

PNEUMATIC ON/OFF ANGLE SEAT VALVES PAV21



DESCRIPTION

The ADCATrol PAV21 is a series of pneumatic angle seat shut-off valves with piston actuators. These valves are suitable for use with the most common process fluids such as steam, water, superheated water, air, neutral gases and oils. The PAV21 is recommended for applications where flexibility and affordability are important requirements.

MAIN FEATURES

- Corrosion resistant stainless steel body.
- Easy to service.
- Compact and cost-effective with high flow capacity.
- Self-centering plug with Class VI shut-off and PTFE/GR soft sealing up to 200 °C.
- Robust and compact piston actuator with 360° rotation.
- Ambient temperature from -10 °C to 80 °C.

OPTIONS AND

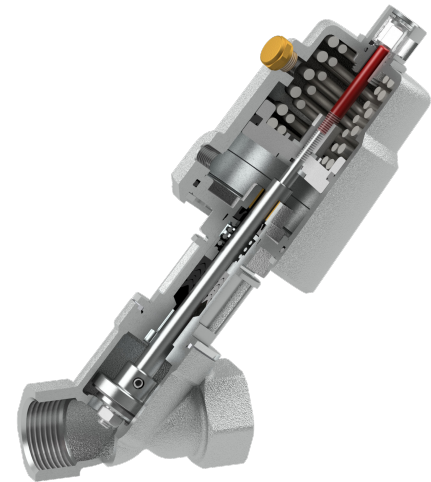
ACCESSORIES: M26 x 1,5 threaded connection on actuator.
Solenoid valves and limit switches.

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

AVAILABLE MODELS: PAV21.

SIZES: 1/2" to 2".

CONNECTIONS: Female threaded ISO 7 Rp or NPT.



CE MARKING – GROUP 2 (PED – European Directive)

| PN 16 | Category |
|------------|----------|
| 1/2" to 2" | SEP |

STEM SEALING

PTFE/GR V-RINGS

-10 °C to 200 °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 | | | | | |
|--------------------|-------|------|----|--------|--------|------|
| | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | 2" |
| Kvs | 4,8 | 9,5 | 18 | 23,2 | 32,7 | 52,6 |
| SEAT Ø (mm) | 13 | 18 | 24 | 31 | 35 | 45 |

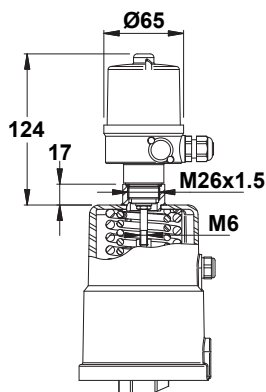
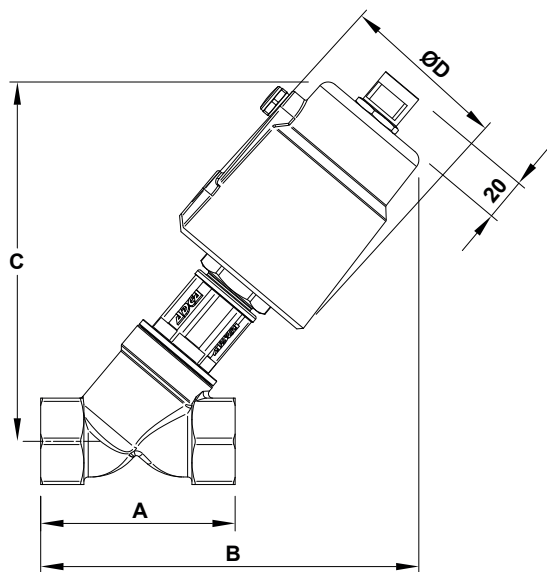
For conversion Kvs = Cv (US) x 0,865.

PAV21 – PPI SERIES ACTUATORS – FTO, UNBALANCED TRIM, SOFT SEALING (CLASS VI)

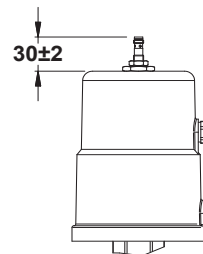
| VALVE SIZE | ACTUATOR MODEL | MAX. PERMISSIBLE PRESSURE DROP (bar) | | | | | | | | | AIR SUPPLY PRESSURE (bar) | | | |
|------------|----------------|--|--|------|------|------|------|------|----|----|--|------|--|------|
| | | AIR TO OPEN (stem extends by spring force) | AIR TO CLOSE (stem retracts 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. |
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| 1/2" | PPI63 (30cm²) | 16 | 6,2 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 5 | 8 | 1 | 8 |
| 3/4" | PPI63 (30cm²) | 16 | 3,1 | 11,4 | 16 | 16 | 16 | 16 | 16 | 16 | | | | |
| 1" | PPI63 (30cm²) | 14 | 1,7 | 6,3 | 10,9 | 15,6 | 16 | 16 | 16 | 16 | | | | |
| 1 1/4" | PPI90 (60cm²) | 16 | 2 | 7,5 | 13,1 | 16 | 16 | 16 | 16 | 16 | | | | |
| 1 1/2" | PPI90 (60cm²) | 16 | 1,5 | 5,9 | 10,2 | 14,6 | 16 | 16 | 16 | 16 | | | | |
| 2" | PPI90 (60cm²) | 10 | 0,9 | 3,5 | 6,1 | 8,8 | 11,4 | 14,1 | 16 | 16 | | | | |

ACCESSORIES

| SOLENOID VALVE | INDUCTIVE LIMIT SWITCH | LIMIT SWITCH BOX |
|----------------|------------------------|------------------|
| | | |



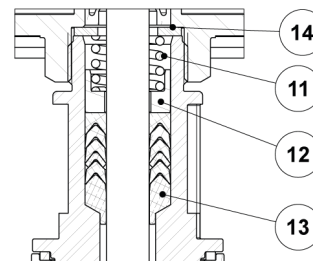
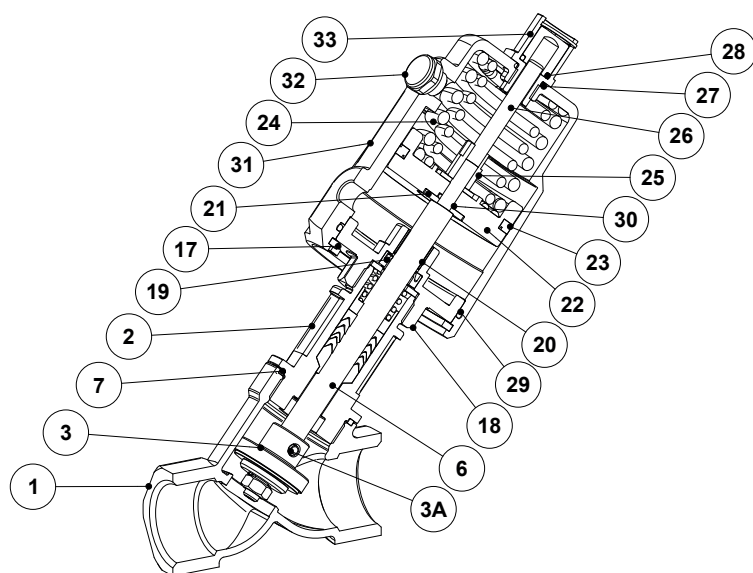
Limit switch box



Inductive limit switch

| DIMENSIONS (mm) | | | | | |
|-----------------|-----|-----|-----|-----|-------------|
| SIZE | A | B | C | ØD | WEIGHT (kg) |
| 1/2" | 68 | 174 | 155 | 75 | 1,4 |
| 3/4" | 75 | 182 | 158 | 75 | 1,5 |
| 1" | 90 | 190 | 166 | 75 | 1,7 |
| 1 1/4" | 116 | 261 | 227 | 110 | 3,3 |
| 1 1/2" | 116 | 265 | 229 | 110 | 3,5 |
| 2" | 138 | 282 | 238 | 110 | 4,7 |

MATERIALS



PTFE/GR V-Rings

| MATERIALS | | |
|-----------|---------------------------|--|
| POS. N° | DESIGNATION | MATERIAL |
| 1 | Valve body | A351 CF8M / 1.4408 |
| 2 | Bonnet | A351 CF8M / 1.4408 |
| 3 | * Valve plug | AISI 316L / 1.4404; Graphite filled PTFE |
| 3A | * Pin | Bronze CB1 |
| 6 | * Stem | AISI 316L / 1.4404 |
| 7 | * Gasket | PTFE |
| 11 | Spring | AISI 302 / 1.4310 |
| 12 | * Spring guide | AISI 304 / 1.4301 |
| 13 | * Chevron packing set | Graphite filled PTFE |
| 14 | Washer | AISI 304 / 1.4301 |
| 17 | Circlip | AISI 431 / 1.4057 |
| 18 | Actuator body | A351 CF8M / 1.4408 |
| 19 | * Seal ring | NBR |
| 20 | Plain bearing | Bronze / PTFE |
| 21 | Plate | AISI 304 / 1.4301 |
| 22 | Piston | Aluminium |
| 23 | * O-ring | NBR |
| 24 | * Springs | AISI 302 / 1.4310 |
| 25 | Rod | Aluminium |
| 26 | Indicator rod | Plastic |
| 27 | O-ring | NBR |
| 28 | O-ring | NBR |
| 29 | * O-ring | NBR |
| 30 | * O-ring | NBR |
| 31 | Actuator cover | A351 CF8 / 1.4308 |
| 32 | Silencer | Brass; Plastic |
| 33 | Visual position indicator | A351 CF8 / 1.4308; Acrylic |

* Available spare parts.

| ORDERING CODES PAV21 | | | | | | | | |
|--|--------|---|---|----|---|-----|----|---|
| Valve model | PAV.21 | 1 | A | 15 | B | .63 | .R | |
| Pneumatic on/off angle seat valve | PAV.21 | | | | | | | |
| Valve sealing | | | | | | | | |
| Soft sealed with PTFE/GR (class VI) | | 1 | | | | | | |
| Pipe connection | | | | | | | | |
| Female threaded ISO 7 Rp | | | A | | | | | |
| Female threaded NPT | | | C | | | | | |
| Size | | | | | | | | |
| 1/2" | | | | 15 | | | | |
| 3/4" | | | | 20 | | | | |
| ... | | | | | | | | |
| Flow direction | | | | | | | | |
| Flow under the plug | | | | | B | | | |
| Actuator model | | | | | | | | |
| PPI63 (30 cm ²) | | | | | | .63 | | |
| PPI90 (60 cm ²) | | | | | | .90 | | |
| Actuator direction of action | | | | | | | | |
| Air to open (stem extends by spring force) | | | | | | | .R | |
| Air to close (stem retracts by spring force) | | | | | | | .D | |
| Special valves / Extras | | | | | | | | |
| Full description or additional codes have to be added in case of non-standard combination. | | | | | | | | E |