



30-6-AL

DOROT model "AL" is an automatic, pilot controlled, level control valve, activated by the pressure of the pipeline.

The valve is mounted on the tank or reservoir inlet, below or above the requested water level.

The pilot valve, located outside the tank or reservoir, senses the hydrostatic pressure of the water level. The pilot valve can either be assembled on the main valve or (for above-level installation) can be connected to the main valve by command tubes.

The standard valve closes when the water rises to the requested maximum level and opens when the water level drops to the preset minimum point.

High level opening / low level closing valves are supplied on request.

The "Altitude Control Valves" are available in two versions:

1. The "One-Way Flow Valve" (standard feature), prevents returning flow even if downstream pressure exceeds upstream pressure when the supply pump shuts down.
2. The "Bi-Directional Flow Valve" (add code "BD"), allows for reverse flow when the upstream pressure drops below the tank static pressure.

The main valve is supplied in two models:

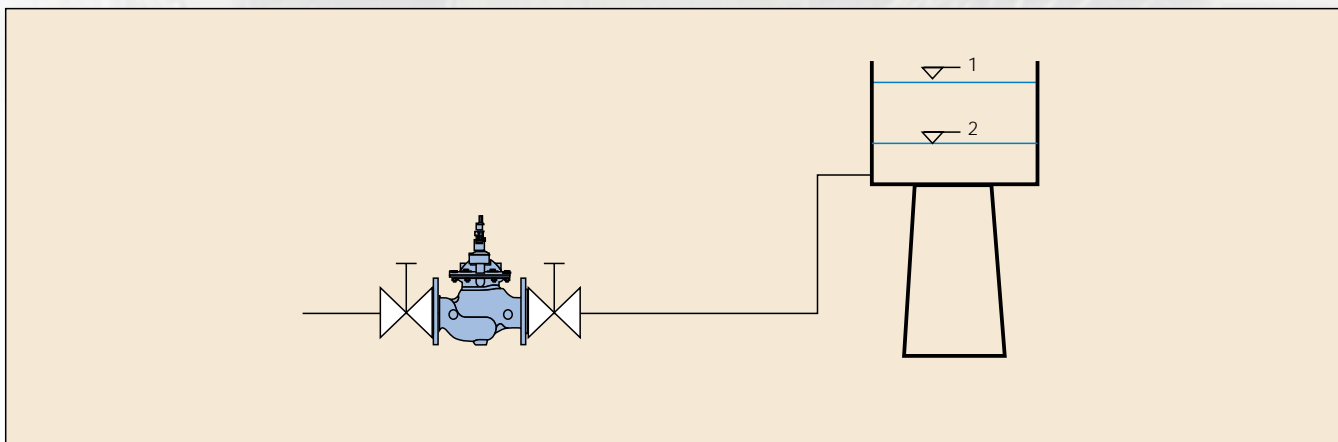
**Model 30, 30A** for medium pressure (up to 16 bar / 230 psi)

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

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

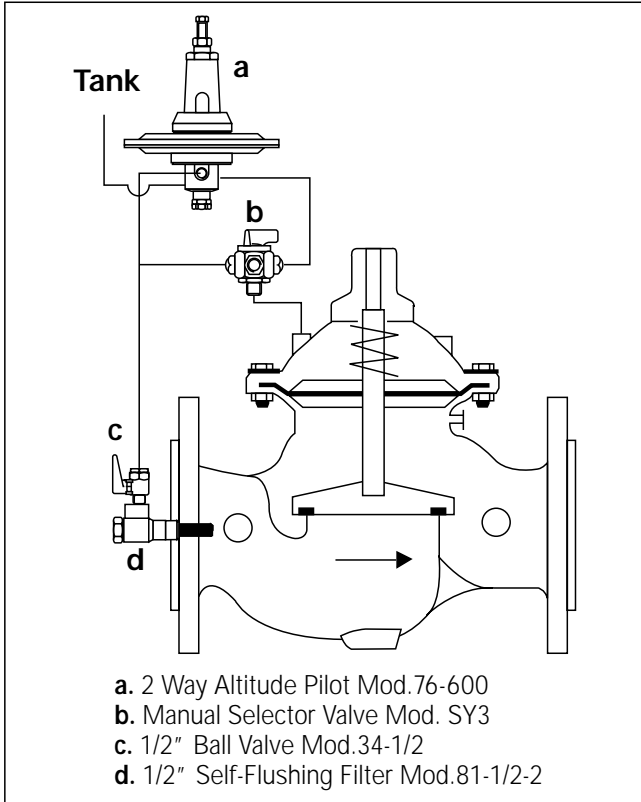
For pilot data refer to G6-d.

### Typical Application:



The "AL" Valve controls maximum and minimum levels in a water tower by responding to the static pressure of the water. One-way flow (filling only) or bi-directional flow are optional.

## Schematic Control Diagram



## Design Notes

The pilot valve must be located at least 2m (6 ft.) below the minimum level. The maximum level should not be more than 50m (160 ft.) above the pilot valve.

*Closure of the valve can cause serious pressure surges if the supply pipe is long.  
 Refer to SP p. 7C-1 for surge protection information..*

## Optional Features

Electric On-Off Control (add code "EL").  
 See p. 1A-1 for further information.

Surge-Preventing Closure (add code "SP").  
 See p. 7C-1 for further information.

Back Pressure Sustaining (add code "PS").  
 See p. 3A-1 for further information.

Bi-Directional (add code "BD").

## Purchase Specifications

(Insert value)

- The valve will be controlled by a pilot valve which is operated by hydrostatic pressure and is located outside the tank.
- The pilot closes (*opens*) the valve when the water reaches the maximum level and opens (*closes*) it when the water level drops to its preset minimum point.
- Reverse flow will be permitted when the upstream pressure is lower than the tank's hydrostatic pressure. (For bi-directional flow, add code, "BD").
- The main valve will be installed (*value*) below the maximum water level.
- Requested levels differential is (*minimum differential*).
- The main 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.
- 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 control system will consist of:

- 2-Way Altitude Control Pilot.
- Manual Override Selector Valve.
- Self-Flushing, Removable, Internal Filter.

The valve shall be DOROT mod. 30 (31) - (*size*) - AL or equal in all aspects.

## Operating Data Checklist

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

Required Flow Rate:	_____
Maximum Upstream Pressure (on closed valve):	_____
Level Above Valve	_____
Maximum:	_____
Minimum:	_____

## 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, 30A 31, 31A [D]	(Inch): 1 1/2" - 20"	ISO, ANSI, JIS etc.		Electric On-Off Control	
↓	↓	↓	↓	↓	↓
30	— 6	— ISO PN16	— AL	/ EL (N.O.)	— Position Indicator