

Multi purpose, 2-way or 3-way metal pilot-valve

The 68-710 can be used as a 2-way, diaphragm actuated, spring-loaded pressure-sustaining pilot-valve, designed for control of hydraulic valves and as a 3-way adjustable relay-valve. As a pressure sustaining, the pilot valve modulates to keep a steady, pre-set pressure upstream of its location. As the upstream pressure rises above the adjusted value, the pilot-valve opens the water passage between its 4 and 3 port thus allowing the water in the main valve's chamber to vent to the downstream, causing the main valve to open. As the downstream pressure falls below the set point, the pilot valve throttles the internal passage, restricting the flow out of the (main) valve control chamber, enabling the valve to keep its position or to close (if needed).

Features

- Wide regulation range (can be set up to 25 bar)
- Large water passages allow high flow capacity and fast reaction
- Accurate and easy to adjust
- Simple design and maximal dependability
- Can be used with any hydraulic control valve at any size
- Can be activated by hydraulic or pneumatic pressure

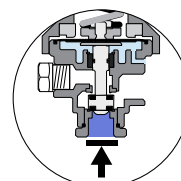
Typical applications

- Pressure sustaining valves - PS
- Pressure relief valves - PS[R]
- Quick pressure relief valves - QR
- Accelerator Relay-valve (Used to accelerates the opening and closing speed of large size valves)

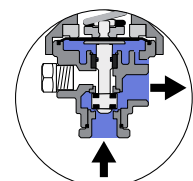
Technical data

General		
Pressure rating	25 bar / 360 psi	
Pressure adjustment range	0.5 - 33 bar / 7 - 480 psi	
Fluid temperature	80°C max. / 176°F max.	
Weight	1.9 kg / 4.2 lbs	
Materials	Standard	Optional*
Body and bonnet	Brass	SST
Elastomers	NBR	EPDM
Internal parts	SST+Brass	
Spring	SST	
Dimensions		
H (Height) max.	104 mm / 4.09"	
W (Width)	85 mm / 3.35"	
Port Connections		
1	NPT ¼"	
2, 3, 4	NPT ½"	

* other materials available upon demand



Normal pressure
QR 4 or smaller



High pressure
QR



Installation

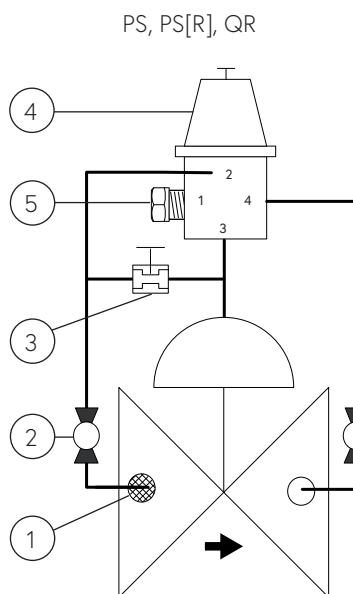
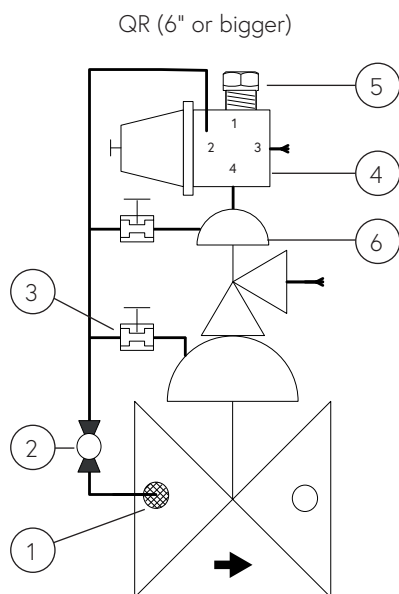
Main components

#	Description	#	Description
1	Self flushing filter	4	68-710 Pilot valve
2	Isolation ball valve	5	Plug
3	Needle valve	6	2" Relay valve

Connections

Port	Pressure Sustaining	Quick relief (up to 4")	Quick relief (6" or larger)	Adjustable Relay
1	Upstream	Upstream	Upstream	P. command
2	Plug	Plug	Plug	Plug
3	Control chamber	Downstream / vent	Relay cntrl. chamber	Control chamber
4	Vent	Control chamber	Vent	Vent

* Note: In all applications, it is optional to replace the connections to ports 4 & 3



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

Springs adjustment range

Spring number	Color	bar	psi
47 (Std.)	Green	0.7 - 25	10 - 300
42	Yellow	0.5 - 10	7 - 150
50	Red	1 - 33	15 - 480

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

Catalogue numbers

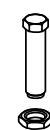
Description	Catalogue number
Bonnet kit	661026871000000
Spring 47 - Green	0022047000
Spring 42 - Yellow	0022042000
Spring 50 - Red	0022050000
Internal parts kit	661206871000000
Body kit	661016871000000

Spare parts

Adjustment bolt cap*



Bonnet kit



Spring



Internal parts kit



Body kit

