

30-PR[D] Proportional Pressure-Reducing Valve

Principal of operation

The Dorot Series 300 Proportional Pressure-Reducing Valve ('30-PR[D]'), is an automatic, proportional pressure-reducing valve. The valve is a double-chambered valve that will control the downstream pressure to vary in a fixed proportion in relation to the upstream pressure-value.



S300 Features

- Superb performance:
 - Regulates at a stable mode, regardless of valve-size, down to near-zero flow. Thus, eliminating the need for a special low flow plug-design (such as 'V-port') or a bypass valve.
 - 'Floating', low-friction internal-trim design, guided by unique LPT® device.
- High reliability:
 - All control ports are fitted with SST sleeves for preventing corrosion-blockage.
 - Pre-shaped reinforced diaphragm – for easier assembly and improved longevity.
- Reduced periodic inspection/maintenance labor:
 - The control-trim is fitted with a self-flushing, inline control-filter.
 - Easy in-situ adjustment and maintenance.
- Versatility:
 - A standard and simple single-chamber valve design, provides smooth operation. Conversion to a double chamber is a patented option.

Standard Materials

- Body & Cover – Ductile Iron
Optional – Cast Steel, SST, N.A.B, S.Duplex
- Main Internal – SST (1.5"-6), Coated steel (8"-32")
Optional – Cast Steel, SST, N.A.B, S.Duplex
- Elastomers – EPDM
Optional – NBR, Neoprene, Viton or others
- Coating – Polyester, Epoxy / Optional – Halar and others
- Control trim – Brass, PA / Optional – SST316, Duplex

Purchase Specifications

- Face-to-face length dimension meets ISO 5752 Standard.
- The stem will be guided at the top by a replaceable guide bearing and at the bottom by a stainless steel unique LPT® device.
- The valve will regulate any flow within the specified range without the need for a smaller bypass valve or throttling plug.
- All control ports will be corrosion free protected by stainless steel 316 inserts.

Design Considerations

- The valve should be suited for the maximal flow and allowed Headloss.

Quick Sizing

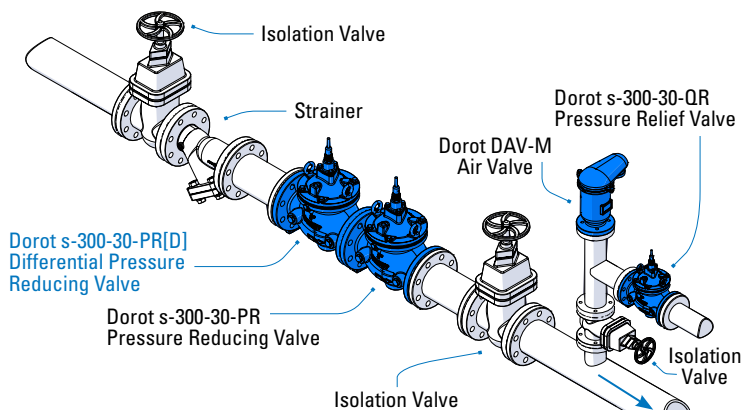
- Valve sized to be the same as line-size or one nominal-size smaller.
- Maximum recommended flow velocity for continuous operation 5.5 m/sec (18 ft. /sec).

Pressure rating

- Model 30, 30A for medium pressure (PN16 bar / 250 psi)
- Model 31, 31A for high pressure (PN25 bar / 360 psi)

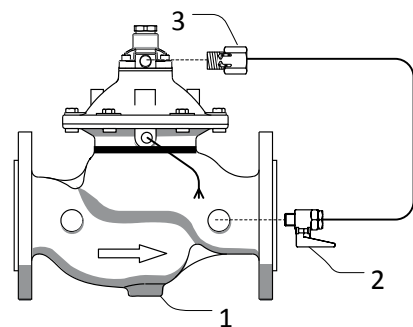
Typical Installation

Typical applications Includes a Proportional Pressure Reducing Valve Model 30-PR[D]. Assembly of a PR[D] valve, upstream of a PR Valve, creates a two-stage, cavitation-free, pressure reducing station. Installation of a Quick Relief Valve, model 30-QR and DAV-M air valve, downstream of the PR Valve is recommended.



Main Control System Components*

1. Main Valve
2. Ball valve
3. Nozzle



* Indicative drawing