

PNEUMATIC CONTROL VALVES

PWV40I

(WV40I globe valves series with linear actuators PA series)

DESCRIPTION

The PWV40I control 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). The PWV40I 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 ways, direct or reverse action valve.
Valve top flange permanently attached to the body, removal is unnecessary for replacing the actuator.
Stainless steel construction and soft sealing as standard.



OPTIONS:

- Position transmitter 4-20 mA
- Pneumatic pilot positioner
- Electropneumatic pilot positioner
- Air filter regulator
- Top-work manual handwheel

USE:

- Saturated and superheated steam.
- Hot and superheated water.
- Air, gases and other noncorrosive fluids.

AVAILABLE MODELS: PWV40I

VALVE SIZES: DN15 to DN25

CONNECTIONS: Sandwiched between flanges as per EN 1092-1 PN16/40

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.

VALVE LIMITING CONDITIONS	
PRESSURE / TEMPERATURE	
40 bar	-10/100°C
33,7 bar	200 °C
31,8 bar	250 °C
29,7 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

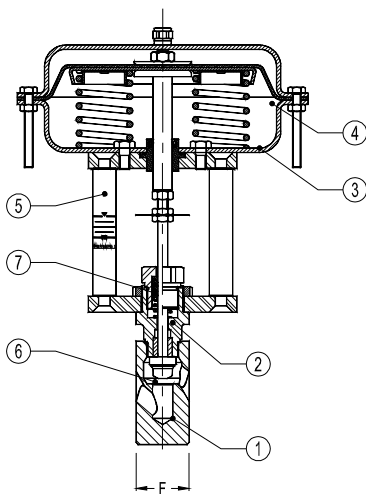
BONNET : From -5°C to +200°C (standard)
Finned for temperature >200°C

STEM SEALING: PTFE/GR V-Rings - up to 220°C (Standard bonnet)
Graphite - up to 300°C (Finned bonnet)

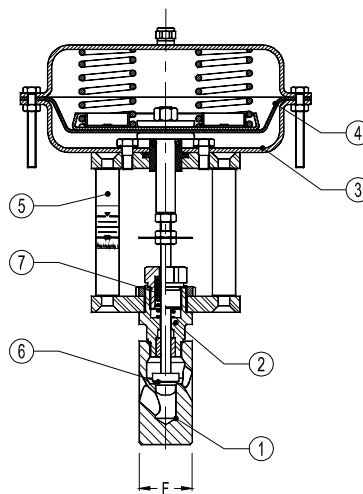
PLUG CHARACT.: PL - Linear

PLUG DESIGN: Contoured
Microflow

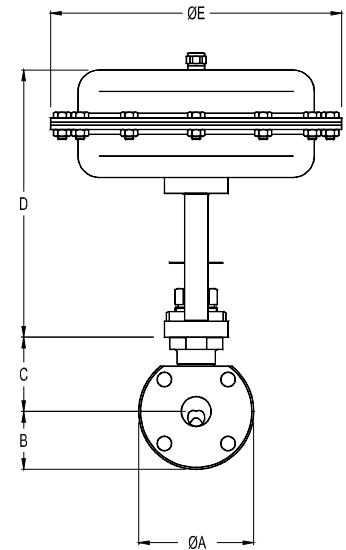
PORT: Reduced port



PWV40I DA - Direct action



PWV40I RA - Reverse action



PWV40I - Direct and reverse action from DN15 to DN25

DIMENSIONS - VALVE BODY

DN	A (mm)	B (mm)	F (mm)	C (mm) BONNET	
				STANDARD	EXTENDED
15	99	45	38	70	140
20	99	45	38	70	140
25	109	55	50	70	140

DIMENSIONS - ACTUATOR

Type	ø E (mm)	D (mm)	WEIGHT Kgs
		DN15-25 DA/RA	
PA-205	210	235	5,7
PA-280	275	240	8,8
PA-340	335	265	14,3

MATERIALS

POS.	DESIGNATION	MATERIAL
1	Valve Body	AISI 316 / 1.4401
2	Bonnet	AISI316 / 1.4401
3	* Actuator (Steel)	S235JRG2 / 1.0038
	* Actuator (St. steel)	AISI304 / 1.4301
4	Diaphragm	NBR70
5	Yoke (steel)	C45E / 1.1191
	Yoke (st. steel)	AISI304 / 1.4301
6	Valve plug	St. Steel - PTFE/GR
7	Standard packing	PTFE/GR

* Electric actuator : see IS EL20.00 E

MAX. PRESSURE DROPS IN BAR (Fluid Open)

ACTUATOR	CONTROL SIGNAL	SIZES		
		DN15	DN20	DN25
PA-205	0,2 ÷ 1 bar	8	8	7,5
	0,4 ÷ 1,2 bar	12	12	9
	0,4 ÷ 2 bar	14	14	11
PA-280	0,2 ÷ 1 bar	32	27	18
	0,4 ÷ 1,2 bar	41	40	22
	0,4 ÷ 2 bar	52	47	27
PA-340	0,2 ÷ 1 bar	60	60	50
	0,4 ÷ 1,2 bar	80	80	60
	0,4 ÷ 2 bar	100	100	80

ACTUATOR STROKE IN mm

	SIZES		
	DN15	DN20	DN25
Stroke	15	15	15

FLOW RATE COEFFICIENTS

	SIZES		
	DN15	DN20	DN25
Kvs	1,7	2,2	5,5

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



ORDERING CODES WV40I

VALVE CODES		WV	.40	I						.X.
Actuator Type (1)										
Pneumatic Actuator	P									
Electric Actuator	E									
Group Designation										
Globe valve, two way, straight body, wafer type		WV								
Valve Model										
PN40, two way, complete stainless steel valve			.40	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	
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	
Pipe Connection										
Flanged EN 1092-1 PN40										N
Size										
DN 15										15
DN 20										20
DN 25										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:
 WV40I valve model EQP soft plug, PTFE/GR stem sealing DN25 complete with reverse action actuator signal 0,4-1,2bar, size340A steel.

Code: PWV40I.11N25.5R18

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).