

**“ADCATROL” PNEUMATIC CONTROL VALVES**  
**PV16G – ON-OFF**  
**(V16G globe valves series with linear actuators PA series)**

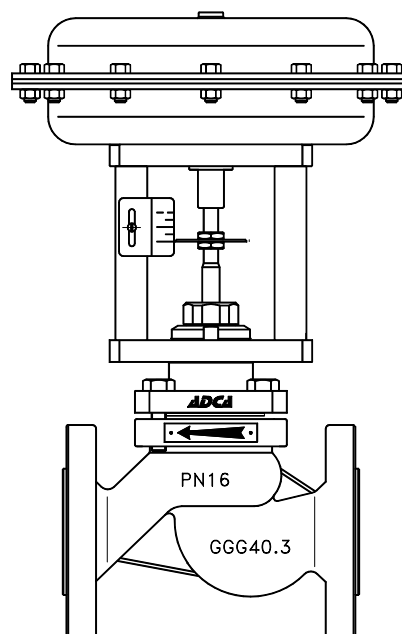
**DESCRIPTION**

The PV16G ON-Off valves are single seated, two-way body constructed with in-line straight connections. The PA pneumatic actuator is rubber diaphragm and multi-springs. Its action can be DA -direct action (air to close) or RA-reverse action (air to open).

Their wide application ranges allows to use this valve with the most common process fluids such as water, superheated water, steam, air, gas and other non corrosive fluids.

**MAIN FEATURES**

Single seated, two ways, direct or reverse action valve.  
 Valve top flange permanently attached to the body, removal is unnecessary for replacing the actuator.  
 Soft sealing as standard.

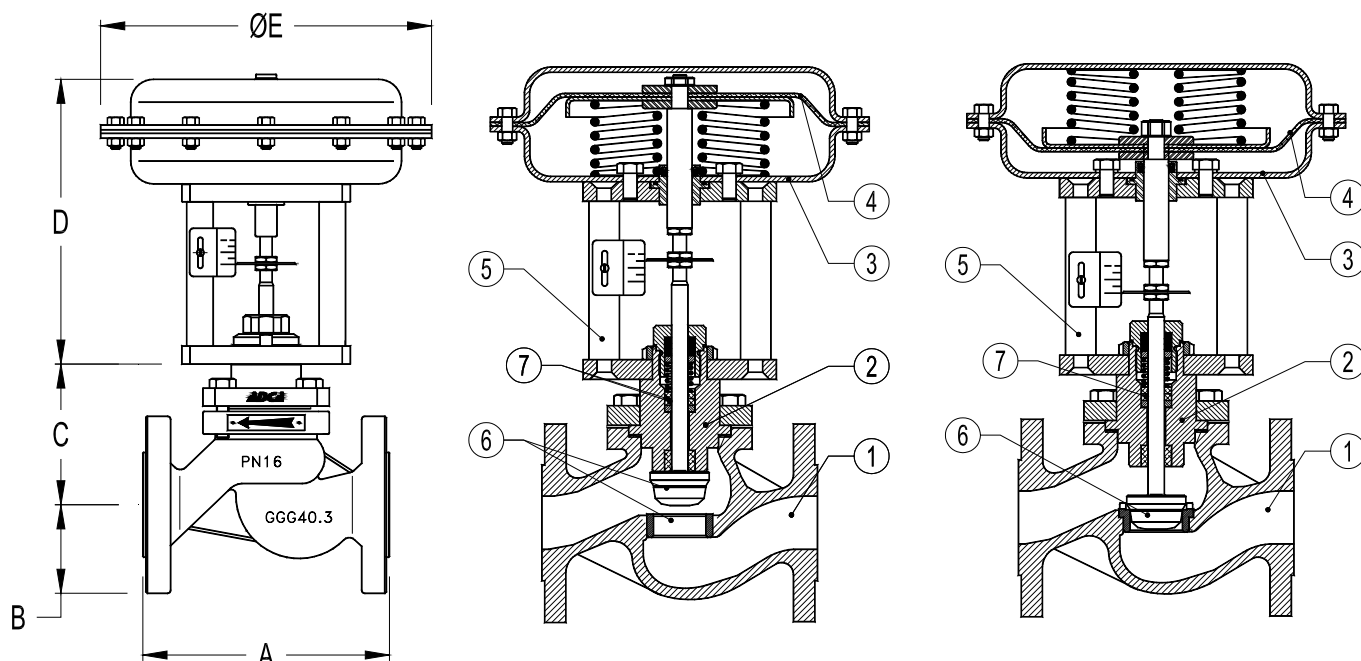


- OPTIONS:** Air filter regulator  
 Top-work manual handwheel  
 Stainless steel construction.
- USE:** Saturated and superheated steam.  
 Hot and superheated water.  
 Air, gases and other noncorrosive fluids.
- AVAILABLE MODELS:** PV16G-OF
- VALVE SIZES:** DN15 to DN200
- CONNECTIONS:** Flanged EN1092-2 PN16
- ACTUATORS:** PA-205; PA-280; PA-340; PA-435
- ACTUATOR CONN:** 1/4" NPT-F

- VALVE LIMITING CONDITIONS:** Body design conditions: PN16  
 16 bar at 120°C  
 14,7 bar at 200°C  
 Min.working temperature: -10°C
- MAX. AIR SUPPLY PRESSURE:** 3,5 bar
- AMBIENT TEMPERATURE:** -20°C ...+70°C
- BONNET :** From -5°C to +200°C (standard)  
 Finned for temperature >200°C (from DN32 to DN100)
- STEM SEALING:** PTFE/GR V-Rings - up to 220°C (Standard bonnet)
- PLUG TYPES:** On-Off (PT)
- PORT:** Full port

**HOW TO SELECT:** Never size the valve according to the pipe diameter in which it has to be fitted but according to the required actual flow of steam or water. Refer to valve calculation data sheet or consult the factory.

CE MARKING (PED - European Directive 97/23/EC)	
PN 16	Category
DN15 to DN50	SEP - art. 3, paragraph3
DN65 to DN200	1 (CE Marked)



DIMENSIONS - VALVE BODY				
DN	A (mm)	B (mm)	C (mm) BONNET	
			STANDARD	EXTENDED
15	130	48	80	150
20	150	53	80	150
25	160	58	85	165
32	180	70	90	170
40	200	75	105	185
50	230	83	105	195
65	290	93	165	265
80	310	100	175	270
100	350	110	190	300
125	400	125	240	310
150	480	142	290	340
200	600	170	315	360

MATERIALS		
POS.	DESIGNATION	MATERIAL
1	Valve Body	GJS-400-18-LT / 0.7033
2	Bonnet	CF8 / 1.4308
3	Actuator (Steel)	S235JRG2 / 1.0038
	Actuator (Stainless steel)	AISI304 / 1.4301
4	Diaphragm	NBR 70
5	Yoke (Steel)	C45E / 1.1191
	Yoke (Stainless steel)	AISI304 / 1.4301
6	Valve Seal	PTFE/GR
7	Standard packing	PTFE/GR

DIMENSIONS - ACTUATOR			
Type	ø E (mm)	D (mm)	
		DN15-100 DA/RA	DN125-200 DA
PA-205	210	235	—
PA-280	275	240	—
PA-340	335	265	—
PA-435	430	295	—

PV16 DA - Direct action from DN15 to DN200, PV16 RA - Reverse action from DN15 to DN100

FLOW RATE COEFFICIENTS												
	SIZES											
	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200
<b>Kvs</b>	3,8	5,1	9,4	15,4	22,2	40,1	63,4	89,7	136,7	230,6	316,1	555,3

Kvs in m<sup>3</sup>/h, see data sheet IS PV10.00 E; For conversion Kvs = Cv(US) x 0,855

ACTUATOR STROKE IN mm												
	SIZES											
	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200
<b>Stroke</b>	5	5	7	8	10	13	17	20	25	32	38	50



**STEAM EQUIPMENT**

**MAX. PERMISSIBLE PRESS.DROP IN bar - Normally closed valve (fluid to open) - Reverse action actuator (air signal to open)**

ACTUATOR (Pressure)	MIN. AIR PRESSURE	SIZES											
		DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200
PA-205 (0 - 2,5 bar)	3,5 bar	12	12	9	6,5	4	—	—	—	—	—	—	—
PA-280A (0 - 2,5 bar)	3,5 bar	25	25	25	16	12	6,5	—	—	—	—	—	—
PA-280B (0 - 2,5 bar)	3,5 bar	—	—	—	—	—	—	5,7	4	2	—	—	—
PA-340A (0 - 2,5 bar)	3,5 bar	—	—	—	25	20	18	—	—	—	—	—	—
PA-340B (0 - 2,5 bar)	3,5 bar	—	—	—	—	—	—	6,2	5	3	—	—	—

For valve sizes DN125 and above please consult.  
Special spring drops available on request.  
The pressure drop values must be used within the body rating limits

**MAX. PERMISSIBLE PRESS.DROP IN bar - Normally closed valve (fluid to close) - Reverse action actuator (air signal to open)**

ACTUATOR (Pressure)	MIN. AIR PRESSURE	SIZES											
		DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200
PA-205 (0 - 1 bar)	3,5 bar	25	25	25	25	25	15	—	—	—	—	—	—
PA-280B (0 - 1 bar)	3,5 bar	—	—	—	—	—	—	21	14	7	—	—	—
PA-340B (0 - 1 bar)	3,5 bar	—	—	—	—	—	—	25	19	12	—	—	—

**Important:** not recommended for water and other liquids if fluid direction is over the plug (fluid to close).  
The pressure drop values are referred to closed valves.

**MAX. PERMISSIBLE PRESS.DROP IN bar - Normally open valve (fluid to open) - Direct action actuator (air signal to close)**

ACTUATOR (Pressure)	MIN. AIR PRESSURE	SIZES											
		DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200
PA-205 (0 - 1 bar)	3,5 bar	25	25	25	25	17	14,5	—	—	—	—	—	—
PA-280A (0 - 1 bar)	3,5 bar	—	—	—	—	25	24	—	—	—	—	—	—
PA-280B (0 - 1 bar)	3,5 bar	—	—	—	—	—	—	13	7,5	4	—	—	—
PA-340B (0 - 1 bar)	3,5 bar	—	—	—	—	—	—	25	16	10	—	—	—

For valve sizes DN125 and above please consult.  
The actuator pressure drops given with closed valve, are obtained with the following air pressures supply:  
Actuator signal 0,2 to 1 bar :air supply 3,5 bar  
Special spring drops available on request.  
The pressure drop values must be used within the body rating limits.  
For electric actuator selection please consult catalogue IS EL.20.00 E or our technical department.