

30-HyMod Flow-Modulated Pressure-Reducing Valve

Principal of operation

Dorot model 'HyMod' is an automatic pilot controlled, flow-modulated pressure reducing valve activated by the pressure of the pipeline. The valve reduces upstream pressure to a downstream pressure that increases or decreases simultaneously with the demand flow. The pressure into the zone is continually adjusted according to the zone's actual demand, thus compensating for the system loss. The pressure-flow profile can be adjusted. The Dorot HyMod will control from no flow, to maximal full open flow without any chattering or slamming.

Features

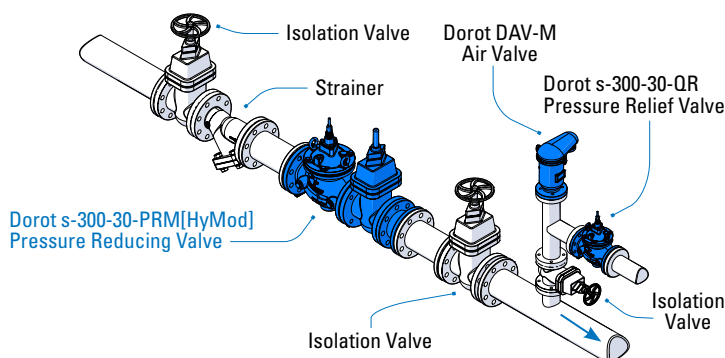
- Superb performance:
 - Regulates at a stable mode, regardless of valve-size, down to near-zero flow. Thus, eliminating the need for a special low flow plug-design (such as 'V-port') or a bypass valve.
 - 'Floating', low-friction internal-trim design, guided by unique LPT® device.
- High reliability:
 - 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

Typical Installation

Typical applications include Flow-Modulated Pressure Reducing Valve Model 30-HyMod. Installation of a Quick Relief Valve, model 30-QR and DAV-M air valve, downstream of the PR Valve is recommended.



Purchase Specifications

- The valve will be hydraulic, pilot-operated globe type.
- 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.
- In case upstream pressure may drop below the required set pressure, select a 3-way control pilot.
- Large pressure differentials may cause cavitation damage. Consult Dorot for solutions if such conditions are expected.

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)

Main Control System Components*

