

PNEUMATIC CONTROL VALVES

PV25I-Stainless steel (Threaded DN 1/2" - 1")

(V25I globe valves series with linear actuators PA series)

DESCRIPTION

The PV25 control valves are single seated, two-way body constructed with in-line straight connections. The PA pneumatic actuator is rubber diaphragm and multi-springs. It's action can be DA - direct action (air to close) or RA-reverse action (air to open). The PV25 valves have been designed to assure an accurate control in any process condition. Their wide application ranges allows the use of 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 way , direct or reverse action valve.
Valve top flange permanently attached to the body, removal is unnecessary for replacing the actuator.
Metal to metal sealing as standard.

- OPTIONS:**
- Position transmitter 4-20 mA
 - Pneumatic pilot positioner
 - Electropneumatic pilot positioner
 - Air filter regulator
 - Top-work manual handwheel
 - Stainless steel actuator.
 - Soft sealing and stellite seat and plug.
- USE:**
- Saturated and superheated steam.
 - Hot and superheated water.
 - Air, gases and other noncorrosive fluids

- AVAILABLE MODELS:**
- PV25S - Carbon steel
 - PV25I - Stainless steel
- VALVE SIZES:** DN 1/2" to 1"

CONNECTIONS: Threaded ISO or ANSI

ACTUATORS: PA-205; PA-280; PA-340.

ACTUATOR CONN: 1/4" NPT-F

CONTROL SIGNAL: 0,2 - 1 bar ; 0,4 - 1,2 bar ; 0,4 - 2 bar.

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 25	Category
DN 1/2" to 1"	SEP - art. 3, paragraph3



VALVE LIMITING CONDITIONS			
V25S		V25I	
PRESS.	Rel. Temp.	PRESS.	Rel. Temp.
25 bar	-10/50 °C	25 bar	10/50 °C
20,8 bar	200 °C	21 bar	200 °C
19 bar	250 °C	19,8 bar	250 °C
17,2	300 °C	18,5 bar	300 °C

Maximum temperature limited to the valve packing selected.

Valves with soft seating: max.temperature 200°C

MAX. AIR SUPPLY

PRESSURE: 3,5 bar

AMBIENT

TEMPERATURE: -20°C ...+70°C

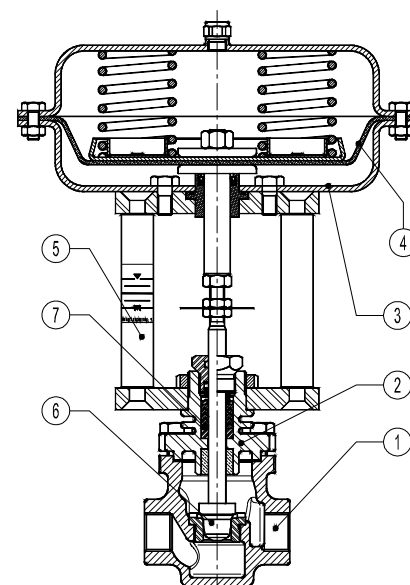
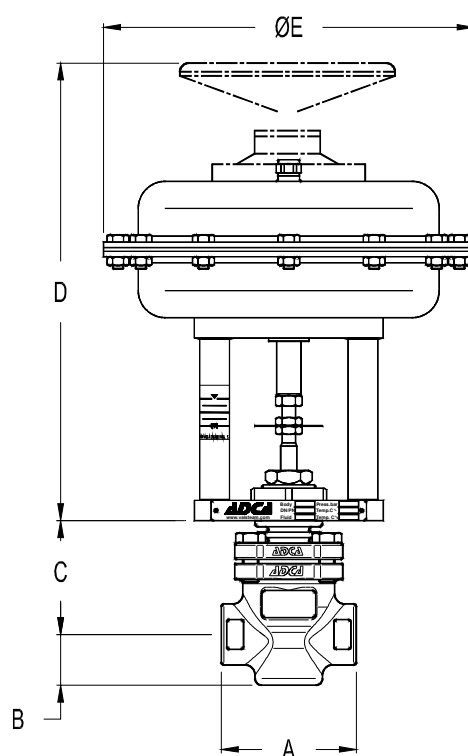
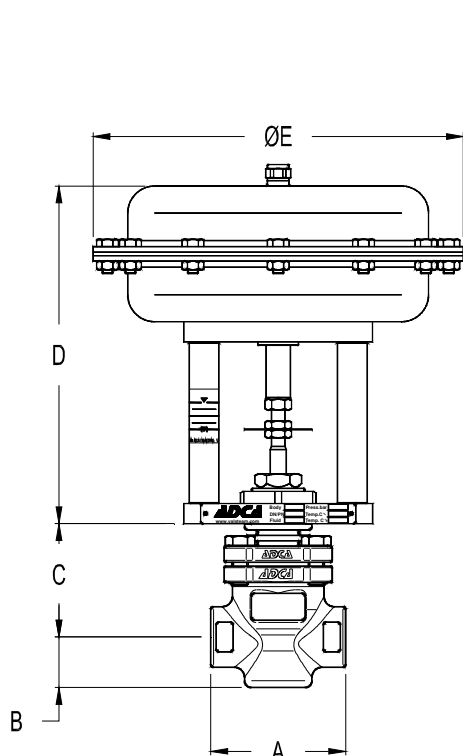
BONNET : From -5°C to +220°C (standard)
Finned for temperature >220°C

STEM SEALING: PTFE/GR V-Rings - up to 220°C (Standard bonnet)
Graphite - up to 400°C (Finned bonnet)

PLUG CHARACTERISTICS: EQP - Equal percentage
PL - Linear
PT - On-Off

PLUG DESIGN : Contoured
Microflow
Perforated
(Low noise, anti-cavitation)

PORT : Full port or reduced on request


DIMENSIONS - VALVE BODY

DN	A (mm)	B (mm)	C (mm) BONNET			
			STANDARD	FINNED	EXTENDED	BELLOWS
1/2"	100	37,5	84	145	145	205
3/4"	100	37,5	84	145	145	205
1"	100	37,5	84	165	165	225

MATERIALS

POS.	DESIGNATION	MATERIAL
1	Valve Body	CF8M / 1.4408
2	Bonnet	CF8M / 1.4408
3	Actuator (Steel)	S235JRG2 / 1.0038
	Actuator (Stainless steel)	AISI304 / 1.4301
4	* Diaphragm	NBR 70
5	Yoke (Seel)	C45E / 1.1191
	Yoke (Stainless steel)	AISI304 / 1.4301
6	Valve Seal	PTFE/GR
7	* Standard packing	PTFE/GR

* Available spare parts

FLOW RATE COEFFICIENTS

	SIZES		
	DN15	DN20	DN25
Kvs	3,8	5,1	9,4

Kvs in m³/h , see data sheet IS PV10.00 E ;
For conversion Kvs = Cv(US) x 0,855

DIMENSIONS - ACTUATOR

Type	ø E (mm)	D (mm) DN 1/2" - 1" DA/RA	WEIGHT Kgs
PA-205	210	235	5,7
PA-280	275	240	8,8
PA-340	335	265	14,3
PA-435	430	295	24,5

VALVE STROKE IN mm

	SIZES		
	DN15	DN20	DN25
Stroke	20	20	20

Perforated plug and on-off valves may have different strokes, please see literature or consult factory.

MAX. PERM.PRESS.DROP IN bar N.C. (fluid to open) - Reverse action actuator (air signal to open)							
ACTUATOR	CONTROL SIGNAL	SIZES					
		DN1/2"	DN3/4"	DN1"	DN1 1/4"	DN1 1/2"	DN2"
PA-205	0,2 ÷ 1 bar	6	6	5	—	—	—
	0,4 ÷ 1,2 bar	10	10	7	—	—	—
	0,4 ÷ 2 bar	12	12	9	—	—	—
PA-280	0,2 ÷ 1 bar	28	26	16	—	—	—
	0,4 ÷ 1,2 bar	40	38	20	—	—	—
	0,4 ÷ 2 bar	50	45	25	—	—	—
PA-340A	0,2 ÷ 1 bar	60	60	50	—	—	—
	0,4 ÷ 1,2 bar	80	80	60	—	—	—
	0,4 ÷ 2 bar	100	100	80	—	—	—

The pressure drop values are referred to closed valves. They have been verified by a control signal coming from an electro-pneumatic converter with an enduring minimum signal of 0,2 bar.

The actuator press. drops given with closed valve for the actuator signal 0,4 - 2 bar are also valid for ON-OFF service with air supply at 2,5 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.

MAX. PERM.PRESS.DROP IN bar N.O. (fluid to open) -Direct action actuator (air signal to close)							
ACTUATOR	CONTROL SIGNAL	SIZES					
		DN1/2"	DN3/4"	DN1"	DN1 1/4"	DN1 1/2"	DN2"
PA-205	0,2 ÷ 1 bar	16	16	12	—	—	—
	0,4 ÷ 2 bar	25	24	16	—	—	—
PA-280	0,2 ÷ 1 bar	—	—	19	—	—	—
	0,4 ÷ 2 bar	—	—	25	—	—	—
PA-340A	0,2 ÷ 1 bar	—	—	—	—	—	—
	0,4 ÷ 2 bar	—	—	—	—	—	—

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 1,2 bar

Actuator signal 0,4 to 2 bar : air supply 2,5 bar

The actuator press. drops given with closed valve for the actuator signal 0,4- 2 bar are also valid for ON-OFF service with air supply at 2,5 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.



ACTUATOR CODES (pneumatic)		P.				
Group Designation						
Multi-spring , pneumatic linear actuator		P.				
Actuator Size						
205			1			
280			3			
340 A - From DN15 to DN25			5			
Actuator						
Direct Action				D		
Reverse Action				R		
Actuator Construction						
Steel construction (painted) - standard					(2)	
Stainless steel construction					I	
Control Signal						
0,2 - 1 bar (3/15 psi)						15
0,4 - 1,2 bar (6/18 psi)						18
0,4 - 2 bar (6/30 psi)						30

Always order spares by using that serial number. If the valve has non-standard extras the serial number has also an E (extras).