

## Differential pressure sustaining, 2-way metal pilot-valve

the CXSD is a 2-way, diaphragm actuated, spring-loaded differential pressure-sustaining pilot-valve, designed for control of hydraulic valves. The pilot valve modulates to keep a steady, pre-set differential pressure between two points in the water system. As the differential pressure rises above the adjusted value, the pilot-valve opens to allow water flow between its "COM" and "OUT" ports, thus allowing the water in the main valve's chamber to be vented out to the downstream and causing the main valve to open. As the differential pressure falls below the set-value, the pilot valve throttles the internal passage, restricting the flow out of the main valve's control-chamber, restricting the valve's opening or causing it to close (if necessary).

### Features

- A 2-way pilot valve
- Remote-sensing, differential-pressure sustaining
- Normally-close, will open when the differential pressure exceed the adjustable spring setting
- Integral SST needle valve - highly accurate and simplify the control-loop assembly
- Wide regulation range: a single spring is used for setting range of 3-19 bar / 45-275 psi. No need for different springs for that range!
- Easy to adjust
- Superb accuracy and repeatability



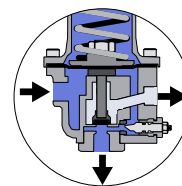
### Typical applications

- Pressure differential sustaining - DI
- Remote-controlled pressure sustaining - PS/EL or PS/RC

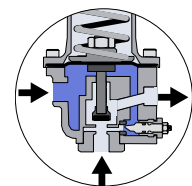
### Technical data

General		
Pressure rating	25 bar / 360 psi	
Pressure adjustment range	0.3 - 19 bar / 4 - 275 psi	
Fluid temperature	80°C max. / 176°F max.	
Weight	2.23 Kg / 4.92 lbs	
Materials	Standard	Optional*
Body and bonnet	Brass	SST/Bronze
Elastomers	EPDM	
Internal parts	SST+Brass	
Spring	SST	
Dimensions		
H (Height) max.	215 mm / 8.46"	
W (Width)	84 mm / 3.31"	
Port Connections		
I, C, S	NPT 1/4"	
O	NPT 1/2"	

\* other materials available upon demand



Low pressure



High pressure



## Installation

### Main components

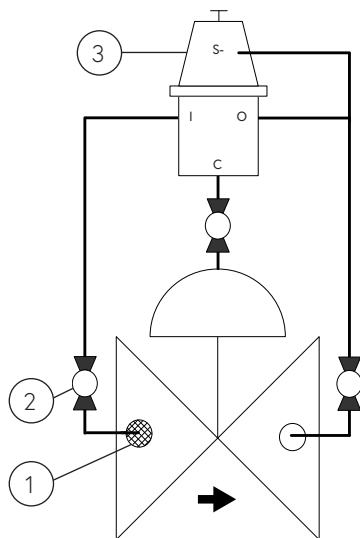
#	Description
1	Self flushing filter
2	Isolation ball valve
3	CXSD pilot valve

### Connections

Port	Pressure Reducing
I	Upstream pressure
C	Valve control chamber
O	Downstream pressure
S-	Low pressure sensing

\* Used as command port for remote closing pressure in PS/EL and PS/RC

Pressure Differential Sustaining



Sample drawing. Consult Dorot for the assembly design to fit your needs.

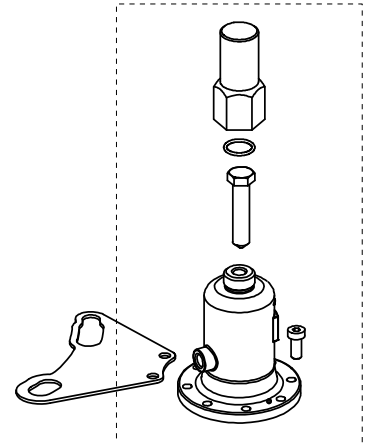
### Springs adjustment range

Spring number	bar	psi
53 (Std.)	3 - 19	44 - 275
108	0.3 - 3.5	4 - 50

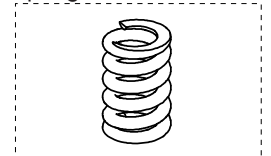
Adjustment: Turn the adjusting screw clockwise to increase the set point

### Spare parts

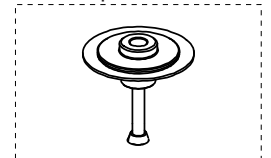
Bonnet kit



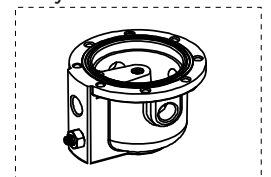
Spring



Internal parts kit



Body kit



### Catalogue numbers

Description	Catalogue number
Bonnet kit	66102CXRS000000
Spring 53	0022053000
Spring 108	0022010800
Internal parts kit	66120CXPS000000
Body kit	66101CXPS000000