

## 30-FLDI Differential Float Valve

### Principal of operation

The Dorot Series 300 Differential Float Valve ('30-FLDI') is an automatic, pilot controlled, level control valve, activated by the pressure of the pipeline. The valve closes when the water rises to the requested maximum level and opens when the water level drops to the preset minimum point. The differential between opening and closing levels is adjustable.

*\*Optional Addition: FLDISP Stepped Surge-Preventing Closure or 'FR (PR)' Flow control function.*



### 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

- 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.
- Large pressure differentials may cause cavitation damage. Consult Dorot for solutions if such conditions are expected.

### Quick Sizing

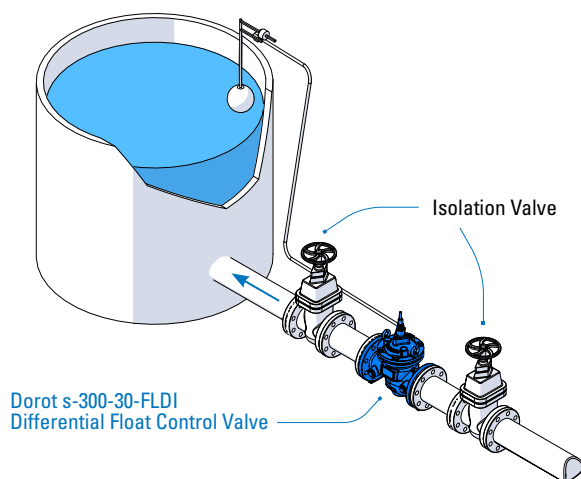
- Valve sized to be the same as line-size or one nominal-size smaller.
- Maximum recommended flow velocity for continuous operation 5.5 m/sec (18 ft. /sec).

### Pressure rating

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

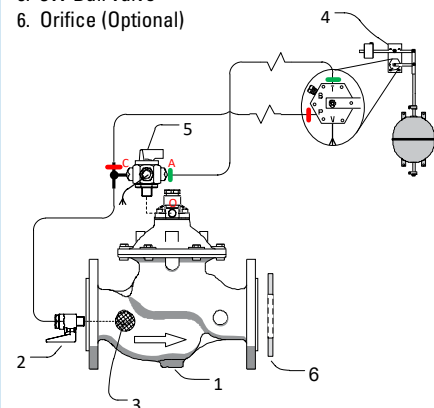
### Typical Installation

Typical applications include a Differential Float Valve Model 30-FLDI. The valve will open when the level reached a set opening height and close on a set lower/higher level. (Integrated features such as Flow control, cavitation and water hammer protections are available)



### Main Control System Components\*

1. Main Valve
2. Ball valve
3. Self-flushing filter
4. 3W FLDI Pilot Valve
5. 3W Ball valve
6. Orifice (Optional)



\* Indicative drawing