

Art5065 2-Way Modulating Pneumatic Control Valve



Features

The control valve plays an important role in the loop adjustments, in the automatic control of industrial processes. Performs the function of varying the flow of control fluid, which modifies the value of the measured variable, behaving like a continuously variable area orifice. Within the control loop is as important as the primary element, the transmitter and controller.

The shutter control performs the function of fluid flow, acting in the direction of its axis.

Shutter equal percentage:

In a shutter with equal percentage characteristic, every increment of stroke in the shutter produce a change in the flow that is proportional to the one that flowed before the change.

Gaskets are used isopercentual valves for:

- *Fast processes.*
- *When the system dynamics are not well understood.*
- *When you need high range flow control (rangeability) **

** The "Rangeability" or field of flow control that valve is capable to regulate maintaining the inherent characteristic curve.*

Globe Valve:

Valve whose construction is distinguished by controlling the flow through a linear movement.

Valve with single seat and 2 ways.

Single seat valves require a larger actuator for closing the shutter against the differential pressure of the process.

The tight closure is achieved with stainless steel shutter and PPL seat.

Normally Closed Control Valves (Spring Return)

Drive: pneumatic (air to open)

Features:

Body material: ASTM A216 WCB

Connection: Flanged ends DIN 2543 (PN16)

Limit of pressure: Water 16 bar at 120°C

Steam 13 bar at 200°C

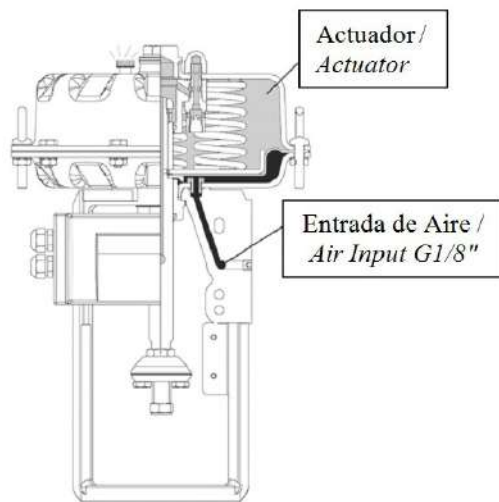
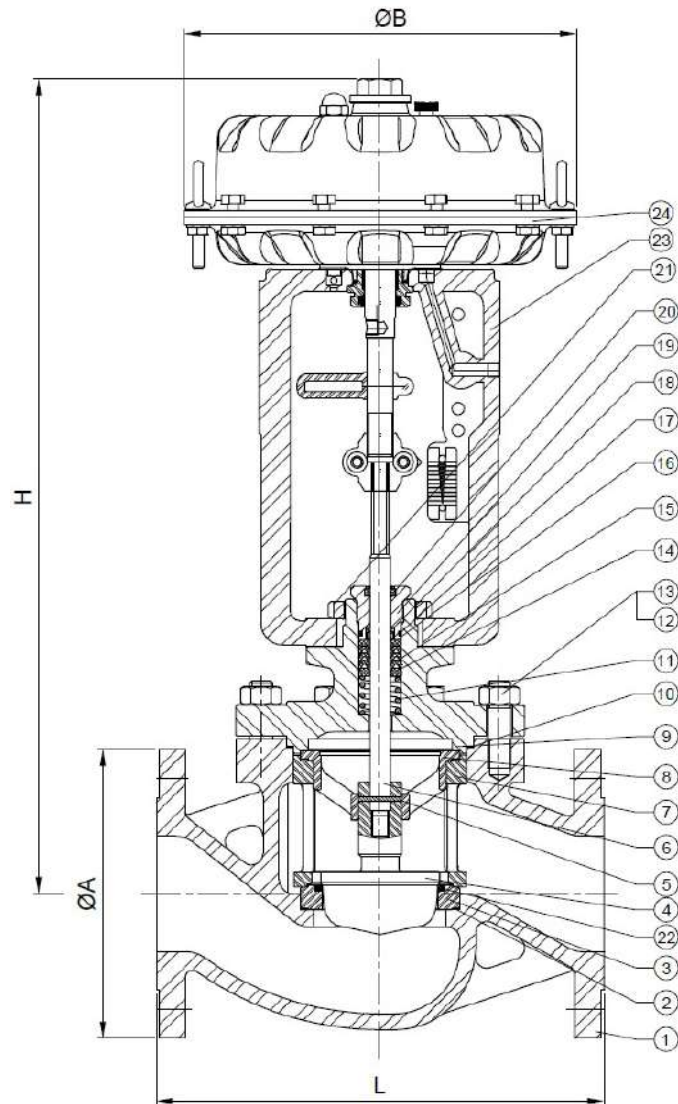
Working Temperature: -20°C / + 230°C

Features of Actuator:

Diaphragm type, spring return, normal close.

Maximum input pressure: 6 bar.

Sealing: DIN EN 1349 Class VI (zero leakage)



Parts List

N°	Name	Material	Surface Treatment	Kit Ref
1	Body	ASTM A216 WCB	Epoxy Painted	
2*	Seat Gasket	Graphite + Stainless Steel		K5065
3*	Seat Support	Stainless Steel 304		K5065
4*	Plug	Stainless Steel 304		K5065
5	Pin	Stainless Steel 304		
6	Stem	Stainless Steel 304		
7	Cage	Stainless Steel 304		
8	Guide Sleeve	Stainless Steel 304		
9	Bonnet	ASTM A216 WCB	Epoxy Painted	
10*	Body Gasket	Graphite + Stainless Steel		A5065 E5065 K5065
11	Spring	Stainless Steel 304		
12	Stud Bolt	Stainless Steel 304		
13	Nut	Stainless Steel 304		
14*	Packing	Graphite		E5065
15*	Packing	Graphite		E5065
16*	Packing	Graphite		E5065
17*	O-Ring	FKM		E5065
18*	Sealing Ring	FKM		E5065
19	Packing Nut	2Cr13		
20*	Sealing Ring	FKM		E5065
21	Nut	Carbon Steel		
22*	Seat	PPL		A5065
23	Yoke	Carbon Steel	Epoxy Painted	
24	Actuator	Carbon Steel	Epoxy Painted	

*Spare parts available.

Genebre may be able to provide diaphragm or springs as spare parts for the actuator. Please check with your distributor for availability.

General Dimensions

Ref	Size	PN	ØA	ØB	H	L	Weight (Kg)
5065 04	15	16	95	228	475	150	16,000
5065 05	20	16	105	228	480	150	18,500
5065 06	25	16	115	228	480	160	19,800
5065 07	32	16	140	228	480	180	21,500
5065 08	40	16	150	272	552	200	30,000
5065 09	50	16	165	272	552	230	33,500
5065 10	65	16	185	272	592	290	49,500
5065 11	80	16	200	272	592	310	52,000
5065 12	100	16	220	272	592	350	65,000

Ref	Size (DN)	Technical Features Minimum air supply 3.5 - 4 bar				
		Stroke (mm)	Kv (m3/h)	Max Pressure (bar)	Diaphragm Area (cm2)	Spring Qty
5065 04	15	20	3,2	16	210	6
5065 05	20	20	6,3	16	210	6
5065 06	25	20	10,0	16	210	6
5065 07	32	20	16,0	16	210	6
5065 08	40	20	25,0	16	320	6
5065 09	50	20	40,0	12	320	6
5065 10	65	30	63,0	9	320	6
5065 11	80	30	100,0	6	320	6
5065 12	100	30	160,0	3.5	320	6

Air Consumption (Liters)

Actuator	Air Pressure		
	4 Bar	5 Bar	6 Bar
210 cm ²	5	5,84	6,81
320 cm ²	10	11,68	13,62

Opening Curve

The relative flow value in a variety of inherent flow characteristic under relative stroke.

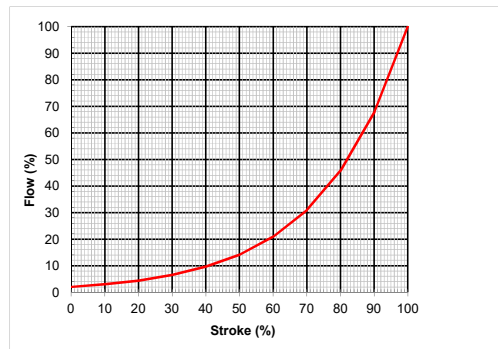
Stroke (%)	0	10	20	30	40	50	60	70	80	90	100
Flow (%)	2	3	4.37	6.5	9.6	14.1	20.9	30.9	45.7	67.6	100

Example

Size: DN 50

Kv for DN 50: 40 m³/h

Opening valve at 50% = Flow (14.1%) of 40 m³/h = 5,64 m³/h



Optional Accesories:

Pneumatic Positioner 3-15 psi
Genebre: 5952 02

Electropneumatic Positioner 4-20 mA
Genebre: 5952 00

Electropneumatic Positioner 4-20 mA with
position transmitter
Genebre: 5952 04

Smart Positioner 4-20 mA
Genebre: 5954 00

