

# IPVEK Solenoid Operation Isolation Valves

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

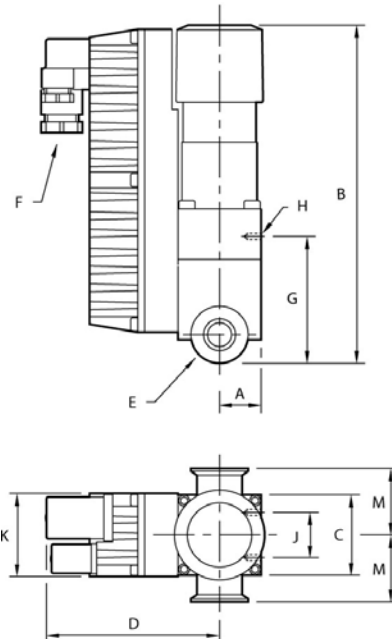
Bellows sealed, the PVEK solenoid operated valves are available with either aluminum (A) or stainless steel (S) bodies, and in right-angle (PVEK) and in-line (IPVEK) versions, with an overall MTTF of up to 500,000 cycles.



## Features & 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

## Dimensions



	A	B	C	D	E	G	H	J	K	M
mm	19	142.9	38	85	NW16	37.4	M4 x 7	20	41	40
inches	0.7	5.57	1.48	3.32	NW16	1.46	M4 x 7	0.78	1.6	1.56

F Connectors for electrical supply and reed switch cables

## Technical Data

Valve actuation type	Single acting, electrically opened, spring closed
Pressure range valve open	$1 \times 10^{-9}$ to 2000 mbar / $7.5 \times 10^{-10}$ to 1500 Torr (30 psi)
Maximum press differential	
Opening/closing	1000 mbar / 750 Torr
Leak rate	$< 1 \times 10^{-9}$ mbar l s <sup>-1</sup> / $< 7.5 \times 10^{-10}$ Torr l s <sup>-1</sup>
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 <sup>-1</sup>
Ambient operating temperature	5 °C to 45 °C
Valve temperature above ambient	

## Ordering Information

Product Description	Order No.
IPV16EKA, 220-240V, 1-ph 50/60Hz, aluminium	C41610000
IPV16EKA, 110-127V 1-ph 50/60Hz, aluminium	C41611000
IPV16EKS, 220-240V 1-ph 50/60Hz, stainless steel	C41612000
IPV16EKS, 110-127V 1-ph 50/60Hz, stainless steel	C41613000
IPV25EKA, 220-240V 1-ph 50/60Hz, aluminium	C41630000
IPV25EKA, 110-127V 1-ph 50/60Hz, aluminium	C41631000
IPV25EKS, 220-240V 1-ph 50/60Hz, stainless steel	C41632000

Rapid cycling	<25 °C	IPV25EKS, 110-127V 1-ph 50/60Hz, stainless steel	C41633000
Valve open	<10 °C		
Bellows reliability MTTF	500000 cycles	IPV40EKA, 220-240V 1-ph 50/60Hz, aluminium	C41651000
Construction materials			
IPVEKA	HE30TF aluminum	IPV40EKA, 110-127V 1-ph 50/60Hz, aluminium	C41652000
Bellows	AISI316L stainless steel		
O-ring	Fluoroelastomer	IPV40EKS, 220-240V 1-ph 50/60Hz, stainless steel	C41653000
Molecular conductance (l s <sup>-1</sup> )	2		
Time to open (ms)	40	IPV40EKS, 110-127V 1-ph 50/60Hz, stainless steel	C41654000
Time to close (ms)	100		
Operating power (VA)			
220 V a.c. at 25 °C pulse	417		
220 V a.c. at 25 °C hold	4.7		
Maximum continuous power 220 V a.c. rms (W)	4.5		
Weight (g/oz)	800/28		

Accessories & Spares	Order No.
IEC plug to mating socket for PVEK valves	C41101090
PV10/16MK O-Ring Kit	C41101800
PV40MK O-Ring kit	C41401800
Valve Body IPV16KS	C41602811
Valve Body IPV25Ka	C41621802
Valve Body IPV25KS	C41622811
Valve Body IPV40KA	C41641802
Valve Body IPV40KS	C41642811
Valve body PV16KA	C41201816
Body IPV16PK	C41601802
Spares Kit Pad & Body O-ring PV25EK	C41301800
Moving Pole Assy PV10E	C41101007
Moving Pole Assy PV25EK	C41301007
Moving Pole Assy PV40E	C41401007
Spare PCA 240 V for PVEK	C41401806
Spare PCA 110 V for PVEK	C41401805
Spare PCA 110V, for PVEK	C41301805
Spare PCA 230V for PVEK	C41301806
Spare PCA 110V for PVEK valve	C41101805
Spare PCA 240V for PVEK	C41101806