

## PNEUMATIC CONTROL VALVES PPV25I ON/OFF

### DESCRIPTION

The PPV25I on/off valves are single seated, two-way body constructed with in-line straight connections. The PPI pneumatic actuator is of the piston type.

Their wide application range allows the use of this valve with the most common process fluids such as water, superheated water, steam, air, gas and other fluids.

### MAIN FEATURES

Single seated, two way, direct or reverse action valve.

Soft sealing as standard.

Actuator housing 360° rotation (clockwise).

### OPTIONS AND

- ACCESSORIES:**
- Air filter regulator.
  - Normally open and double effect actuator versions.
  - Inductive travel switch.
  - Pilot solenoid valve.

- USE:**
- Saturated and superheated steam.
  - Hot and superheated water.
  - Air, gases and other non corrosive fluids.

- AVAILABLE MODELS:**
- PPV25I – stainless steel.

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

- CONNECTIONS:**
- Female threaded ISO 7 Rp or NPT.

- 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.

### BONNET:

Standard – up to 220 °C.  
Extended finned – above 220 °C.

### STEM

**SEALING:** PTFE/GR V-Rings – up to 220 °C.

### PLUG

**DESIGN:** PT – on/off.

### PORT:

Full port as standard.

#### CE MARKING – GROUP 2 (PED – European Directive)

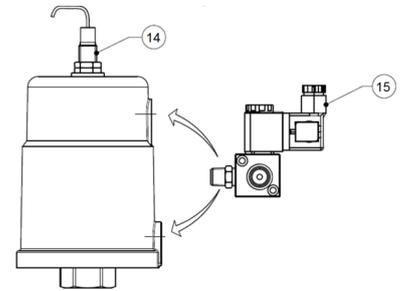
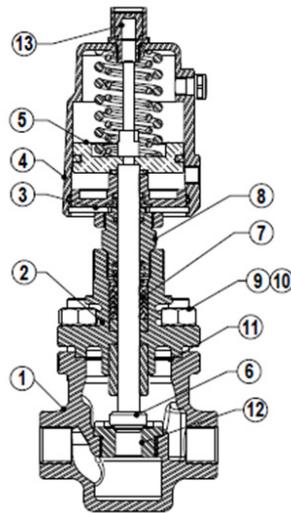
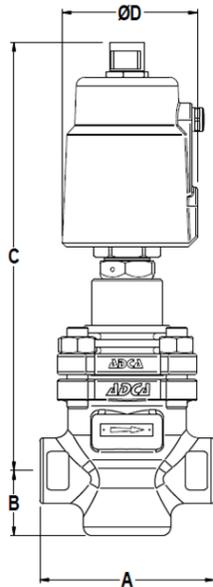
PN 25	Category
1/2" to 1"	SEP

#### BODY LIMITING CONDITIONS \*

ALLOWABLE PRESSURE	RELATED TEMPERATURE
25 bar	-10 °C / 50 °C
21 bar	200 °C
19,8 bar	250 °C
18,5 bar	300 °C

\* Rating according to EN 1092-1:2018.

Remarks: Max. temperature limited to the valve packing selected. Valves with soft sealing, max. allowable temperature: 200 °C.



DIMENSIONS (mm)					
SIZE	A	B	C	D	WEIGHT (kg)
1/2"	100	37,5	250	75	3,9
3/4"	100	37,5	250	75	3,9
1"	100	37,5	250	75	4,9

### 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 (m³/h)			
SIZE	1/2"	3/4"	1"
Kvs	5,2	7,3	11,7

For conversion Kvs = Cv (US) x 0,855.

MAX. PERM. PRESSURE DROP (bar) – N.C. (fluid to open) – Reverse action actuator (air signal to open)			
ACTUATOR	VALVE SIZE		
	1/2"	3/4"	1"
PPI-63	21	18	8
PPI-90	25	25	24

MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Valve body	A351 CF8M / 1.4408
2	Bonnet	A351 CF8M / 1.4408
3	Actuator flange	A351 CF8 / 1.4308
4	Actuator cover	A351 CF8 / 1.4308
5	Piston	Aluminium
6	* Valve plug	AISI 316 / 1.4401; PTFE/GR
7	* Packing	PTFE/GR
8	Gland nut	AISI 316 / 1.4401
9	Studs	Stainless steel A4-70
10	Nuts	Stainless steel A4-70
11	Gasket	Stainless steel / Graphite
12	Seat	AISI 316 / 1.4401
13	Indication stem	Plastic
14	** Travel switch	Metal
15	** SV32C valve	Alluminium alloy

\* Available spare parts.

\*\* Optional.

ORDERING CODES PPV25I								
VALVE CODES	PPV	.25I	9	A	15	A	.X.	
<b>Group designation</b>								
Pneumatic on/off valve	PPV							
<b>Valve model</b>								
A351 CF8M body, stainless steel trim		.25I						
<b>Valve plug</b>								
PT (on/off) – Soft (PTFE/GR)			9					
PT (on/off) – Metallic (AISI 316 / 1.4401)			10					
<b>Pipe connection</b>								
Female threaded ISO 7 Rp				A				
Female threaded NPT				C				
<b>Size</b>								
1/2"					15			
3/4"					20			
1"					25			
<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:

PPV25I valve model, on/off soft plug, size 1/2", fluid entering above the seat, complete with reverse action stainless steel actuator PPI-63:

Code: PPV.25I9A15A.63.R

REMARKS:

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

ADCATrol 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).

## PNEUMATIC CONTROL VALVES PPV25 ON/OFF

### DESCRIPTION

The PPV25 on/off valves are single seated, two-way body constructed with in-line straight connections. The PPI pneumatic actuators are of the piston type.

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 fluids.

### MAIN FEATURES

Single seated, two way, direct or reverse action valve.

Soft sealing as standard.

Actuator housing 360° rotation (clockwise).

### OPTIONS AND

**ACCESSORIES:** Air filter regulator.  
Normally open and double effect actuator versions.  
Inductive travel switch.  
Pilot solenoid valve.

**USE:** Saturated and superheated steam.  
Hot and superheated water.  
Air, gases and other non corrosive fluids.

**AVAILABLE MODELS:** PPV25G – SG iron.  
PPV25I – stainless steel.

**SIZES:** DN 15 to DN 50.

**CONNECTIONS:** Flanged EN 1092-1/-2 PN 16.

**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.

**BONNET:** Standard – up to 220 °C.  
Extended finned – above 220 °C.

**STEM**  
**SEALING:** PTFE/GR V-Rings – up to 220 °C.

**PLUG**  
**DESIGN:** PT – on/off.

**PORT:** Full port as standard.

#### CE MARKING – GROUP 2 (PED – European Directive)

PN 16	Category
DN 15 to 50	SEP

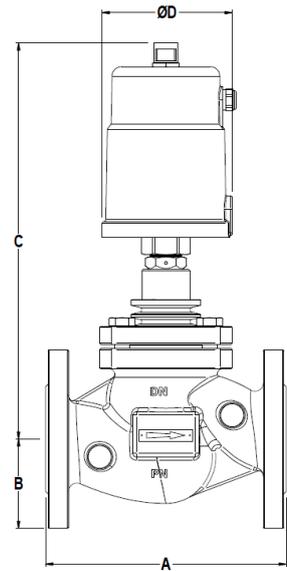
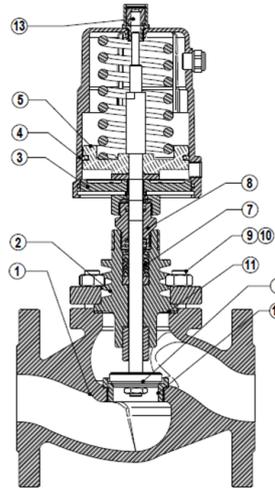
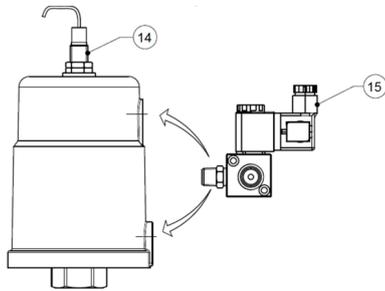
#### BODY LIMITING CONDITIONS

PPV25G *		PPV25I **	
ALLOWABLE PRESSURE	RELATED TEMPERATURE	ALLOWABLE PRESSURE	RELATED TEMPERATURE
16 bar	-10 / 120 °C	16 bar	-10 / 100 °C
15,5 bar	150 °C	14,5 bar	150 °C
14,7 bar	200 °C	13,4 bar	200 °C
13,9 bar	250 °C	12,7 bar	250 °C
12,8 bar	300 °C	11,8 bar	300 °C

\* Rating according to EN 1092-2:2007.

\*\* Rating according to EN 1092-1:2018.

Remarks: Max. temperature limited to the valve packing selected. Valves with soft sealing, max. allowable temperature: 200 °C.



**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 (m <sup>3</sup> /h)						
SIZE	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
Kvs	5,2	7,3	11,7	18	27	43

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

ACTUATOR	AIR SUPPLY	VALVE SIZE					
		DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
PPI-63	5 – 8 bar	18	18	8	4	3	-
PPI-90	5 – 8 bar	-	-	24	18	13	9

Remark: waterhammer free design.

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

ACTUATOR	AIR SUPPLY	VALVE SIZE					
		DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
PPI-63	5 – 8 bar	16	16	16	16	16	-
PPI-90	5 – 8 bar	-	-	16	16	16	8

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					
		DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
PPI-63	5 – 8 bar	16	16	16	-	-	-
PPI-63	6 – 8 bar	16	16	16	16	-	-
PPI-63	7 – 8 bar	16	16	16	16	16	8
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

**DIMENSIONS (mm)**

SIZE	A	B	W/ PPI-63			WITH PPI-90		
			C	D	WGT. (kg)	C	D	WGT. (kg)
DN 15	130	48	250	75	3,7	300	110	5,2
DN 20	150	53	250	75	4,5	300	110	6
DN 25	160	58	250	75	5,5	300	110	7
DN 32	180	70	270	75	7	325	110	8,5
DN 40	200	75	280	75	9,7	330	110	11,2
DN 50	230	83	290	75	11,7	340	110	13,2

**MATERIALS**

POS. N°	DESIGNATION	PPV25G	PPV25I
1	Valve body	GJS-400-15 / 0.7040	A351 CF8M / 1.4408
2	Bonnet	A351 CF8M / 1.4408	A351 CF8M / 1.4408
3	Actuator flange	A351 CF8 / 1.4308	A351 CF8 / 1.4308
4	Actuator cover	A351 CF8 / 1.4308	A351 CF8 / 1.4308
5	Piston	Aluminium	Aluminium
6	* Valve plug	AISI 316 / 1.4401; PTFE/GR	AISI 316 / 1.4401; PTFE/GR
7	* Packing	PTFE/GR	PTFE/GR
8	Gland nut	AISI 316 / 1.4401	AISI 316 / 1.4401
9	Studs	34CrNiMo6 / 1.6582	Stainless steel A4-70
10	Nuts	Steel 8.8	Stainless steel A4-70
11	Gasket	St. steel / Graphite	St. steel / Graphite
12	Seat	AISI 316 / 1.4401	AISI 316 / 1.4401
13	Indication stem	Plastic	Plastic
14	** Travel switch	Metal	Metal
15	** SV32C valve	Aluminium alloy	Aluminium alloy

\* Available spare parts.

\*\* Optional.

ORDERING CODES PPV25								
VALVE CODES	PPV	.25G	9	L	15	A	.X.	
<b>Group designation</b>								
Pneumatic on/off valve	PPV							
<b>Valve model</b>								
GJS-400-15 body, stainless steel trim		.25G						
CF8M / 1.4408 body, stainless steel trim		.25I						
<b>Valve plug</b>								
PT (on/off) – Soft (PTFE/GR)			9					
PT (on/off) – Metallic (AISI 316 / 1.4401)			10					
<b>Pipe connection</b>								
Flanged EN 1092 PN 16				L				
<b>Size</b>								
DN 15					15			
DN 20					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:

PPV25G valve model, on/off soft plug, DN 15, fluid entering above the seat, complete with reverse action stainless steel actuator:

Code: PPV.25G9L15A.90.R

REMARKS:

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

ADCArol 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).