

PVPK PNEUMATIC OPERATION RIGHT ANGLE ISOLATION VALVES

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The range of single acting cylinder, spring return pipeline valves is designed for high speed actuation from standard pneumatic lines, and are offered in sizes NW10, 16, 25, 40 and 50.

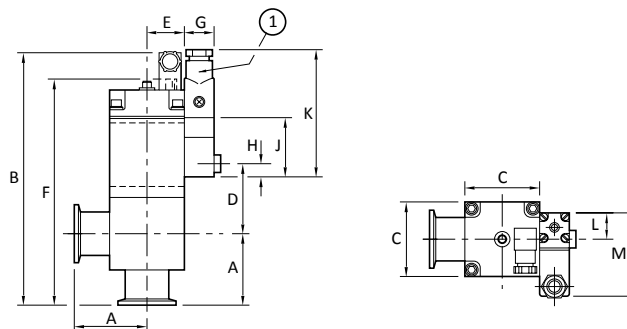
They are available with aluminium or stainless steel bodies with either O-ring (shaft seal Aluminium only) or bellows seal.

The valves are designed for long life duties, with a MTTF of 5,000,000 cycles for both bellows and 'O' ring sealed versions providing long intervals between services.

Features and benefits

- Improved lifetime, mean-time-to-failure now 5,000,000 cycles.
- Electrical and visual indication of valve status.
- Fast acting – 20 ms to close (PV16).
- Available in aluminium or stainless steel.
- Choice of bellows or 'O' ring shaft sealing with aluminium bodies.

PVPK Dimension



| | A | B | C | D | E | F | G | H | J | K | L | M |
|--------|----|-------|------|------|----|-------|----|----|----|----|----|----|
| PV10PK | 30 | 139.5 | 38 | 41 | 25 | 122 | 20 | 10 | 40 | 88 | 19 | 59 |
| PV16PK | 40 | 149.5 | 38 | 41 | 25 | 132 | 20 | 10 | 40 | 88 | 19 | 59 |
| PV25PK | 50 | 171.3 | 50.8 | 47.6 | 28 | 153.7 | 20 | 10 | 40 | 88 | 19 | 59 |
| PV40PK | 65 | 200.6 | 76.2 | 57.8 | 41 | 183 | 20 | 10 | 40 | 88 | 19 | 59 |
| PV50PK | 70 | 218 | 92 | 70 | 41 | 200 | 20 | 10 | 40 | 88 | 19 | 59 |

① Optional control valve

Technical Data

| PVPK | |
|-------------------------------|--------------------------------------------------------------------------------------------|
| Valve actuation type | Single acting, pneumatically opened, spring closed |
| Pressure range | 1 x 10 ⁻⁹ to 2100 mbar/8 x 10 ⁻¹⁰ to 1575 Torr |
| Max pressure differential | |
| Opening | 1000 mbar/750 Torr |
| Closing | 2100 mbar/1575 Torr |
| Leak rate | < 1 x 10 ⁻⁹ mbar ls ⁻¹ / $< 8 \times 10^{-10}$ Torr ls ⁻¹ |
| Pneumatic connector | Rp 1/8 (1/8 inch BSP) * |
| Pneumatic operating pressure | 2.8 to 4.2 bar/41 to 61 psi |
| Electrical indicator | Single microswitch ‡ |
| Microswitch electrical rating | 24 V, 1.5 A a.c. or d.c. |
| Max cycle frequency | 900 h ⁻¹ |
| Bellows reliability, MTTF | 5,000,000 cycles |
| Ambient operating temp | 5-100 °C |
| Maximum baking temp | 100 °C |
| Construction materials | |
| PVPKA | HE30TF aluminium |
| PVPKS | AISI304 stainless steel |
| Bellows | AISI316L stainless steel |
| O-ring | Fluoroelastomer |

* With optional control valve fitted

| PVPK | | |
|-------------------------------------------|--------------------|---------------------|
| Molecular conductance (ls ⁻¹) | Right angled | |
| PV10PK | 3 | |
| PV16PK | 4 | |
| PV25PK | 10 | |
| PV40PK | 40 | |
| PV50PK | 50 | |
| | Time to open (ms)* | Time to close (ms)* |
| PV10/16PK | 60 | 20 |
| PV25PK | 15 | 41 |
| PV40PK | 50 | 155 |
| PV50PK | 50 | 155 |
| Weight | Aluminium | Stainless Steel |
| PV16PK | 310 g/10.9 oz | 520 g/18.2 oz |
| PV25PK | 610 g/21.4 oz | 980 g/34.3 oz |
| PV40PK | 1500 g/52.5 oz | 2300 g/80.5 oz |
| PV50PK | 2000 g/70.5 oz | 4000 g/140 oz |

PVPK

Ordering information

| Product description | Order no: |
|------------------------------------------|-----------|
| PV10PKAO, O-ring sealed, aluminium | C41113000 |
| PV10PKA, bellows sealed, aluminium | C41111000 |
| PV16PKAO, O-ring sealed, aluminium | C41213000 |
| PV16PKA, bellows sealed, aluminium | C41211000 |
| PV16PKS, bellows sealed, stainless steel | C41215000 |
| PV25PKAO, O-ring sealed, aluminium | C41313000 |
| PV25PKA, bellows sealed, aluminium | C41311000 |
| PV25PKS, bellows sealed, stainless steel | C41315000 |
| PV40PKAO, O-ring sealed, aluminium | C41413000 |
| PV40PKA, bellows sealed, aluminium | C41411000 |
| PV40PKS, bellows sealed, stainless steel | C41415000 |
| PV50PKA, bellows sealed, aluminium | C41510000 |
| PV50PKS, bellows sealed, stainless steel | C41515000 |

Spares Kit Valve Seals

| Product description | Order no: |
|----------------------------------|-----------|
| Spares Kit Valve Seals PVPK10/16 | C41111800 |
| Spares Kit Valve Seals PV25PK | C41311800 |
| Spares Kit Valve Seals PV40PK | C41411800 |

O-Ring kit

| Product description | Order no: |
|---------------------|-----------|
| PV50MK O-Ring kit | C41501800 |

Top Cap Assembly

| Product description | Order no: |
|---------------------------|-----------|
| Top Cap Assembly PV10/16P | C41111821 |
| Top Cap Assy PV25P | C41311821 |
| Top Cap Assembly PV40P | C41411821 |

Actuator

| Product description | Order no: |
|--------------------------------|-----------|
| PV10P O Ring Actuator Assembly | C41113035 |
| PV25P O Ring Actuator Assembly | C41313035 |
| PV40P O Ring Actuator Assembly | C41413035 |
| Bellows Actuator Assy PV10P | C41111035 |
| Bellows Actuator Assy PV25P | C41311035 |
| Bellows Actuator Assy PV50P | C41515035 |
| Bellows Actuator Assy PV40P | C41411035 |



Valve body

| Product description | Order no: |
|---------------------|-----------|
| Valve body PV10KA | C41101816 |
| Valve body PV16KA | C41201816 |
| Valve body PV16KS | C41602801 |
| Valve body PV25KA | C41301816 |
| Valve body PV25KS | C41622801 |
| Valve body PV40KA | C41401816 |
| Valve body PV40KS | C41642801 |
| Valve body PV50KA | C41662816 |
| Valve body PV50KS | C41662801 |

Electropneumatic Control Valve

| Product description | Order no: |
|--------------------------------------------------|-----------|
| 3 Port Electropneumatic Control Valve 24 V d.c. | H06200124 |
| 3 Port Electropneumatic Control Valve 24 V a.c. | H06200125 |
| 3 Port Electropneumatic Control Valve 110 V a.c. | H06200126 |
| 3 Port Electropneumatic Control Valve 230 V a.c. | H06200138 |

