

PVEK SOLENOID OPERATION RIGHT ANGLE ISOLATION VALVES



The Edwards PVEK series valves are compact, light-weight electromagnetic vacuum valves suitable for use in vacuum pipeline systems down to 1×10^{-9} mbar. A double wound coil combined with an electronic switching circuit ensures low energy consumption, low operating temperatures and extended operating life.

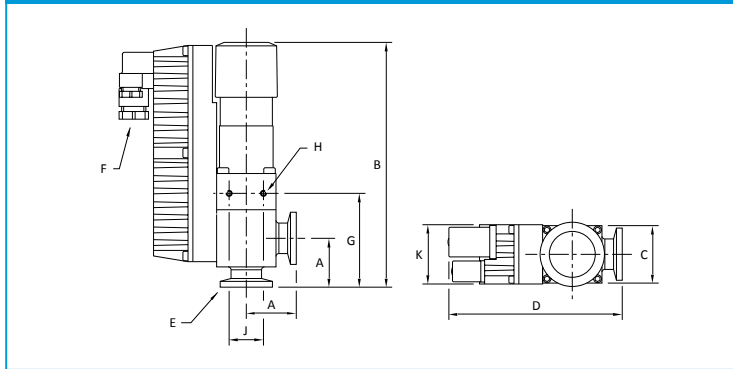
Bellows sealed, the PVEK solenoid operated right angle valves are available with either aluminium (A) or stainless steel (S) bodies, with an overall MTTF of up to 500,000 cycles.

Features and benefits

- Transient high power for opening – electronically switched.
- Low energy consumption in the 'hold open' position.
- Enclosure rating to IP55.
- Grease free vacuum.
- MTTF up to 500000 cycles.



PVEK Dimension



mm (inches)	A	B	C	D	E	G	H	J	K
PV10EK	30 (1.17)	150 (5.85)	38 (1.48)	116 (4.52)	NW10	59 (2.3)	M4 x 7	20 (0.78)	41 (1.6)
PV16EK	40 (1.56)	160 (6.24)	38 (1.48)	126 (4.91)	NW16	69 (2.69)	M4 x 7	20 (0.78)	41 (1.6)
PV25EK	50 (1.95)	182 (7.1)	51 (1.99)	142 (5.54)	NW25	82 (3.2)	M4 x 7	20 (0.78)	41 (1.6)
PV40EK	65 (2.54)	230 (8.97)	76 (2.96)	170 (6.63)	NW40	110 (4.29)	M6 x 9	40 (1.56)	41 (1.6)

Technical Data

PVEK		
Valve actuation type	Single acting, electrically opened, spring closed	
Pressure range valve open	1 x 10 ⁻⁹ to 2000 mbar 7.5 x 10 ⁻¹⁰ to 1500 Torr (30 psi)	
Maximum press differential		
Opening/closing	1000 mbar/750 Torr	
Leak rate	< 1 x 10 ⁻⁹ mbar ls ⁻¹ < 7.5 x 10 ⁻¹⁰ Torr ls ⁻¹	
Reed switch (peak ratings)		
Maximum voltage	24 V a.c. or d.c.	
Maximum current	0.25 A	
Maximum power	3 VA	
Maximum cycle frequency	400 h ⁻¹	
Ambient operating temperature		
PV10/16	5 °C to 45 °C	
PV25/40	5 °C to 50 °C	
Valve temperature above ambient		
Rapid cycling		
PV10/16	< 25 °C	
PV25/40	< 20 °C	
Valve open	< 10 °C	
Bellows reliability MTTF		
PV10/16	500000 cycles	
PV25/40	130000 cycles	
Construction materials		
PVEKA	HE30TF aluminium	
PVEKS	AISI304 stainless steel	
Bellows	AISI316L stainless steel	
O-ring	Fluoroelastomer	
Weight (g/oz)	Aluminium	Stainless Steel
PV10EKA	800 g / 28.1 oz	900 g / 28.5 oz
PV16EKA	800 g / 28.1 oz	1200 g / 41.2 oz
PV25EKA	1800 g / 63.3 oz	2400 g / 84.4 oz
PV40EKA	4500 g / 158.2 oz	6400 g / 225 oz

Molecular conductance (ls⁻¹)

PV10EKA	3
PV16EKA	4
PV25EKA	10
PV40EKA	34

PVEK

Ordering information



Product description	Order no:
PV10EKA, 110-127 V 1-ph 50/60 Hz, aluminium	C41103000
PV10EKA, 220-240 V 1-ph 50/60 Hz, aluminium	C41101000
PV16EKA, 110-127 V 1-ph 50/60 Hz, aluminium	C41203000
PV16EKA, 220-240 V 1-ph 50/60 Hz, aluminium	C41201000
PV16EKS, 110-127 V 1-ph 50/60 Hz, stainless steel	C41204000
PV16EKS, 220-240 V 1-ph 50/60 Hz, stainless steel	C41202000
PV25EKA, 110-127 V 1-ph 50/60 Hz, aluminium	C41303000
PV25EKA, 220-240 V 1-ph 50/60 Hz, aluminium	C41301000
PV25EKS, 110-127 V 1-ph 50/60 Hz, stainless steel	C41304000
PV25EKS, 220-240 V 1-ph 50/60 Hz, stainless steel	C41302000
PV40EKA, 110-127 V 1-ph 50/60 Hz, aluminium	C41403000
PV40EKA, 220-240 V 1-ph 50/60 Hz, aluminium	C41401000
PV40EKS, 110-127 V 1-ph 50/60 Hz, stainless steel	C41404000
PV40EKS, 220-240 V 1-ph 50/60 Hz, stainless steel	C41402000

O-Ring Kit

Product description	Order no:
PV10/16MK O-Ring Kit	C41101800
Spares Kit Pad & Body O-ring PV25EK	C41301800
PV40MK O-Ring kit	C41401800

Moving Pole Assy

Product description	Order no:
Moving Pole Assy PV10E	C41101007
Moving Pole Assy PV25EK	C41301007
Moving Pole Assy PV40E	C41401007

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

