

PVPK Pneumatic Operation Right Angle Isolation Valve



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.

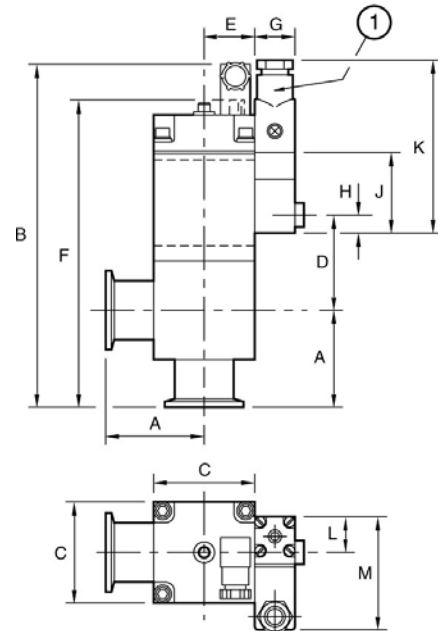
The valves are designed for long life duties, with a MTTF of 5000000 cycles for both bellows and 'O' ring sealed versions providing long intervals between services.



Features & Benefits

- Improved lifetime, mean-time-to-failure now 5000000 cycles
- Electrical and visual indication of valve status
- Fast acting - 20 ms to close (PV16)
- Available in aluminum or stainless steel
- Choice of bellows or 'O' ring shaft sealing with aluminum bodies

Dimensions



	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

Valve actuation type	Single acting, pneumatically opened, spring closed
Pressure range	1×10^{-9} to 2100 mbar / 8×10^{-10} to 1575 Torr
Max pressure differential	
Opening	1000 mbar / 750 Torr
Closing	2100 mbar / 1575 Torr
Leak rate	$< 1 \times 10^{-9}$ 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	5000000 cycles
Ambient operating temp	5 - 100 °C
Maximum baking temp	100 °C

Construction materials

VVPKA	HE30TF aluminium
VVPKS	AISI304 stainless steel
Bellows	AISI316L stainless steel
O-ring	Fluoroelastomer

Molecular conductance (ls⁻¹) Right angled

PV10PK	3
PV16PK	4
PV25PK	10
PV40PK	40
PV50PK	50

‡ Twin microswitch versions are available on request.

	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	310g / 10.9oz	520g / 18.2oz
PV25PK	610g / 21.4oz	980g / 34.3oz
PV40PK	1500g / 52.5oz	2300g / 80.5oz
PV50PK	2000g / 70.5oz	4000g / 140oz

* With optional control valve fitted

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
Accessories & Spares	Order No.
Spares Kit Valve Seals VVPK10/16	C41111800
Spares Kit Valve Seals PV25PK	C41311800
Spares Kit Valve Seals PV40PK	C41411800
PV50MK O-Ring kit	C41501800
Top Cap Assembly PV10/16P	C41111821
Top Cap Assy PV25P	C41311821
Top Cap Assembly PV40P	C41411821
PV10PO Ring Actuator Assembly	C41113035
Bellows Actuator Assy PV10P	C41111035
PV25PO Ring Actuator Assembly	C41313035
Bellows Actuator Assy PV25P	C41311035
O Ring Actuator Assy PV40P	C41413035
Bellows Actuator Assy PV240P	C41411035
Bellows Actuator Assy PV50P	C41515035
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
3 Port Electropneumatic Control Valve 24V d.c.	H06200124
3 Port Electropneumatic Control Valve 24V a.c.	H06200125
3 Port Electropneumatic Control Valve 110V a.c.	H06200126
3 Port Electropneumatic Control Valve 230V a.c.	H06200138

IPVPK Pneumatic Operation In-Line Isolation valves



The Edwards range of in-line single acting cylinder, spring return pipeline valves are designed for high speed actuation from standard pneumatic lines, and are offered in sizes NW16, 25, 40 and 50. They are available with aluminium or stainless steel bodies with either O-ring (shaft seal, aluminium only) or bellows sealed.

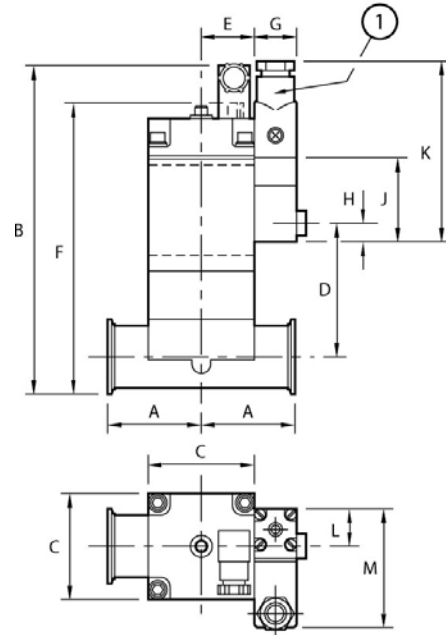
The valves are designed for long life duties, with a MTTF of 5000000 cycles for both bellows and 'O' ring sealed versions providing long intervals between services.



Features & Benefits

- Improved lifetime, mean-time-to-failure now 5000000 cycles
- Electrical and visual indication of valve status
- Fast acting - 20 ms to close (PV16)
- Available in aluminum or stainless steel
- Choice of bellows or 'O' ring shaft sealing with aluminum bodies

Dimensions



	A	B	C	D	E	F	G	H	J	K	L	M
PV16PK	40	132.9	38	49.4	22.9	115.4	20	10	40	88	19	59
PV25PK	50	161.9	50.8	68.2	25.8	144.3	20	10	40	88	19	59
PV40PK	65	192.2	76.2	86.9	38.2	174.6	20	10	40	88	19	59
PV50PK	70	216.9	92	101.6	38.8	199.3	20	10	40	88	19	59

1 Optional control valve

Technical Data

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			
Maximum pressure differential	1000 mbar / 750 Torr			
Opening	2100 mbar / 1575 Torr			
Closing	2100 mbar / 1575 Torr			
Leak rate	< 1 x 10 ⁻⁹ mbar ls ⁻¹ / < 8 x 10 ⁻¹⁰ Torr ls ⁻¹			
Pneumatic connector	Rp 1/8 (1/8 inch BSP) *			
Recommended 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	5000000 cycles			
Ambient operating temperature	5 - 100 °C			
Maximum baking temperature	100 °C			
Construction materials				
IPVPKA	HE30TF aluminum			
IPVPKS	AISI304 stainless steel			
Bellows	AISI316L stainless steel			
O-ring	Fluoroelastomer			

‡ Twin microswitch versions are available on request.

	IPV16P K	IPV25P K	IPV40PK	IPV50PK
Molecular conductance (ls ⁻¹)	2	6	18	30
Time to open (ms)*	60	15	50	50
Time to close (ms)*	20	41	155	155
Weight				
Aluminium	310 / 10.9	610 / 21.4	1500 / 52.5	-
Stainless Steel	520 / 18.2	980 / 34.3	2300 / 80.5	4000 / 140

* With optional control valve fitted

Ordering Information

Product Description	Order No.
IPV16PKAO, O-ring sealed, aluminium	C41603000
IPV16PKA, bellows sealed, aluminium	C41601000
IPV16PKS, bellows sealed, stainless steel	C41602000
IPV25PKAO, O-ring sealed, aluminium	C41623000
IPV25PKA, bellows sealed, aluminium	C41621000
IPV25PKS, bellows sealed, stainless steel	C41622000
IPV40PKAO, O-ring sealed, aluminium	C41643000
IPV40PKA, bellows sealed, aluminium	C41641000
IPV40PKS, bellows sealed, stainless steel	C41642000
IPV50PKS, bellows sealed, stainless steel	C41662000
Accessories & Spares	Order No.
Spares Kit Valve Seals PVPK10/16	C41111800
Spares Kit Valve Seals PV25PK	C41311800
Spares Kit Valve Seals PV40PK	C41411800
PV50MK O-Ring kit	C41501800
Top Cap Assembly PV10/16P	C41111821
Top Cap Assy PV25P	C41311821
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PV10PO Ring Actuator Assembly	C41113035
Bellows Actuator Assy PV10P	C41111035
PV25PO Ring Actuator Assembly	C41313035
Bellows Actuator Assy PV25P	C41311035
O Ring Actuator Assy PV40P	C41413035
Bellows Actuator Assy PV240P	C41411035
Bellows Actuator Assy PV50P	C41515035
Valve body IPV16PKA	C41601802
Valve Body IPV16KS	C41602811
Valve Body IPV25KA	C41621802
Valve Body IPV25KS	C41622811
Valve Body IPV40KA	C41641802
Valve Body IPV40KS	C41642811
Valve body IPV50KS	C41662811
3 Port Electropneumatic Control Valve 24V d.c.	H06200124
3 Port Electropneumatic Control Valve 24V a.c.	H06200125
3 Port Electropneumatic Control Valve 110V a.c.	H06200126
3 Port Electropneumatic Control Valve 230V a.c.	H06200138