

Hygienic Right Angle Valve 6022

with Pressure Controller

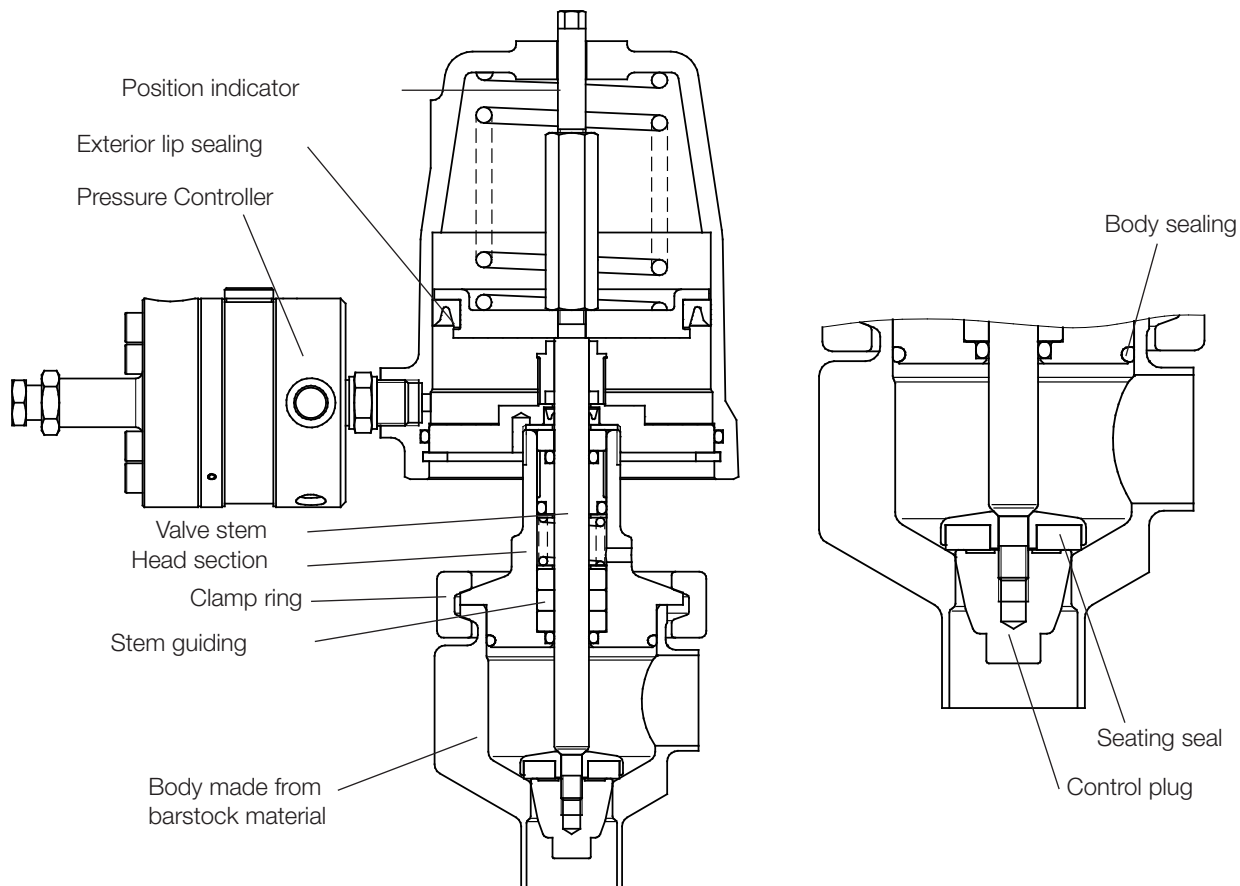
1/2" up to 1 1/2" for applications in food processing



Pneumatic right angle control valve for continuous and discontinuous pressure control of gases and steam for applications in food processing and chemical.

The Control Valve 6022 consists of the Hygiene Right Angle Valve 6010 and the Pressure Controller.

- Compact design
- Body made from non-porous barstock material
- Actuator casing made from stainless steel (option)
- Versatile actuator options
- For temperatures from -4°F up to +284°F
- Control pressure ranges 1 up to 87psi



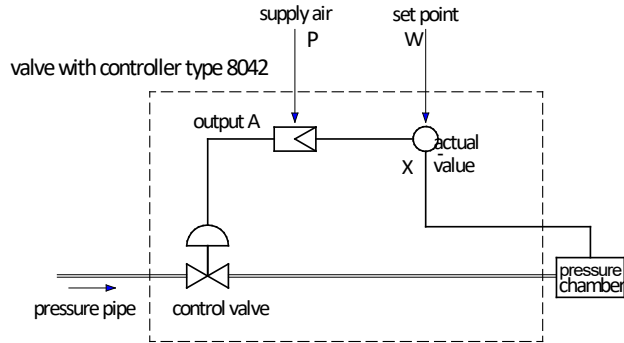
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Function

The steam or gas pressure from the installation (pressure chamber or pipe) is applied to the controller's diaphragm and compared to the set point signal. As a result of this comparison, supply air is either delivered to the actuator or exhausted. Consequently valve position and flow change, as well as the controlled pressure. The controller can be used for non-continuous processes with varying set points as well as for continuous pressure control (e.g. pressure reduction of steam). Examples can be found at the end of this brochure.

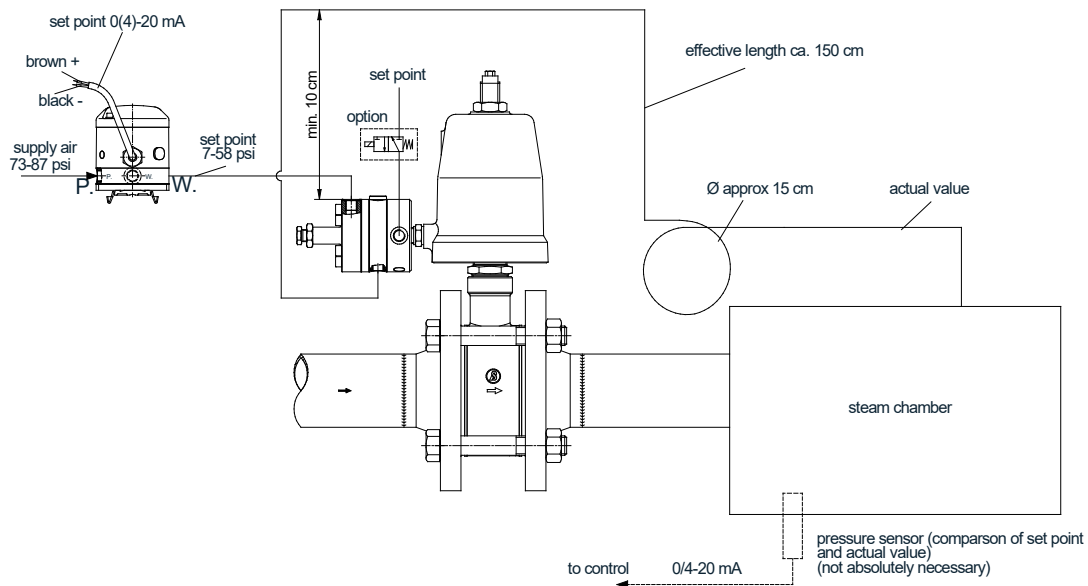
Remark: This proportional controller has a high internal gain and might not replace a conventional control loop with considerable dead times. Practical experience, however, indicates that many different pressure control loops can be handled with this system. To reduce the application risk prior to installation we recommend factory consultation, which is in any case worthwhile due to the potential cost reduction (no pressure gauge and process controller required).



Application Examples

Pressure control in a closed chamber:

The pressure in a steam vessel is to be controlled in accordance with a varying set point signal, which is a current signal determined by the process controller (e.g. a CPS). This signal first is converted to a pressure signal by an i/p-converter and then fed to the pressure controller type 8042. The actual steam pressure is picked up via a pilot line which at the same time takes care of cooling down the medium before it gets into contact with the controller's diaphragm system.



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with Pressure Controller

Technical Information

Body material	Stainless steel 316L	
Nominal sizes	1/2", 1", 1 1/2" (3/4" in inch)	
Connections	Welding ends acc. Inch Tri-Clamp acc.inch Valve-head section: clamp - connection	
Nominal pressure	235 psi	
Pilot pressure	60 - 90 psi	
Seating seal	soft seat	
Fluid temperature	-4°F up to 284°F	
Ambient temperature	-4°F up to +176°F	
Surface finish	outside	machined, Ra < 39.4 µin
	inside	machined, Ra < 31.5 µin polished, Ra < 23.6 µin

Pilot- and Operating pressure normally closed, closing against the flow

Nominal size	Cv-Value	max. Operating pressure (differential pressure)		Pilot pressure stainless steel psi	Piston inch
		control psi	on-off psi		
1/2"	0,46 up to 1,16	235	235	45 - 90	3"
	1,86 up to 4,64	130	205	60 - 90	3"
3/4"	0,46 up to 1,16	235	235	45 - 90	3"
	1,86 up to 4,64	130	205	60 - 90	3"
1"	0,46 up to 1,16	235	235	45 - 90	3"
	1,86 up to 4,64	130	205	60 - 90	3"
	7,31 up to 11,6	45	65	60 - 90	3"
1 1/2"	17,4 up to 29	90	130	60 - 90	5"

Cv- Values

Size	1/2"	3/4"	1"	1 1/2"	1/2"	3/4"	1"	1 1/2"
characteristic	linear				equal percentage			
full	4.6	4.6	11.6	29	4.6	4.6	11.6	23.2
reduced (63 %)	2.9	2.9	7.3	18.6	2.9	2.9	7.3	17.4
reduced (40 %)	1.9	1.9	4.6	-	1.9	1.9	4.6	-
reduced (25 %)	1.16	1.16	2.9	-	-	-	2.9	-
reduced (16 %)	0.73	0.73	1.9	4.6	-	-	1.9	4.6
reduced (10 %)	0.5	0.5	1.16	2.9	-	-	-	2.9
reduced (6,3 %)	-	-	0.73	1.9	-	-	-	1.9
reduced (4 %)	-	-	0.5	-	-	-	-	-
stroke (inch)	0.63							

3/4" only in inch available

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Materials

Valve Body	Stainless steel 316L
Actuator	Stainless steel 316L
Actuator springs	Stainless steel 301 (piston 3") spring steel wire C, resin coated (piston 5")
Valve stem	Stainless steel 316Ti, roller burnished
Cone	Stainless steel 316L
Cap nut	Stainless steel 316Ti
Disc	Stainless steel 316 Ti
Clamp-connection	Stainless steel 304
Body sealing	EPDM (O-ring)
Seating seal	soft seat: PTFE flat sealing
Stem sealing	PTFE compound, mounted stainless steel spring, spring space effused with silicone, packing: PTFE, spring 301
Position indicator	Polyamid
Pressure Controller	brass, chrome coated

Ordering Number System

6	0	2	2	/				V						S

1 - 6 : Please quote all 6 sections.
7 - 13: Quote only if required.

Model				Nominal Size				Symbol			
-				-				-			
-				-				-			
-				-				-			
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-				-				-			

1. Design	2. Connections	3. Body material	4. Trim	5. Pilot function	6. Actuator
0	hygienic right angle valve	2 stainless steel 1.4404 (316L) Ra < 31.5 µin	0 soft seat (PTFE)	A manually operated 7 - 36 psi (spring to close)	1 piston 2" with stainless steel bonnet (NPT)
	E welding ends acc. inch	3 stainless steel burnished 1.4404 (316L) Ra < 23.6 µin		B remote control 7 - 87 psi (spring to close)	2 piston 3" with stainless steel bonnet (NPT)
	Z Tri-Clamp acc. Inch			C remote control 1 - 15 psi (spring to close)	8 piston 5" with stainless steel bonnet (NPT)
					9 piston 3" with plastic bonnet (NPT)

7. Springs	8. Characteristic	9. Packing	10. Cv-Value	11. Accessoires	12. Further special versions
- standard	- linear equal percentage	- standard	- full (100%)	- without	S Quote for further special versions
	1		A red. to 63%		
			1 red. to 40%		
			2 red. to 25%		
			3 red. to 16%		

Ordering Example:

6022/015V0E20B8

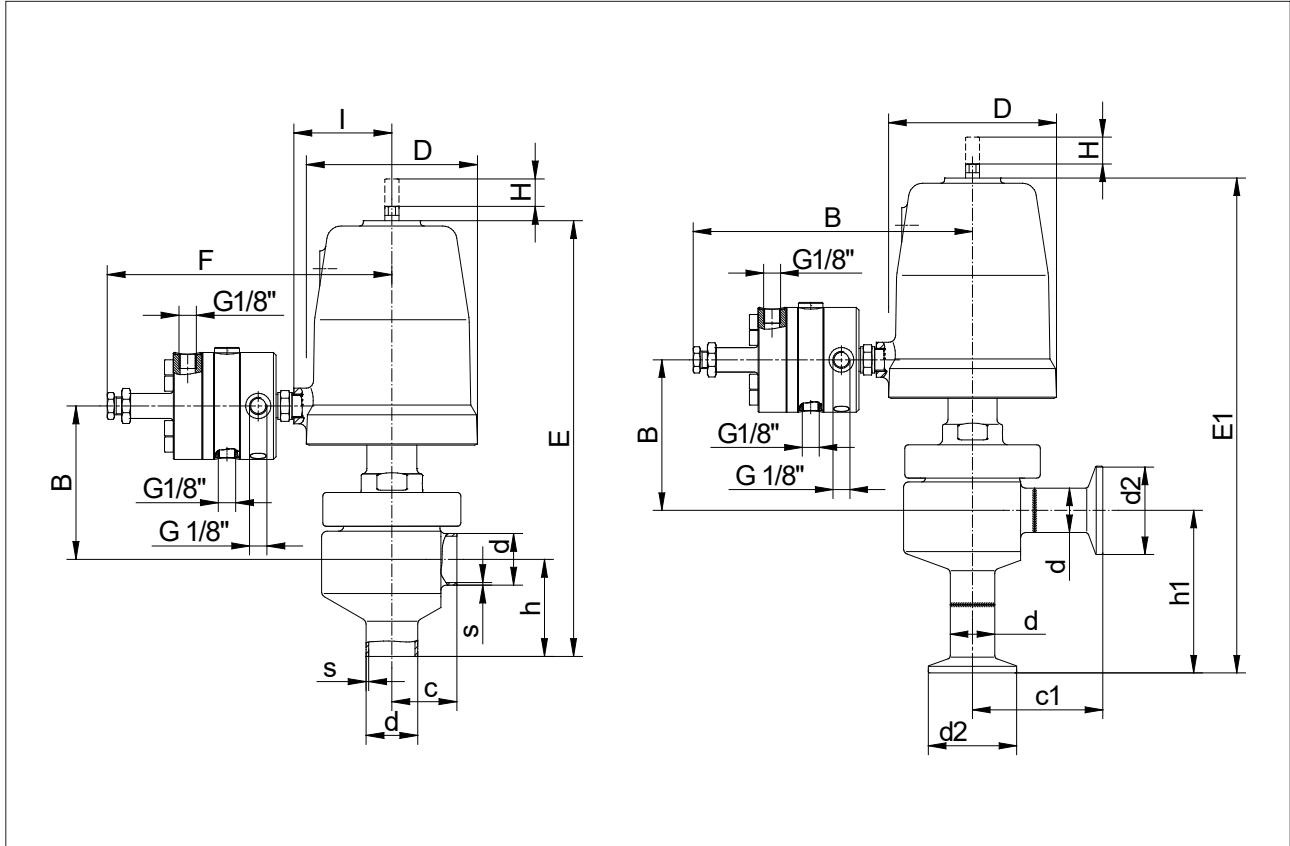
Hygienic Right Angle Valve Type 6022, 1/2", welding ends acc. inch, stainless steel body 316 L, soft seat (PTFE), Pressure Controller 7 - 87 psi spring to close, piston 5", flow characteristic linear, Cv-value (100%)

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Dimensions and Weights



Size	Piston Ø	D	G	Inch				B	F	I	H	E	Cv- value	Weight (~lbs)
				d	s	h	c							
1/2"	3"	3.78	1/4"	0.5	0.06	1.65	1.08	3.25	6.3	2.17	0.63	8.98	6.4	7.7
3/4"	3"	3.78	1/4"	0.75	0.06	1.65	1.08	3.25	6.3	2.17	0.63	8.98	6.4	7.7
1"	3"	3.78	1/4"	1	0.06	2.13	1.4	3.41	6.3	2.17	0.63	9.65	21.5	8.8
1 1/2"	5"	5.75	1/4"	1.5	0.06	2.46	1.89	3.72	7.28	3.15	0.63	11.14	44.1	17.6

Size	Piston Ø	D	G	Tri-clamp acc. Inch				E1	H	I
				d	d2	h1	c1			
1/2"	3"	3.78	1/4"	0.5	0.98	2.78	2.2	10.08	0.63	2.17
3/4"	3"	3.78	1/4"	0.75	0.98	2.78	2.2	10.08	0.63	2.17
1"	3"	3.78	1/4"	1	1.99	3.66	2.93	11.18	0.63	2.17
1 1/2"	5"	5.75	1/4"	1.5	1.99	4	3.43	12.68	0.63	3.15

Dimensions in inch

Text and pictures are not binding. We reserve the right to alter the equipment.