# 300 Series

Automatic Hydraulic Control Valves

**DI**

## PRESSURE DIFFERENTIAL SUSTAINING VALVE

*30-6-DI*

DOROT model "DI" is an automatic, pilot controlled, pressure differential sustaining valve, activated by the pressure of the pipeline.

The valve is assembled in the pipeline and modulates to maintain a steady, predetermined pressure difference between two points in the network.

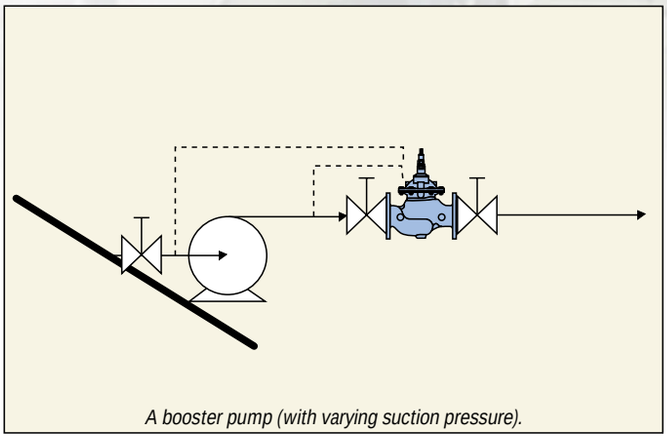
Should the high pressure side increase, or low pressure side decrease, the valve opens, thus reducing the differential.

In case the pressure differential falls below the required set-point, the valve closes drip-tight.

The main valve is supplied in two models,
**Model 30, 30A** for medium pressure (up to 16 bar / 250 psi)
**Model 31, 31A** for high pressure (up to 25 bar / 350 psi).

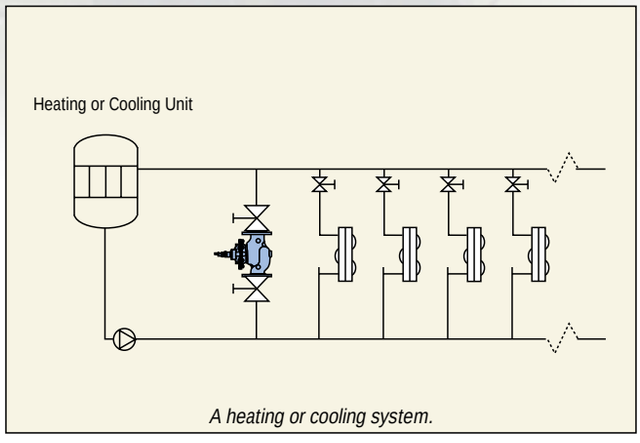
*For further information see p. G5; and graph #2 on page G5-b.*
*For pilot data refer to p. G6-b.*

## *Typical Application:*



*A booster pump (with varying suction pressure).*

The "DI" Valve, sensing both sides of the pump, maintains a preset dynamic head, hence a stabilized flow rate.




*A heating or cooling system.*

The "DI" Valve, installed as a bypass, provides a uniform pressure differential to the heat exchangers, regardless of the number of active units.

DOROT AUTOMATIC CONTROL VALVES

**KIBBUTZ DOROT Mobile Post HOF ASHKELON 79175 ISRAEL.**

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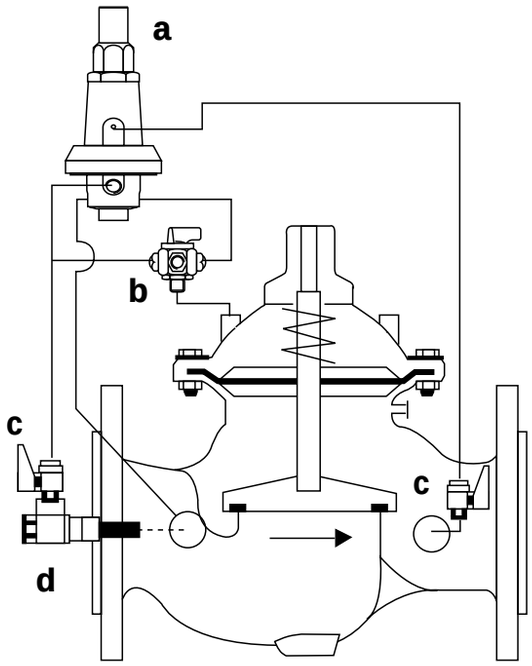
## Schematic Control Diagram




**a.** Differential Pilot Mod.76-200

**b.** Manual Selector Valve Mod.SY3

**c.** 1/2" Ball Valve Mod.34-1/2

**d.** 1/2" Self-Flushing Filter Mod.81-1/2-2

## Purchase Specifications

*(Insert value)*

- The valve will maintain a constant pressure difference of minimum *(value)* between the upstream and downstream.
- The valve will fully open when the pressure differential exceeds the preset point and the valve will close drip-tight when the differential falls below the set-point.
- The valve will be a hydraulically operated, diaphragm actuated, Globe Type.
- The main valve will consist of a removable SST seat and a 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:
- 3-Way Differential Pilot Valve
- Self-Flushing, Removable, Internal Filter
- Manual Closure Valve

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

## Design Notes

Regulating valves may operate in destructive cavitation conditions.
*Refer to p.G6 for further information.*

## Optional Features

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

Hydraulic Check Valve Function *(add code "**CV**").*
*See p.1B-1 for further information.*

## Operating Data Checklist

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

Maximum Flow Rate: _____

Maximum Upstream Pressure: _____

Required Differential Pressure: _____

## 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<br>31, 31A<br>[D] | (Inch): 1½" - 20" | ISO, ANSI, JIS etc. | | Electric On-Off Control | |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 30 | — 6 | — ISO PN16 | — DI | / EL (N.O.) | — Position Indicator |