

**PNEUMATIC CONTROL VALVES
PV25- (Threaded DN 1/2"- 1")
(V25 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.



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)

Stainless steel bellows

PLUG CHARACT.: EQP - Equal percentage

PL - Linear

PT - On-Off

PLUG DESIGN : Contoured

Microflow

Perforated

(Low noise, anti-cavitation)

PORT : Full port or reduced on request

CE MARKING (PED - European Directive 97/23/EC)	
PN 25	Category
DN 1/2" to 1"	SEP - art. 3, paragraph3

VALVE BODY LIMITING CONDITIONS

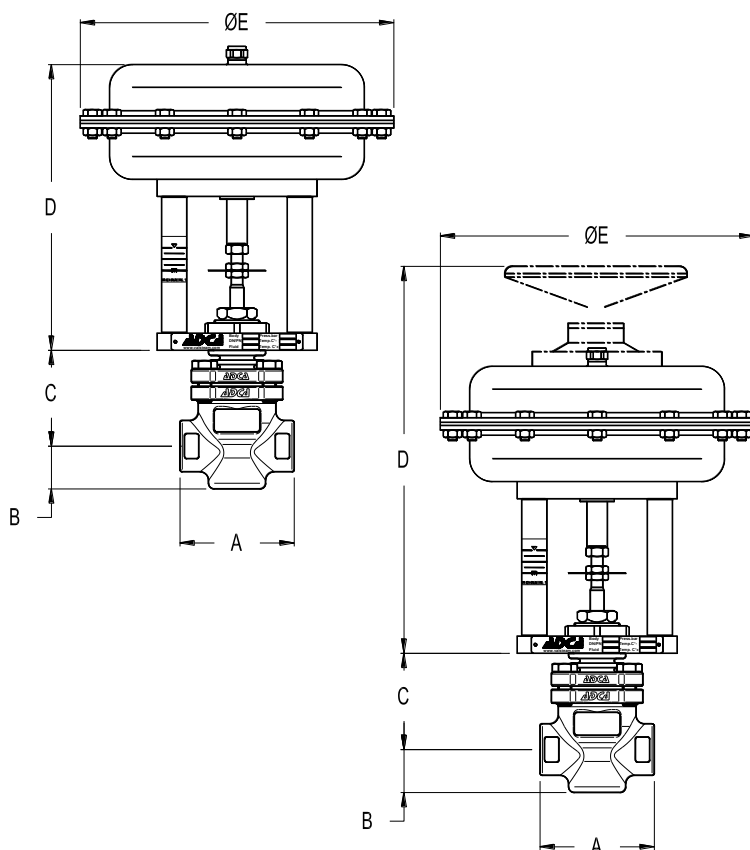
V25S - PN40 *		V25I - PN40 *	
ALLOWABLE PRESSURES	RELATED TEMP.	ALLOWABLE PRESSURES	RELATED TEMP.
40 bar	-10 /50° C	40 bar	-10 /50° C
33,3 bar	200 °C	33,7 bar	200 °C
27,6 bar	300 °C	29,7 bar	300 °C
25,7 bar	350 °C	28,5 bar	350 °C
23,8 bar	400 °C	27,4 bar	400 °C

Note: Maximum temperature limited to the valve packing selected.
Valves with soft seat , maximum allowable temperature : 200°C

* Rating according to EN1092-1:2007

DIMENSIONS - ACTUATOR

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


DIMENSIONS - VALVE BODY

DN	A (mm)	B (mm)	C (mm) BONNET		
			STANDARD	FINNED	BELLOWS
1/2"	100	37,5	85	150	275
3/4"	100	37,5	85	150	275
1"	100	37,5	85	165	275

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

VALVE STROKE IN mm

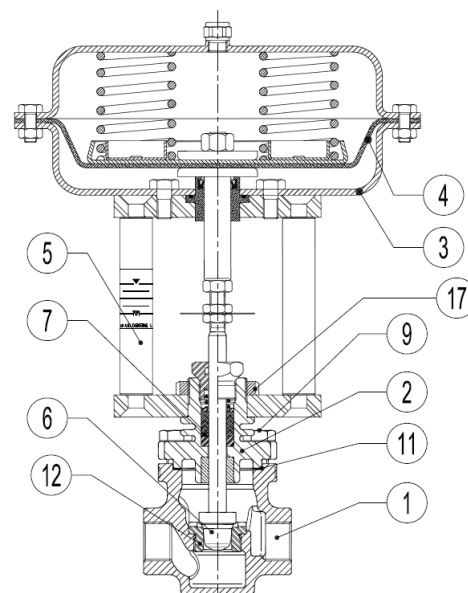
	SIZES		
	DN15	DN20	DN25
Stroke	20	20	20

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

MATERIALS

POS.	DESIGNATION	MATERIAL V25I
1	Valve Body	CF8M / 1.4408
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 plug	PTFE/GR ; St.Steel
7	*Standard packing	PTFE/GR
8	*Metal bellows	AISI316Ti / 1.4571
9	Studs	A4-70
10	Nuts	A4-70
11	Gasket	St.Steel / Graphite
12	Seat	Stainless Steel
13	Gasket	St.Steel / Graphite
14	Gasket	St.Steel / Graphite
15	Straight pin	Stainless Steel
16	Bolts	A4-70
17	Lock nut	Stainless Steel

* Available spare parts





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"	DN11/4"	DN11/2"	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"	DN11/4"	DN11/2"	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.



ORDERING CODES V25 - THREADED

VALVE CODES		V	.25	S						.X.
Actuator Type (1)										
Pneumatic Actuator	P									
Electric Actuator	E									
Group Designation										
Globe valve, two way, straight body	V									
Valve Model										
PN25, two way, cast steel valve	.25	S								
PN25, two way, complete stainless steel valve	.25	I								
Stem Sealing										
PTFE/GR-V-Rings / Standard bonnet									1	
Virgin PTFE V-Rings / Standard bonnet									2	
Graphite / Standard bonnet									3	
Graphite / Finned bonnet									4	
Bellows									8	
Valve Plug										
EQP (equal percentage) - Soft (PTFE-GR)										1
EQP (equal percentage) - Metal AISI316 / 1.4401										3
EQP (equal percentage) - Stellite										4
PL (linear) - Soft (PTFE/GR)										6
PL (linear) - Metal AISI316 / 1.4401										7
PT (on-off) - Soft (PTFE/GR)										9
PT (on-off) - Metal AISI316 / 1.4401										10
Pipe Connection										
Threaded BSP ISO 7/1 Rp										A
Threaded NPT ANSI B1.20.1										C
Size										
DN 1/2"										15
DN 3/4"										20
DN 1"										25
Actuator										(1)
Extras (3)										E

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

→ To be introduced on ".X.", if supplied in combination with the valve.
 Example:
 V25I valve model EQP soft plug, PTFE/GR stem sealing DN1"BSP complete with reverse action actuator signal 0,4-1,2bar, size340A steel.

Code: PV.25I.11A25.5R18

REMARKS:
 (1)- Indicate actuator type.
 (2)- Omitted if the standard actuator is selected.
 (3)- To be used only when a non-standard combination valve is supplied.
 ADCATROL control valves are identified by a serial number on a nameplate, located on the actuator yoke.
 Always order spares by using that serial number. If the valve has non-standard extras the serial number has also an E (extras).