

PNEUMATIC ON/OFF GLOBE VALVES PV15 (EN)

DESCRIPTION

The ADCATrol PV15 is a series of single seated, two-way pneumatic on/off globe valves with diaphragm actuator. These valves are suitable for use with the most common process fluids such as steam, water, superheated water, air, neutral gases and oils.

MAIN FEATURES

- Easy to service.
- Compact and cost-effective.
- Class VI shut-off with PTFE/GR soft sealing up to 200 °C.
- Stem guided (up to DN 50) and post guided (from DN 65 to DN 100).
- Compact actuators with rolling diaphragm.
- High spring thrusts and stroking speeds.
- Yoke and stem coupling with mounting according to NAMUR (DIN IEC 60534-6-1).
- Ambient temperature from -10 °C to 80 °C.

OPTIONS AND

ACCESSORIES: Top mounted handwheel.
Filter regulators, solenoid valves and limit switches.

USE: Saturated steam.
Hot and superheated water.
Air, gases and others.

AVAILABLE

MODELS: PV15G – SG iron.
PV15S – carbon steel.
PV15i – stainless steel.

SIZES: DN 15 to DN 100.

CONNECTIONS: PV15G – Flanged EN 1092-2 PN 16.
PV15S and PV15i – Flanged EN 1092-1
PN 16 or PN 40.



CE MARKING – GROUP 2 (PED – European Directive)

PN 16	PN 40	Category
DN 15 to 50	DN 15 to 32	SEP
DN 65 to 100	DN 40 to 100	1 (CE marked)

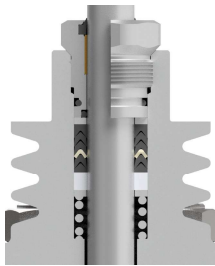
BODY LIMITING CONDITIONS

PV15G **		PV15S *				PV15i *			
FLANGED PN 16		FLANGED PN 16		FLANGED PN 40		FLANGED PN 16		FLANGED PN 40	
ALLOW. PRESSURE	RELATED TEMP.	ALLOW. PRESSURE	RELATED TEMP.	ALLOW. PRESSURE	RELATED TEMP.	ALLOW. PRESSURE	RELATED TEMP.	ALLOW. PRESSURE	RELATED TEMP.
16 bar	-10 °C/50 °C	16 bar	-10 °C/50 °C	40 bar	-10 °C/50 °C	16 bar	-10 °C/50 °C	40 bar	-10 °C/50 °C
14,7 bar	200 °C	13,3 bar	200 °C	33,3 bar	200 °C	13,4 bar	200 °C	33,7 bar	200 °C
13,9 bar	250 °C	12,1 bar	250 °C	27,6 bar	300 °C	12,7 bar	250 °C	29,7 bar	300 °C
12,8 bar	300 °C	11 bar	300 °C	25,7 bar	350 °C	11,8 bar	300 °C	28,5 bar	350 °C
11,2 bar	350 °C	10,2 bar	350 °C	23,8 bar	400 °C	11,4 bar	350 °C	27,4 bar	400 °C

* Rating according to EN 1092-1:2018; ** Rating according to EN 1092-2:2007.

STEM SEALING

PTFE/GR V-RINGS
(V1.2)



-10 °C to 220 °C

PLUG DESIGN

PARABOLIC (SOFT SEALING)



Sealing: PTFE/GR
Characteristic: Quick-opening (On/Off)
Flow direction: From below
Leakage: Class VI, acc. to IEC 60534-4
Max. temp.: 200 °C

FLOW RATE COEFFICIENTS (m³/h)

	SIZES								
	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100
Kvs	5,1	6,3	10	16	25	40	63	100	160
SEAT Ø (mm)	19,2	19,2	25	32	38	48	65	76	96
STROKE (mm)	5	8	8	10	10	12,5	20	20	25

For conversion Kvs = Cv (US) x 0,865.

PV15 – PA SERIES ACTUATORS – FTO, UNBALANCED TRIM, SOFT SEALING (CLASS VI)

VALVE SIZE	ACTUATOR MODEL	MAX. PERMISSIBLE PRESSURE DROP (bar)							MAX. AIR SUPPLY PRESSURE (bar)			
		AIR TO OPEN (stem extends by spring force)	AIR TO CLOSE (stem retracts by spring force)						AIR TO OPEN (stem extends by spring force)		AIR TO CLOSE (stem retracts by spring force)	
			AIR SUPPLY PRESSURE (bar)						MIN.	MAX.	MIN.	MAX.
DN 15	PA10 (100cm²)	40	17,4	32	40	40	40	4,2	6	1,4	6	
DN 20	PA10 (100cm²)	40	14,5	29,1	40	40	40					
DN 25	PA10 (100cm²)	40	8,5	17,1	31,3	40	40					
DN 32	PA10 (100cm²)	27,1	4,4	9,7	18,4	27,1	35,8					40
DN 40	PA10 (100cm²)	17,9	3,1	6,8	13	19,2	25,3					31,5
DN 50	PA10 (100cm²)	10,2	1,5	3,8	7,7	11,6	15,5					19,3
	PA25 (250cm²)	26,2	4,4	10,2	19,9	29,6	39,2					40
DN 65	PA25 (250cm²)	10,3	0,8	4	9,2	14,5	19,8					25,1
	PA40 (400cm²)	22,1	-	-	-	-	-					-
DN 80	PA25 (250cm²)	7,5	0,6	2,9	6,7	10,6	14,5					18,3
	PA40 (400cm²)	16,2	-	-	-	-	-	-				
DN100	PA40 (400cm²)	9	1,1	3,5	7,3	11,2	-	-	4			

ACCESSORIES

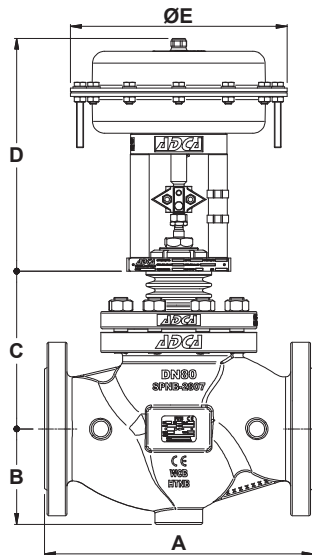
AIR FILTER REGULATOR AND SOLENOID VALVE



INDUCTIVE LIMIT SWITCH BOX



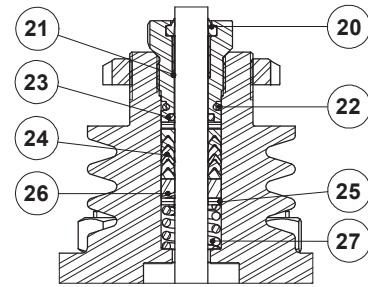
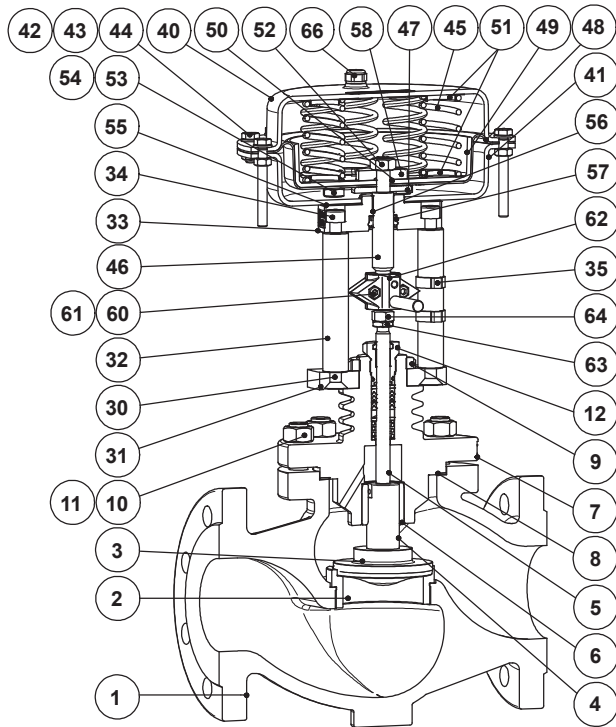
MECHANICAL LIMIT SWITCHES



DIMENSIONS (mm)

SIZE	A	B	C	PA10 *			PA25 *			PA40 *		
				D	ØE	WEIGHT (kg)	D	ØE	WEIGHT (kg)	D	ØE	WEIGHT (kg)
DN 15	130	52	104	267	170	11,5	-	-	-	-	-	-
DN 20	150	53	104	267	170	12,3	-	-	-	-	-	-
DN 25	160	58	109	267	170	13,1	-	-	-	-	-	-
DN 32	180	70	109	267	170	16,3	-	-	-	-	-	-
DN 40	200	75	113	267	170	18,8	-	-	-	-	-	-
DN 50	230	85	125	267	170	22,4	270	250	26,1	-	-	-
DN 65	290	100	176	-	-	-	270	250	40,3	334	300	48,9
DN 80	310	110	182	-	-	-	270	250	46,6	334	300	55,2
DN 100	350	130	194	-	-	-	-	-	-	334	300	66,8

* For more information, including top mounted handwheel dimensions, please consult IS 3.70 – PA linear pneumatic actuators.



PTFE/GR V-Rings
(V1.2)

MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Valve body (PV15G)	GJS-400-15 / 0.7040
	Valve body (PV15S)	A216 WCB / 1.0619
	Valve body (PV15i)	A351 CF8M / 1.4408
2	* Seat	AISI 316L / 1.4404
3	* Valve plug	AISI 316L / 1.4404; Graphite filled PTFE
4	* Post stem	AISI 316L / 1.4404
5	* Stem	AISI 316L / 1.4404
6	Stem guide	Bronze
7	Bonnet	A351 CF8M / 1.4408
8	Gasket	Stainless steel / Graphite
9	Lock nut	A351 CF8 / 1.4308
10	Nuts (PV15G and PV15S)	EN 10269 steel
	Nuts (PV15i)	Stainless steel A2-70
11	Studs (PV15G and PV15S)	EN 10269 steel
	Studs (PV15i)	Stainless steel A2-70
12	Packing nut	AISI 303 / 1.4305
20	* Scraper ring	Viton; NBR
21	* Plain bearing	Bronze / PTFE
22	* O-ring	EPDM
23	* O-ring	Viton
24	* Chevron packing set	PTFE; Graphite filled PTFE
25	Washer	AISI 304 / 1.4301
26	Stem guide	Stainless steel filled PTFE
27	Spring	AISI 302 / 1.4300

* Available spare parts.

MATERIALS

POS. N°	DESIGNATION	MATERIAL
30	Bolts (steel)	Zinc plated steel
	Bolts (stainless steel)	Stainless steel A2-70
31	Lower actuator flange	A351 CF8 / 1.4308
32	Yoke columns	C45E / 1.1191
33	Upper actuator flange	A351 CF8 / 1.4308
34	Bolts	Zinc plated steel
35	Crimp clamps	Zinc plated steel
40	Upper actuator cover (steel)	DD13 / 1.0335
	Upper actuator cover (stainless steel)	AISI 304 / 1.4301
41	Lower actuator cover (steel)	DD13 / 1.0335
	Lower actuator cover (stainless steel)	AISI 304 / 1.4301
42	Bolts (steel)	Zinc plated steel
	Bolts (stainless steel)	Stainless steel A2-70
43	Washer (steel)	Zinc plated steel
	Washer (stainless steel)	Stainless steel A2
44	Nuts (steel)	Zinc plated steel
	Nuts (stainless steel)	Stainless steel A2-70
45	* Springs	Spring steel
46	Actuator stem	AISI 316L / 1.4404
47	Lower diaphragm disc	C45E / 1.1191
48	* Diaphragm	Reinforced NBR
49	Diaphragm plate	DD13 / 1.0335
50	* O-ring	NBR
51	Spring guide	DC01 / 1.0330
52	Nuts	Zinc plated steel
53	Bolts	Zinc plated steel
54	Washers	Zinc plated steel
55	* Gasket (PA10 and PA25)	NBR
56	* Plain bearing	Steel / PTFE
57	* Seal ring	Polyurethane
58	Spacer	C45E / 1.1191
60	Bolts	Zinc plated steel
61	Nuts	Zinc plated steel
62	Coupling / travel indicator	A351 CF8 / 1.4308
63	Lock nut	AISI 304 / 1.4301
64	Adapter Lock nut	AISI 304 / 1.4301
66	Vent plug	Brass; plastic

* Available spare parts.

ORDERING CODES PV15													
Valve model	PV15	1	G	U	1	3	10	S	R	X	L	15	
Pneumatic on/off globe valve, two-way, straight body	PV15												
Valve series													
Series 1		1											
Body material													
GJS-400-15 / 0.7040 SG iron			G										
A216 WCB / 1.0619 carbon steel			S										
A351 CF8M / 1.4408 stainless steel			I										
Flow direction													
Flow under the plug				U									
Stem sealing													
PTFE/GR V-Rings (V1.2)					1								
Valve sealing													
Soft sealed with PTFE/GR (class VI)						3							
Actuator model													
PA10 (100 cm ²)							10						
PA25 (250 cm ²)							25						
PA40 (400 cm ²)							40						
Actuator construction													
Mild steel construction (standard)								S					
Stainless steel construction								I					
Actuator direction of action													
Air to open (stem extends by spring force)									R				
Air to close (stem retracts by spring force)									D				
Options													
None										X			
Top mounted handwheel a)										H			
Pipe connection													
Flanged EN 1092-1/-2 PN 16											L		
Flanged EN 1092-1 PN 40											N		
Size													
DN 15												15	
DN 20												20	
...													
Special valves / Extras													
Full description or additional codes have to be added in case of a non-standard combination													E

a) Not available in actuators with stainless steel construction (e.g. PA10i).