

## Pressure-Differential sustaining

The 31-10D is a 3-way, diaphragm actuated, spring-loaded pilot-valve that is designed for control of pressure-regulating hydraulic-valves. The pilot valve operates as a selector between the common port and the two other ports. The pilot valve will vent, pressurize or lock the hydraulic valve's chamber as a factor of the relation between the regulated pressure and the adjusted set-value. The 31-10D pilot-valve can be used for implementing wide range of hydraulic control-functions.

## Features

- 3-way pilot valve
- Minimize pressure losses through the main valve by completely venting the control chamber
- Wide regulation range
- Accurate and easy to adjust
- Simple design and maximal dependability
- Same pilot valve can be used for various control functions by simply changing the way it is connected to the valve
- Can be activated by hydraulic or pneumatic pressure

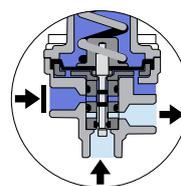


## Typical applications

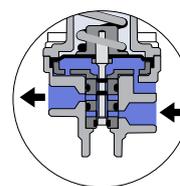
- Pressure differential reducing – PD
- Pressure differential sustaining – DI

## Technical data

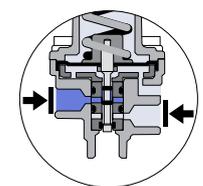
General	
Max. upstream pressure	25 bar / 360 psi
Pressure adjustment range	0.5 - 12 bar / 7 - 175 psi
Temperature	60°C max. / 140°F max.
Weight	1.9 Kg / 4.2 lbs
Materials	Standard
Body and bonnet	Brass
Elastomers	EPDM / NBR
Internal parts	SST316 + PVDF
Spring	SST 302 / SST 316
Dimensions	
H (Height) max.	190 mm / 7.5"
W (Width)	60 mm / 2.4"
Port Connections	
1, 2, 3, 4	NPT 1/4"
5	NPT 1/8"



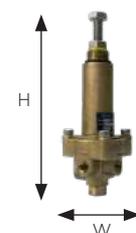
Low Differential



High Differential



Required Differential



## Installation

### Connections

Port	PD – Differential pressure reducing	DI – Differential pressure sustaining
1	High sensing pressure	Upstream pressure
2	Upstream	Vent
3	Valve control chamber	Valve control chamber
4	Vent	Upstream pressure
5	Low sensing pressure	Downstream pressure

\* DI version can be used for implementing remote-control pressure sustaining. When the spring chamber is pressurized the valve will close.

### Springs adjustment range

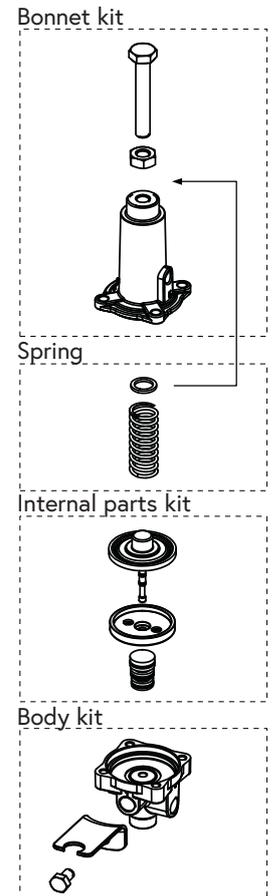
Spring number	Color	bar	psi
124 (Std.)	Red	1.5 - 12	20 - 175
130	Green	0.5 - 6	7 - 85

Adjustment: Turn the adjusting screw clockwise to increase the set point

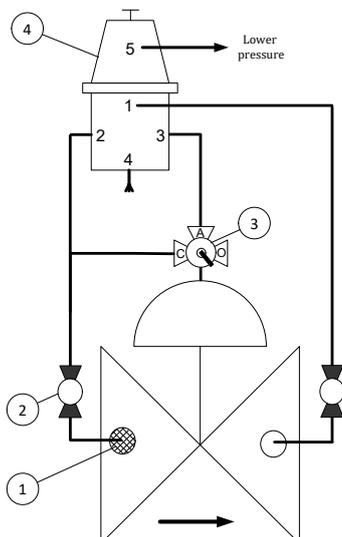
### Main components

#	Description
1	Self flushing filter
2	Isolation ball valve
3	3-way Manual override selector valve
4.	31-10D Pilot valve

### Spare parts



Pressure Differential Reducing



Pressure Differential Sustaining

