

Model PRV-71H Pressure Reducing Valve

Hydro Instruments series PRV-71H (manual version) pressure reducing valve (PRV) is used to reduce and control the gas pressure downstream of the valve. The PRV-71H is designed for chlorine, sulfur dioxide or ammonia gas service.

Manual adjustment of the upper end cap allows the operator to set and control the outlet gas to a fixed pressure. Adjustment is effected by the compression of a spring to a height that will control the outlet pressure to the desired level. In the case of a diaphragm failure, a 1/4" FNPT vent connection is provided.

The PRV-71H is used to:

- 1. Prevent liquefaction downstream of the valve.
- 2. Protect equipment from excessive pressure.
- 3. Prevent downstream pressure fluctuations.



General Specifications

Maximum Inlet Pressure: 300 psig (21 barg) Minimum Inlet Pressure: 45 psig (3.1 barg) 0-45 psig (0-3.1 barg) Outlet Pressure Range:

Operating Temperature: -15 °F (-26 °C) to 225 °F (107 °C)

Inlet/Outlet Connections: 3/4" FNPT or 1" FNPT

1/4" FNPT Vent Connection:

Mounting: Inline or Wall Mounted

Maximum Feed Capacity: 12,000 PPD Cl₂(6,000 PPD NH₃)

227 Kg/hr. Cl₂ (114 Kg/hr. NH₃)

Design & Materials of Construction

Designed with a removable valve capsule for easy maintenance and change of capacity.

- Machined Carbon Steel Bodies
- ECTFE (Halar) Double Diaphragm
- PTFE (Teflon) Valve Seat
- PVDF (Kynar) Valve Plug

Should the downstream pressure exceed the control pressure setting, the diaphragm will move to close the valve, shutting off the gas flow.

Ordering Information

PRV-71H-A-B-C-D-E

A. Gas C12 = ChlorineSO2 = Sulfur Dioxide

B. Capacity $2 = 8000 \text{ PPD Cl}_2, \text{SO}_2$ (4000 PPD NH₃)

 $3 = 12000 \text{ PPD Cl}_2, \text{SO}_2$ (6000 PPD NH₃)

C. Power Option 0 = Manual

1 = 120 VAC electric* 2 = 240 VAC electric**frequency: 50/60 Hz D. Mounting 0 = None1 = Wall

E. Inlet/Outlet 0 = 3/4" FNPT 1 = 1" FNPT

Hydro Instruments

NH3 = Ammonia

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Model PRV-71H Electronically Actuated Pressure Reducing Valve

Hydro Instruments series PRV-71H (electronically actuated version) pressure reducing valve (PRV) is used to reduce and control the gas pressure downstream of the valve. The PRV-71H is designed for chlorine, sulfur dioxide or ammonia gas service.

Adjustment of the reducing valve is done by setting the position of the lock nuts on the failsafe actuator. When powered, the actuator will drive the shaft into operating position and remain there until loss of power or an alarm condition exists to close the valve. In case of diaphragm failure, a 1/4" FNPT vent connection is provided.

The PRV-71H is used to:

- 1. Prevent liquefaction downstream of the valve.
- 2. Protect equipment from excessive pressure.
- 3. Prevent downstream pressure fluctuations.
- 4. Allow for remote closure in loss of power or alarm conditions.

General Specifications

Maximum Inlet Pressure: 300 psig (21 barg)
Minimum Inlet Pressure: 45 psig (3.1 barg)
Outlet Pressure Range: 0-45 psig (0-4.1 barg)

Operating Temperature: -15 °F (-26 °C) to 150 °F (65 °C)

Inlet/Outlet Connections: 3/4" FNPT or 1" FNPT

Vent Connection: 1/4" FNPT

Mounting: Inline or Wall Mounted

Maximum Feed Capacity: 12,000 PPD Cl₂(6,000 PPD NH₃)

227 Kg/hr. Cl₂ (114 Kg/hr. NH₃)

Power Supply: 120 VAC or 240 VAC +/- 10% Relay: 1 N.O. or N.C.; rated for 22 amps



Design & Materials of Construction

Designed with a removable valve capsule for easy maintenance and change of capacity.

- Machined Carbon Steel Bodies
- ECTFE (Halar) Double Diaphragm
- PTFE (Teflon) Valve Seat
- PVDF (Kynar) Valve Plug
- Aluminum Yoke & Actuator Enclosure

Upon loss of power or alarm relay, the pressure reducing valve will automatically close within 6-8 seconds

Ordering Information

PRV-71H-A-B-C-D-E

A. Gas B
Cl2 = Chlorine
SO2 = Sulfur Dioxide

B. Capacity 2 = 8000 PPD Cl₂, SO₂ (4000 PPD NH₃)

(4000 PPD NH₃) 3 = 12000 PPD Cl₂, SO₂ (6000 PPD NH₃) C. Power Option 0 = Manual 1 = 120 VAC electric*

1 = 120 VAC electric* 2 = 240 VAC electric* *frequency: 50/60 Hz D. Mounting 0 = None

E. Inlet/Outlet 0 = 3/4" FNPT 1 = 1" FNPT

1 = Wall 1 = 1" FNPT

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NH3 = Ammonia

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