

AV5A Air Admittance Valve With Couplings

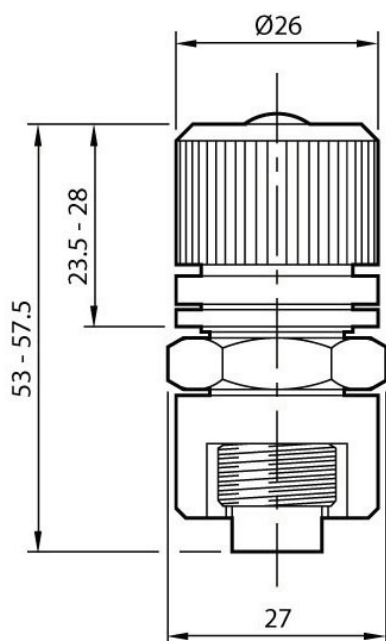


The AV5A is manufactured in aluminum alloy. It has a control knob attached to a screw-actuated plunger: turn the control knob clockwise to close the valve. A nitrile 'O' ring seals the plunger to the valve body.

The valve can be connected directly, pipeline supported or panel mounted, and is connected to the vacuum system with the Edwards SC5 coupling (supplied).



Dimensions



Technical Data

Materials of construction	
Body	HE30 aluminum / nickel plated brass
Plunger	HE30 aluminum
Seal	Nitrile
Leak rate across seat	10^{-7} mbar ls ⁻¹ / 8×10^{-8} Torr ls ⁻¹
Leak rate through body	10^{-1} mbar ls ⁻¹ / 8×10^{-2} Torr ls ⁻¹
Panel mounting	Ø 17 mm / Ø 0.66 in hole, 3 mm / 0.117 in maximum thickness
Vacuum connections	SC5 couplings or 3/8 inch BSP threaded body and bonded seal
Weight	85 g / 3 oz

Ordering Information

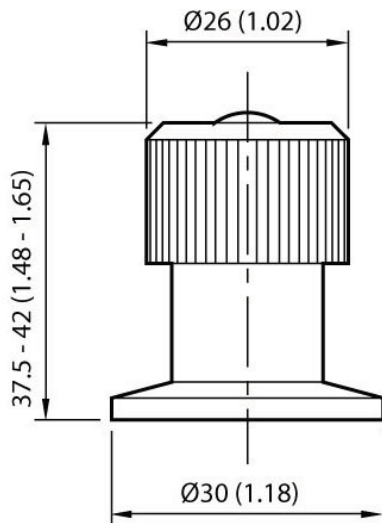
Product Description	Order No.
AV5A Air Admittance Valve With Couplings	C35003000
Accessories & Spares	Order No.
O Ring Nitrile Vor 2A Pk 10	H02105115
Dowty Seal 3/8 BSP MkC	H02104003



The AV10K is manufactured in aluminum alloy. It has a control knob attached to a screw-actuated plunger: turn the control knob clockwise to close the valve. A nitrile 'O' ring seals the plunger to the valve body.

The valve can be pipeline supported only, and is connected to the vacuum system with an NW10 fitting.

Dimensions



Technical Data

Materials of construction

Body	HE30 aluminum
Control knob	Nylon 6
Seal	Nitrile
Leak rate across seat	10^{-7} mbar ls ⁻¹ / 8×10^{-8} Torr ls ⁻¹
Leak rate through body	10^{-1} mbar ls ⁻¹ / 8×10^{-2} Torr ls ⁻¹
Vacuum connections	NW10
Weight	100 g / 3.5 oz

Ordering Information

Product description	order no.
AV10K Air Admittance Valve	C35103000
Accessories Spares	order no.
O Ring Nitrile Vor 2A Pk 10	H02105115

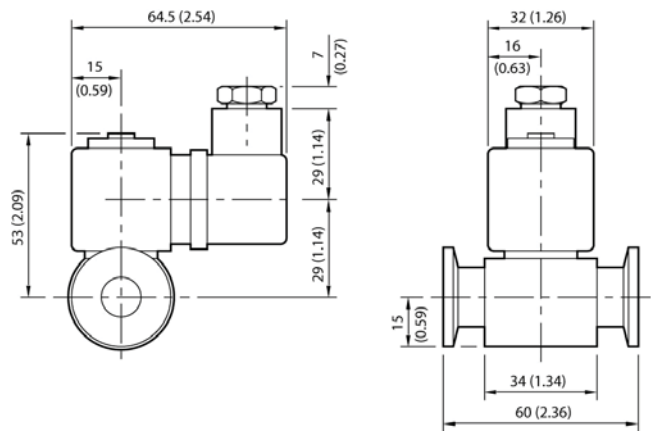
The IPVA10EK is a solenoid operated valve designed for automatic admittance of air or vent gas into a vacuum system. The valve has two ports with NW flanges. One of the valve ports is connected to the vacuum system, the other port can be left open to atmosphere or connected to a vent gas supply. The vacuum system is isolated from atmosphere (or the vent gas supply) by a fluoroelastomer pad on the base of the valve plunger, which seals against the body of the valve.



Features & Benefits

- Normally open or normally closed option.
- Small envelope
- IP65 protection
- MTTF 100000 Cycles

Dimensions



5
Page
195

Technical Data

Operating temperature range	-20 to 55 °C
Vent gas temperature range	-10 to 130 °C
Venting rate	10 litres in 12 s
Response time	30 ms
Maximum cycle frequency	100 min ⁻¹
Reliability (MTTF)	10 ⁵ cycles
Leak rate	1 x 10 ⁻⁹ mbar ls ⁻¹ / 8 x 10 ⁻¹⁰ Torr ls ⁻¹
Electrical supply	110V or 240V a.c. 1-ph, 50/60 Hz or 24V d.c.
Tolerance	
a.c.	-10% to 10%
d.c.	-5% to 10%
Power	
a.c.	9.3 VA inrush 6.3 VA hold
d.c.	5W
Enclosure rating	IP65
Weight	310 g / 11 oz
Materials of construction	
Body	Aluminium
Valve seal	Fluoroelastomer
Actuator	Stainless steel
Coil insulation	Class F

Ordering Information

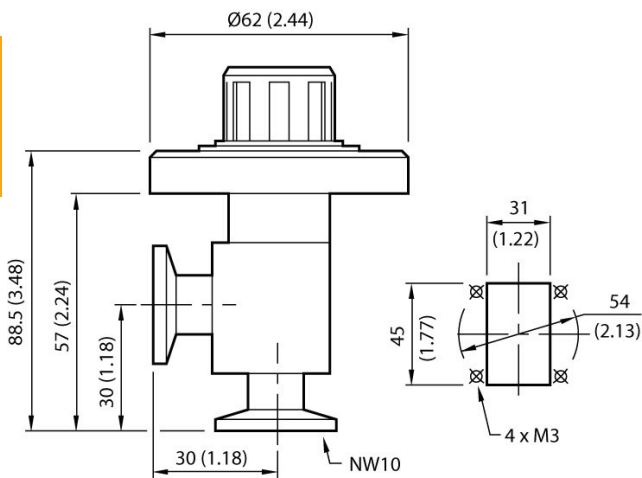
Product description	Order no.
IPVA10EK, 240 V a.c. (normally open)	C41721000
IPVA10EK, 110 V a.c. (normally open)	C41722000
IPVA10EK, 24 V d.c. (normally open)	C41723000
IPVA10EK, 240 V a.c. (normally closed)	C41731000
IPVA10EK, 110 V a.c. (normally closed)	C41732000
IPVA10EK, 24 V d.c. (normally closed)	C41733000

The air or vent gas path through the valve is free from heavy metals.



The LV10K needle valve provides fine control of gas bleed into a vacuum chamber or a regulated leak to control pressure in a vacuum system and is suitable for gas admission down to 10^{-5} mbar / 8×10^{-6} Torr. Suitable for pipeline or panel mounting.

Dimensions



Technical Data

Materials of construction

Body	Aluminium HE30
Seat	Brass BS2784 C2112
Needle	Martensitic stainless steel EN56AM
Filter	Brass BS249
Max flow rate (approx)*	0.1 ls^{-1}
Max inlet pressure	2000 mbar / 1500 Torr
Max leak rate, across seat	$10^{-7} \text{ mbar ls}^{-1} / 8 \times 10^{-8} \text{ Torr ls}^{-1}$
Max leak rate, across body	$10^{-7} \text{ mbar ls}^{-1} / 8 \times 10^{-8} \text{ Torr ls}^{-1}$
Vacuum connection	NW10
Weight (g/oz)	138 g / 4.8 oz

* Flow rate relates to a pressure differential across valve of one bar.

Ordering Information

Product description	order no.
LV10K Leak Valve NW10 Flanges	C37102000
Accessories Spares	order no.
Spares Kit Valve Seat	C37102812

Electropneumatic control valve

Electropneumatic control valves can be used to control the operation of pneumatically activated vacuum valves. Control valves are available with different electrical supply voltages and frequencies to suit your application.



Dimensions

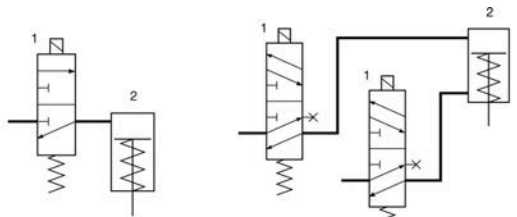


Figure 1 - Pneumatic circuit for 3-port control valve

Figure 2 - Pneumatic circuit for two 5-port lightweight control valves

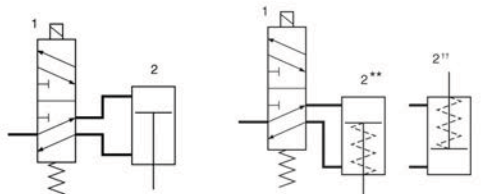


Figure 3 - Pneumatic circuit for 5-port lightweight control valve

Figure 4 - Pneumatic circuit for 5-port control valve

Ordering Information

Product description	Order no.
3-Port, 24V d.c., 1/8 Inch BSP	H06200124
3-Port, 24 V a.c., 50/60 Hz, 1/8 Inch BSP	H06200125
3-Port, 48 V d.c., 1/8 Inch BSP, North America	H06200130
3-Port, 110 V a.c., 50/60 Hz, 1/8 Inch BSP	H06200126
3-Port, 230 V a.c., 50/60 Hz, 1/8 Inch BSP	H06200138
5-Port, 24 V d.c., 6mm BSP	B28703055
5-Port, 24 V a.c., 50/60 Hz, 6mm BSP	B28703030
5-Port, 110 V a.c., 50/60 Hz, 6mm BSP	B28703031
5-Port, 230 V a.c., 50/60 Hz, 6mm BSP	B28703032

Technical Data

Valve	Valve type	Recommended control valve configuration	Schematic
GV gate valves	Double-acting cylinder with no spring return	1 x 5-port	3
PVPK pipeline valves soft start	Single-acting cylinder with spring return	1 x 3-port	1
BRV backing/roughing valve	Double-acting cylinder with spring return to the mid-position (that is, isolated position)	2 x 5-port or (1 x 5-port)	2*(4)
QSB63/100/160 quarter swing butterfly valves, Diffstak isolation-valves	Double-acting cylinder with no spring return	1 x 5-port	4
Supply pressure	3 port	5 port	
bar gauge	2.1 - 8	3.4 - 4.8	
Psig	30 - 115	50 - 70	

* This configuration allows the use of the isolated position of the vacuum valve.

This configuration only allows the use of the roughing and backing positions of the vacuum valve.