

## High-sensitivity pressure-reducing and altitude control, 2-way metal pilot-valve

The CXAL is a high-sensitivity, 2-way, diaphragm actuated and spring-loaded pressure reducing pilot-valve, designed for control of hydraulic valves. The pilot valve modulates to keep a steady, pre-set downstream pressure or level in a downstream elevated-tank. As the downstream pressure or level falls below the set-value, the pilot valve opens a full passage between its "COM" and "OUT" ports thus allowing the valve to open by venting the control chamber pressure to the downstream side of the valve. As the downstream pressure rises above the set-value, the pilot valve throttles the internal passage, restricting the flow out of the (main) valve control chamber and causing the main valve to keep its position or to close (if needed).of hydraulic control-functions.



### Features

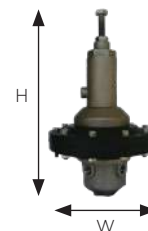
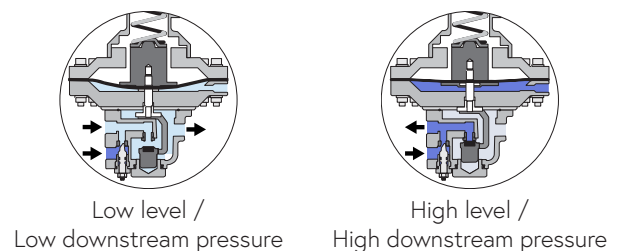
- A pressure-reducing 2-way pilot valve - highly accurate for low-pressure setting
- Normally-open, allows water passage when downstream pressure is lower than the adjusted spring setting
- Wide regulation range
- Superb accuracy and repeatability
- Easy to adjust
- Restrictor needle - integral in the valve design

### Typical applications

- Modulating Altitude control valves - AL
- High precision - Pressure reducing control valves - PR

### Technical data

General		
Pressure rating	25 bar / 360 psi	
Pressure adjustment range	1 - 65 mt / 1.5 - 95 psi	
Fluid temperature	60°C max. / 140°F max.	
Weight	3.5 Kg. / 7.7 lbs.	
Materials	Standard	Optional*
Body and bonnet	Brass	SST
Diaphragm plates	GRPA	
Elastomers	NBR	EPDM
Internal parts	SST+Brass	
Spring	SST	
Dimensions		
H (Height) max.	285 mm / 11.2"	
W (Width)	157 mm / 6.2"	
Port Connections		
I, O, C, A	NPT 1/4"	



\* other materials available upon demand

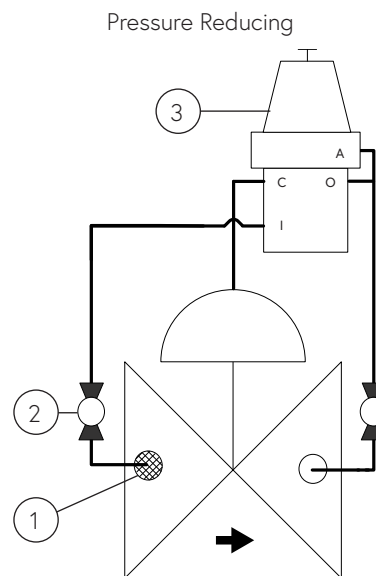
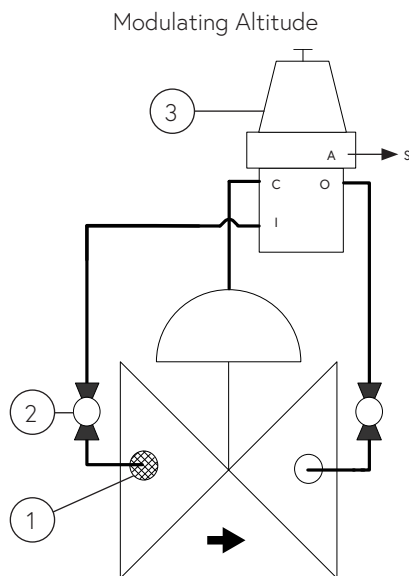
## Installation

### Main components

#	Description
1	Self flushing filter
2	Isolation ball valve
3	CXAL Pilot valve

### Connections

Port	Altitude	Pressure Reducing
I	Upstream	Upstream
C	Valve control chamber	Valve control chamber
O	Downstream	Downstream
A	Tank	Downstream



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

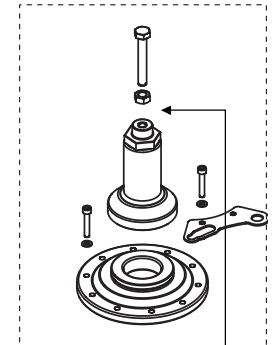
### Springs adjustment range

Spring number	Color	Meter	psi
47 (Std.)	Green	1 - 46	1.5 - 67
42	Yellow	1 - 18	1.5 - 26
50	Red	2.5 - 65	3.5 - 95

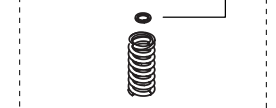
Adjustment: Turn the adjusting screw clockwise to increase the set point

### Spare parts

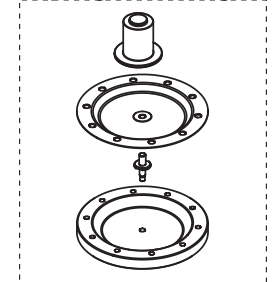
#### Bonnet kit



#### Spring



#### Diaphragm & housing kit



#### Internal parts kit



#### Body kit



### Catalogue numbers

Description	Catalogue number
Bonnet kit	661023131000000
Spring 42 - Yellow	0022042000
Spring 47 - Green	0022047000
Spring 50 - Red	0022050000
Diaphragm and housing kit	66068CXAL0
Internal parts kit	66120CXAL000000
Body kit	66101CXPR000000