct Acting Downstream Pressure Regulating Valves are meant for regulating the outlet / downstream pressure at the pre-determined set value required for the processes. With direct acting Regulators precise pressure control can be achieved at specified process requirements.

Being self actuated it does not require any external energy or utility viz Instrument Air or Electricity for its control or functionality. These are widely used in almost each business segment wherein the various utilities are needed at controlled pressure for various processes.

Typical Applications

- *Utility*
- *Fuel Gas Handling*
- *Material Transfer*
- *Industrial gases*
- *Non-Corrosive gases*
- *Speciality gases*

FEATURES

- **Self Actuated Design** : This series of pressure regulating valves are self actuated or self contained and hence, do not require any external energy like pneumatic air or electricity to operate.
- **Precise Pressure Control** : The precise outlet pressure control is achieved with this design affecting efficient response capability and accuracy.
- **Balanced Trim Design** : Due to balanced trim design, the variation in outlet pressure due to change in inlet pressure is minimal.
- **Easy Maintenance** : The maintenance and inspection of the pressure regulating valve internals is possible without removing body from pipe line.
- **Material selection** : As a standard we provide trim material as AISI 316. Wide range of material is available to suit various services for different process fluids including corrosive fluids. NACE compliance can be provided for sour services.
- **Tamper - Resistant Adjustment** : Cap and adjusting screw discourage on-field tampering of the pressure setting.
- **Load absorbing Diaphragm assembly** : Special load absorbing diaphragm assembly prevents diaphragm failure during heavy load.
- **Leakage Proof** : Combination of metallic and soft seat enables the leakage class VI as per ANSI FCI 70.2.
- **Minimum Maintenance Cost** : The general replacement parts are polymer parts like Diaphragm, Soft Seat & O Rings only and thus the maintenance cost is very low.
- **Easy Change in Set Pressure** : The change in set pressure can easily be achieved by turning the set screw at site. Also, a wide range can be availed with the certain spring and in case, if needed, the spring can be changed at site for achieving desired set pressure with certain limitation.

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DESIGN SPECIFICATIONS

Design Specifications

Design Pressure – As per ANSI 150#, 300# & 600#

Outlet pressure range – 0.3 to 10 Bar with different model configurations

Design Temperature – (-)10 to 80°C with BunaN polymer and (-)20 to 150°C with Fluroelastomer

MOC Specifications

Body – Cast carbon steel, Stainless Steel 304, 316, AlumBronze and other on request
Internals – SS316 (Standard), SS316L, AlumBronze, Monel, Hastalloy B/C and other on request
Soft Seat & Polymer – Buna N (Nitrile), Neoprene, Fluroelastomer, PTFE and other on request

Diaphragm – Reinforced Polymers like Buna N (Nitrile), Neoprene, Fluroelastomer and PTFE
Spring Housing – Fabricated Steel (Standard) and other on request

- Other special material available on request. Please consult with our Sales team.

Constructional Specifications

Body size – ½", ¾", 1", 1½" & 2"

End Connection –

Screwed – ½", ¾", 1", 1½" & 2"

Cast Flanged ANSI B16.5 as per 150#, 300# & 600#–

½", ¾", 1", 1½", 2" & 3"

(Higher size and Rating available on demand)

Flow capacities – Refer Cv Table

Weight – Refer Table for Flanged end

Screwed end

½", ¾", 1"	:	15 Kg (max.)
1½"	:	22 Kg (max.)
2"	:	28 Kg (max.)

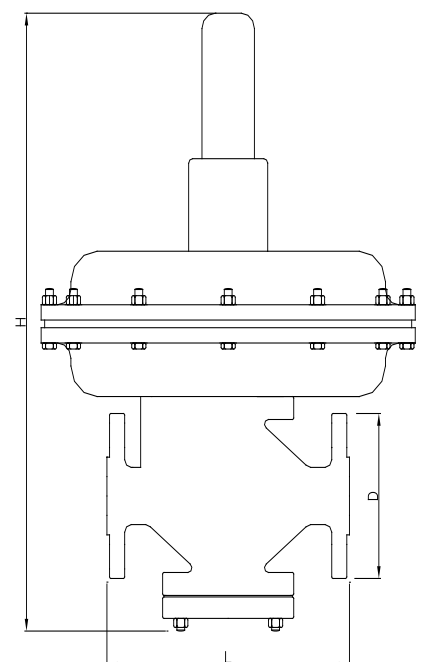
Dimensions : Refer Table

EXTERNAL DIMENSIONS

All dimensions are in mm AND Other dimensions of flange shall be as per ASME standard.

ASME B16.5 FLANGED 150#				ASME B16.5 FLANGED 300#			
SIZE	L	D	H (MAX)	SIZE	L	D	H (MAX)
½"	184	89	500	½"	190	95	520
¾"	184	98.3	500	¾"	194	117	520
1"	184	108	500	1"	197	123.6	520
1½"	222	127	550	1½"	235	155.4	570
2"	254	152.2	550	2"	267	165	570

ASME B16.5 FLANGED 600#				ASME B16.5 FLANGED 1500#			
SIZE	L	D	H (MAX)	SIZE	L	D	H (MAX)
½"	203	95.3	550	½"	273	120.7	550
¾"	206	117.3	550	¾"	273	130	550
1"	210	124	550	1"	273	149.4	550
1½"	251	155.4	600	1½"	311	177.8	600
2"	286	165.1	600	2"	340	215.9	600



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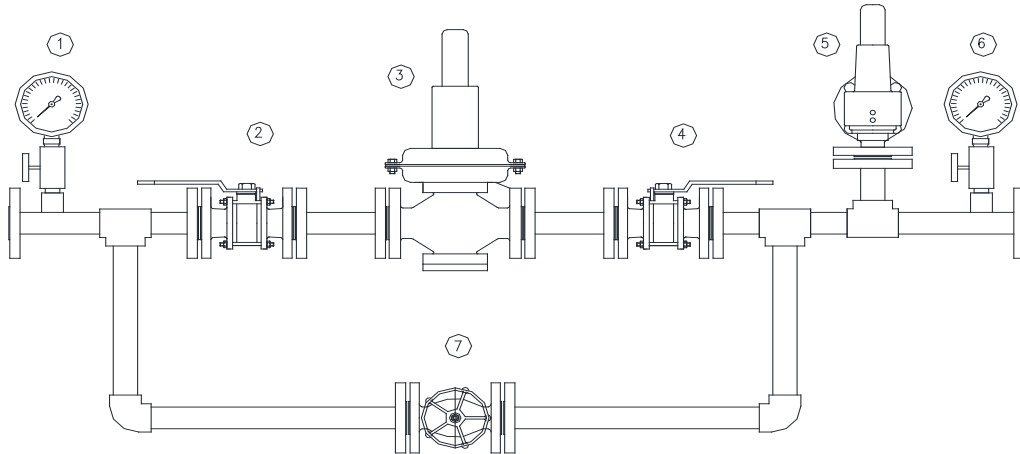
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VALVE CO-EFFICIENTS Cv VALUES

Valve Size	½"	¾"	1"	1½"	2"
Cv Value	1.2	2.1	4.0	7.5	10.0

NOTE: These Cv values are with standard trim size. Smaller Cv values can be provided with lesser port/ trim size in same SAPCV.

TYPICAL INSTALLATION



1	Inlet Pressure Indicator
2	Inlet Isolation Valve
3	Pressure Regulator – D100
4	Outlet Isolation Valve

5	Safety Relief Valve
6	Outlet Pressure Indicator
7	By-Pass Valve

Typical Installation : Typical Installation indicating the recommended set up for mounting the Direct Acting Downstream Pressure Control Valve for continuous process.

D100 –Self Actuated – Direct Acting - Downstream Pressure Control Valve

ORDERING SPECIFICATIONS

SERVICE FLUID / MEDIA

INLET PRESSURE

FLOW MIN./ MAX.

SPECIFIC GRAVITY

BODY MOC

OUTLET PRESSURE

SET PRESSURE

TEMP. MIN./MAX.

INTERNALS MOC



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