

**PNEUMATIC CONTROL VALVES  
PNEUMATIC ANGLE TYPE INTERCEPTION VALVE  
PAV21**

**DESCRIPTION**

The PAV series angle seat interception valves are designed for use with steam, gases and other fluids used in the process industry. They are the efficient solution to fluid interception in applications where flexibility and affordable cost are required.

**MAIN FEATURES**

- Stainless steel body with high coefficient of flow.
- Resistance to corrosion.
- Low air consumption.
- Nylon rotational servo control.
- Self-centering plug with soft sealing.
- Live loading packing gland.



**OPTIONS AND ACCESSORIES:**

- Pilot solenoid valves.
- Inductive travel switch.

**USE:** Saturated steam, water and other fluids compatible with the construction.

**AVAILABLE MODELS:** PAV21 – pneumatic angle valve.

**SIZES:** 1/2" to 2".

**CONNECTIONS:** Female threaded ISO 7 Rp.

**AVAILABLE ACTUATORS:** PPI-63 (stainless steel).  
PPI-90 (stainless steel).

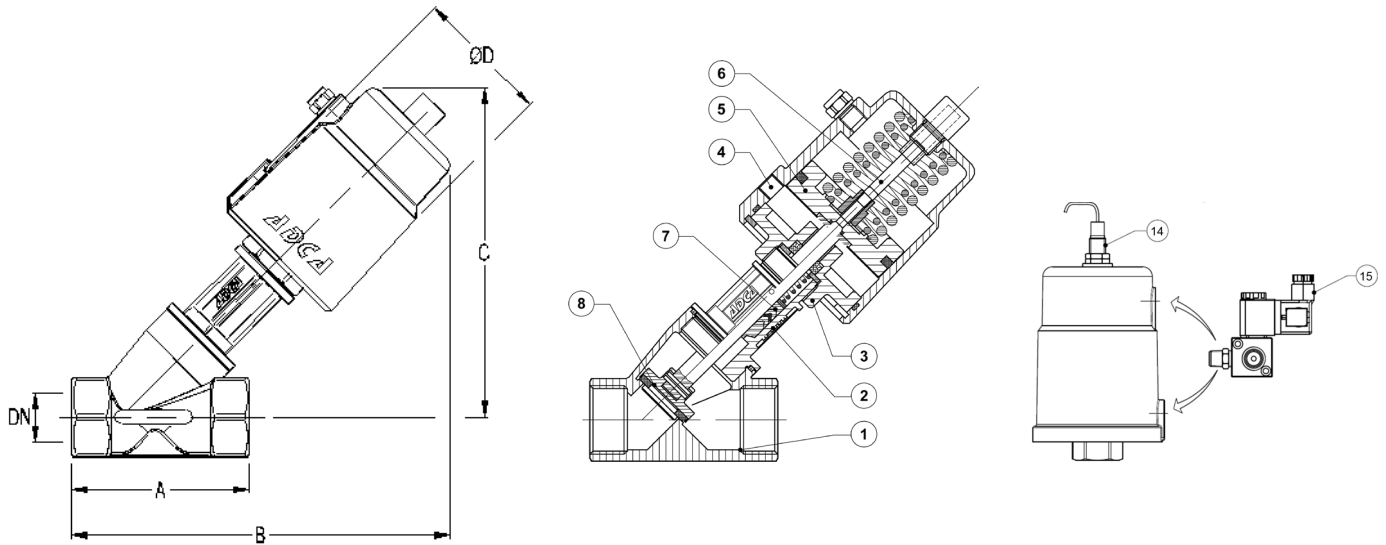
**ACTUATORS CONNECTIONS:** PPI-63: 1/8" NPT.  
PPI-90: 1/4" NPT.

**AIR SUPPLY PRESURE:** 5 – 8 bar (max. 8 bar).

**AMBIENT TEMP.:** -20 °C to 70 °C.

CE MARKING – GROUP 2 (PED – European Directive)	
PN 16	Category
1/2" to 2"	SEP

LIMITING CONDITIONS	
<b>Valve model</b>	<b>PAV21</b>
Body design conditions	PN 16
Max. working temperature	200 °C
Min. working temperature	- 10 °C



**DIMENSIONS (mm)**

SIZE	A	B	W/ PPI-63			WITH PPI-90		
			C	D	WGT. (kg)	C	D	WGT. (kg)
1/2"	68	174	155	75	1,35	155	110	2,4
3/4"	75	182	158	75	1,45	158	110	2,5
1"	90	190	166	75	1,65	166	110	2,7
1 1/4"	116	261	227	75	2,3	227	110	3,3
1 1/2"	116	265	229	75	2,55	229	110	3,5
2"	138	282	238	75	3,6	238	110	4,7

**MATERIALS**

POS. N°	DESIGNATION	MATERIAL
1	Valve body	A351 CF8M / 1.4408
2	Bonnet	A351 CF8 / 1.4308
3	Actuator flange	A351 CF8 / 1.4308
4	Actuator cover	A351 CF8 / 1.4308
5	Piston	Aluminium
6	Indication stem	Plastic
7	* Packing	PTFE/GR
8	* Valve plug	AISI 316 / 1.4401; PTFE/GR
9	** Travel switch	Metal
10	** SV32C solenoid valve	Aluminium alloy

\* Available spare parts.

\*\* Optional.

**TRAVEL SWITCH**

The travel switch provides an electrical signal that indicates either the open or closed position of the valve. This signal is given by a non-contact electronic inductive proximity sensor.

**FLOW RATE COEFFICIENTS**

SIZE	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Kvs	4,8	9,5	18	23,2	32,7	52,6

**MAX. PERM. PRESSURE DROP (bar) – N.C. (fluid to open) – Reverse action actuator (air signal to open)**

ACTUATOR	AIR SUPPLY	VALVE SIZE					
		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
PPI-63	5 – 8 bar	16	16	14	-	-	-
PPI-90	5 – 8 bar	-	-	-	16	16	10

Remark: waterhammer free design.

**MAX. PERM. PRESSURE DROP (bar) – N.C. (fluid to close) – Reverse action actuator (air signal to open)**

ACTUATOR	AIR SUPPLY	VALVE SIZE					
		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
PPI-63	5 – 8 bar	16	16	16	-	-	-
PPI-63	6 – 8 bar	16	16	16	-	-	-
PPI-63	7 – 8 bar	16	16	16	-	-	-
PPI-90	5 – 8 bar	-	-	-	16	-	-
PPI-90	6 – 8 bar	-	-	-	16	16	-
PPI-90	7 – 8 bar	-	-	-	16	16	16

Remark: not recommended when controlling liquids at high speed due to waterhammer occurrence

ORDERING CODES PAV21								
VALVE CODES	PAV	.21	1	A	15	A	.X.	
<b>Group designation</b>								
Pneumatic on/off angle valve	PAV							
<b>Valve model</b>								
Two way straight design, stainless steel construction		.21						
<b>Valve plug</b>								
PT (on/off) – Soft (PTFE/GR)			1					
<b>Pipe connection</b>								
Female threaded ISO 7/1 Rp				A				
Female threaded NPT				C				
<b>Size</b>								
1/2"					15			
3/4"					20			
...								
<b>Fluid direction</b>								
Fluid enters above the seat						A		
Fluid enters below the seat						B		
<b>Actuator</b>							(1)	
<b>Extras</b>								
Full description or additional codes have to be added in case of non-standard combination.								E

ACTUATOR CODES (PNEUMATIC)			
VALVE CODES	PI.	.63	.D
<b>Group designation</b>			
Piston linear actuator	PI.		
<b>Actuator type</b>			
PPI-63		.63	
PPI-90		.90	
<b>Actuator type</b>			
Direct action (air to close)			.D
Reverse action (air to open)			.R
<b>Actuator Construction</b>			
Stainless steel construction			(2)

→ To be introduced on ".X.", if supplied in combination with the valve.

Example:

PAV valve, on/off soft plug, 1/2", fluid entering above the seat, complete with reverse action stainless steel actuator:

Code: PAV.211A15A.90.R

REMARKS:

- (1) – Indicate actuator.
- (2) – Omitted if the standard valve is selected.

ADCA Trol control valves are identified by a serial number on a nameplate, located on the actuator yoke.

When ordering spares, always use that serial number. If the valve has non-standard extras the serial number has also an E (extras).