

## PROPORTIONAL PRESSURE REDUCING VALVE



30D-6-PR[D]

DOROT model PR[D] is an automatic, pressure reducing valve, activated by the pressure of the pipeline.

The valve creates a fixed ratio between upstream pressure and downstream pressure, regardless of fluctuations of upstream pressure and flow rate.

The valve is a double chamber [D] type. Its control chamber is permanently connected to the downstream.

Downstream pressure, applied to the top side of the diaphragm, creates hydraulic power which is balanced by the power created by upstream pressure to the seal disc. The area difference between the diaphragm and the seal disc determines the pressure ratio of approximately 2.7:1.

No other control device is needed.

Should downstream pressure exceed the above mentioned ratio (due, for example, to a halt in the pipeline flow), the valve closes drip tight.

The valve instantly closes when downstream pressure exceeds upstream pressure, serving as a check valve.

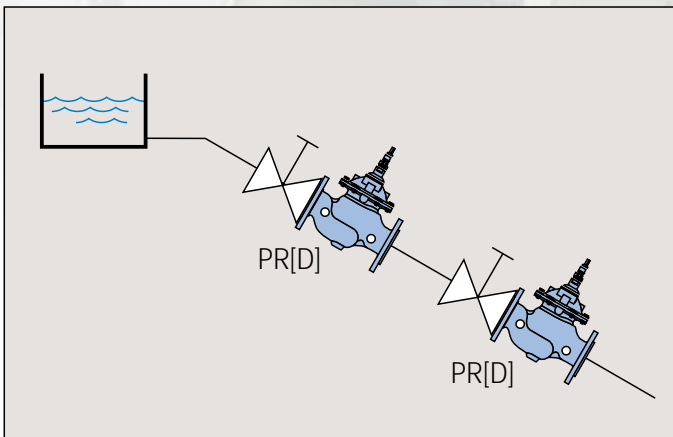
The main valve is supplied in two models:

**Model 30D, 30AD** for medium pressure (up to 16 bar / 230 psi)

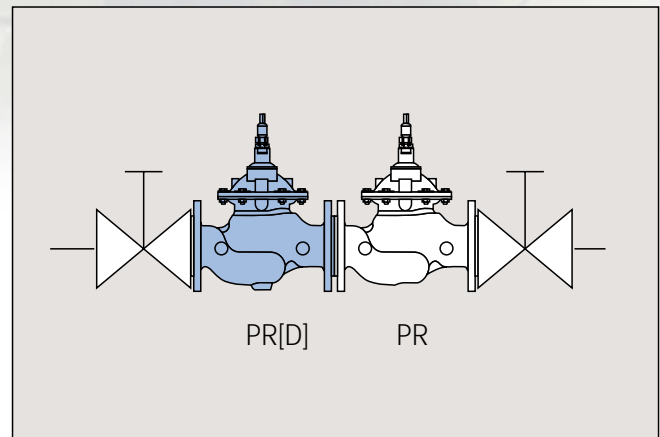
**Model 31D, 31AD** for high pressure (up to 25 bar / 350 psi).

For further information see p.G5; and graph #2 on page G5-b.

### Typical Application:

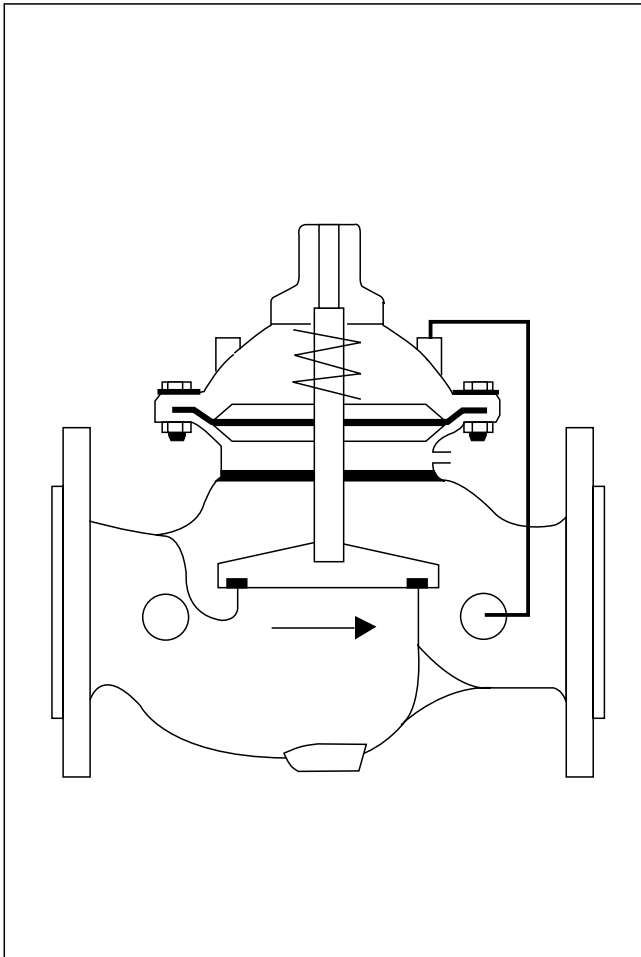


The "PR[D]" Valves, installed sequentially, reduce the pressure in the main pipe.



Assembly of a "PR[D]" Valve, upstream of a "PR" Valve, creates a two-stage, cavitation-free, pressure reducing station.

## Schematic Control Diagram



## Purchase Specifications

*(Insert value)*

- The valve will maintain downstream pressure at a 1:2.7 ratio to upstream pressure, regardless of varying upstream pressure and flow rate.
- The valve will be a hydraulically operated, diaphragm actuated, double chambered, Globe Type.
- The main valve will consist of a removable SST seat and resilient Rubber seal fully supported by a seal disc.
- A removable separation disc will separate the diaphragm assembly from the controlled liquid, creating a control chamber below the diaphragm.
- The stem will be guided at the top by a replaceable guide bearing in the valve bonnet, and at the bottom, by a Bronze centering device, connected to the seal disc and moving freely inside the seat.
- No bottom guide bearing is permitted.
- The diaphragm will be fully supported, top and bottom, by rigid discs and will be connected to the stem in a way which enables fast and easy replacement on site.
- No external packing gland and piston activation is permitted.
- Face-to-face length dimension meets ISO 5752(S-1) Standard.
- Flange standard will be to *(network standard)*.

The valve shall be DOROT mod. 30D (31[D]) - *(size)* - PR[D] or equal in all aspects.

## Design Notes

The downstream pressure of the "PR[D]" Valve is not fixed to a preset value but is a function of the upstream pressure. **Beware of possible excessive downstream pressure in sensitive networks when upstream pressure is very high.**

The pressure ratio is effected by the flow rate and by upstream pressure. Increased flow tends to increase pressure ratio.

## Operating Data Checklist

*(Please fill out and send to the distributor when ordering)*

Maximum Flow Rate:	_____
Maximum Upstream Pressure:	_____
Minimum Upstream Pressure:	_____

## Optional Features

Electric On-Off Control (add code "EL").  
When ordering specify "normally closed" (N.C) or "normally open"(N.O.).  
See p. 1A-1 for further information.

## How To Order

Please specify the requested valve in the following sequence (see example below):

Model	Size	Connection Standard	Control Function	Additional Features	Special Instructions
30[D], 30A[D] 31[D], 31A[D]	(Inch): 1 1/2" - 20"	ISO, ANSI, JIS etc.		Electric On-Off Control	
↓	↓	↓	↓	↓	↓
30[D]	— 6	— ISO PN16	— PR[D]	/ EL (N.O.)	— Position Indicator