



SERIES AP 72

VACUUM GENERATOR MODULE

Venturi — Shut off valve — Check valve

- Monoblock vacuum venturi, diaphragm valve and check valve
- Compact design
- Manual or pneumatic actuation options
- Constant bleed option 5, 8 and 15 slpm of N2 @ 80 psig (5.5 bar)
- 26 in. Hg (100 Torr) of vacuum generated with 80 psig (5.5 bar) and 60 slpm of N2
- Low N2 flow option; AP 72L nominal 20 slpm at 80 psig N2
- Stainless steel 316L VAR secondary remelt construction

Operating Parameters

N2 inlet	70 to 110 psig (4.8 to 7.6 bar)
N2 flow @ 80psig	AP 72 60 slpm; AP 72L 20 slpm
Vacuum port maximum pressure	3,000 psig (207 bar)
Vacuum*	26 inch Hg (100 Torr)
Check valve cracking pressure**	3 psid (0.2 bar) (differential)
Constant bleed (opt) CB009	2-5 slpm N2 @ 80 psig (5.5 bar)
(opt) CB013	5-8 slpm N2 @ 80 psig (5.5 bar)
(opt) CB023	10-15 slpm N2 @ 80 psig (5.5 bar)
Inboard leakage	2 x 10 ⁻¹⁰ sccs
Outboard leakage	2 x 10 ⁻⁹ sccs He at 250 psig inlet pressure
Leakage across seat	4 x 10 ⁻⁸ sccs He at 250 psig inlet pressure***
Proof pressure, applied to vacuum port	150% of operating pressure
Burst pressure, applied to vacuum port	300% of operating pressure
Operating temperature	14° to 160°F (-10° to 71°C)

* Vacuum specifications are based on a 3/89 vent line of 309 overall length.
 ** Cracking pressure is a nominal value which may vary in specific applications.
 *** 125 psig inlet pressure for AP 72540.

Other Parameters

Inlet port fitting	1/4 inch face seal male or female
Vent port fitting	1/4 inch, 3/8 inch face seal or 3/8 inch tube stub
Vacuum port fitting	1/4 inch face seal or tube weld

Other Parameters – AP 72540 and AP 72550

Valve status	Normally Closed (NC)
Actuation port AP 72540	1/8 inch NPT (TOP)
AP 72550	10-32 (SIDE)
Actuation pressure	70 to 110 psig (4.8 to 7.6 bar)
Pressure rating AP 72540VS	vacuum to 125 psig (9 bar)
AP 72540	vacuum to 145 psig (10 bar)
AP 72550	vacuum to 250 psig (17 bar)

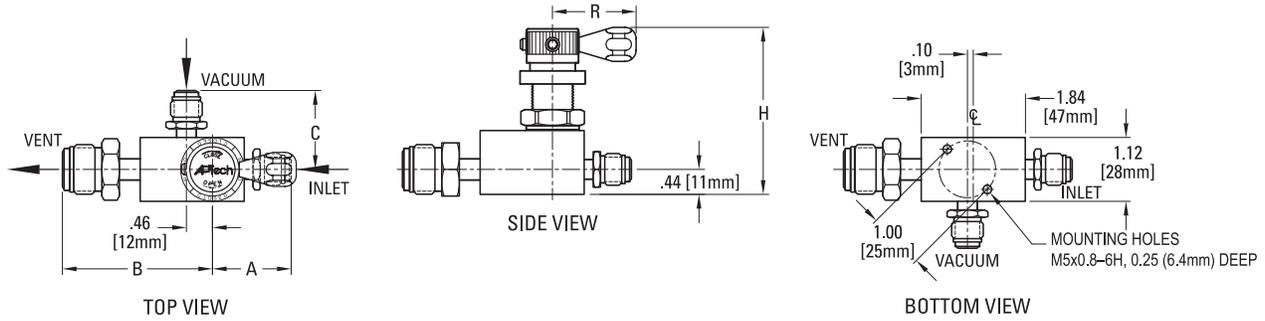
Materials and Actuation Options

Actuation Options (Valve type)		Materials	
72625 and 72L625	1/4 turn lever (3625)	Wetted Parts	Series AP 72 S & AP 72L S
72540 and 72L540	Pneumatic NC (3540)	Body	SS 316L secondary remelt
72550 and 72L550	Pneumatic NC (3550)	Finish	electropolished and passivated
72650 and 72L650	1/4 turn knob (3650)	Diaphragm	Ni-Co alloy / UNS R30003
72600 and 72L600	Multi-turn knob (3600)	Seat	PCTFE (Polyimide optional)
		Check Valve Seal	Fluoroelastomer / FKM (optional seal available)

All specifications subject to change without notice.

THE ULTIMATE VACUUM SOLUTION

DIMENSIONAL INFORMATION

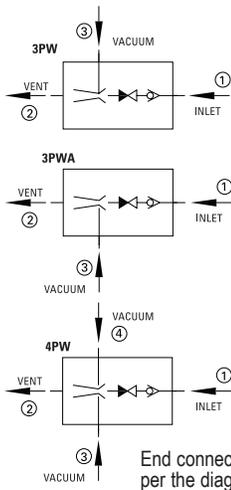


Model	Actuator Radius, R		Height, H	
	in	mm	in	mm
	[±.01]	[±.3]	[±.10]	[±3.0]
AP72540	.73	18.5	3.49	88.6
AP72550	.69	17.4	3.28	83.3
AP72600	1.06	26.9	3.00	76.2
AP72625	1.48	37.6	2.94	74.7
AP72650	.94	23.9	3.02	76.7

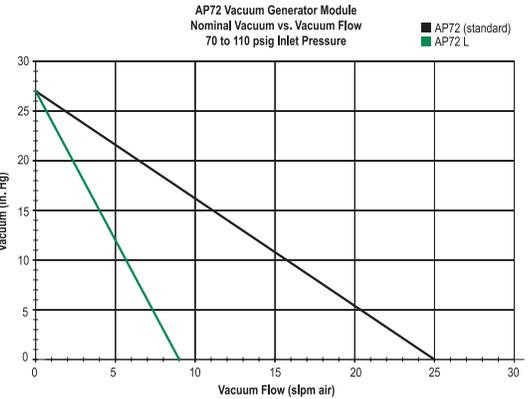
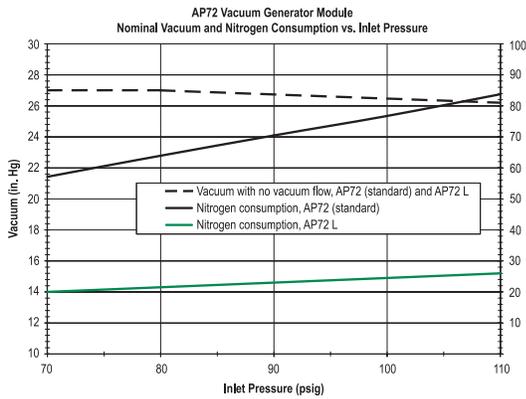
Connections	A		B		C	
	in [±.01]	mm [±.3]	in [±.01]	mm [±.3]	in [±.01]	mm [±.3]
MV4, FV4	1.39	35.3	2.11*	53.6*	1.39	35.3
TW4	-	-	-	-	1.06	26.9
FV6, MV6	-	-	2.65	67.4	-	-
TW6	-	-	2.05	52.0	-	-

All dimensions in inches (mm). Metric dimensions are for reference only.
 * High flow 1/4" face seal fittings.

AP72 SERIES PORTING GUIDE
 TOP VIEW SHOWN



End connections are specified in numerical order per the diagram's numbered arrows.



AP Tech has product options and variations which are not documented in data sheets. If you have a model number that is not defined by the ordering information, please consult the factory or your local representative.

PORTING CONFIGURATIONS

ORDERING INFORMATION

Sample Order Number **AP 72625S 3PW MV4 FV6 TW4 CB009**

AP 72 | Series

AP 72 = Standard N2 flow
 AP 72L = Low N2 flow option

625 | Type

625 = 1/4 turn lever
 540 = Pneumatic NC
 550 = Pneumatic NC
 650 = 1/4 turn knob
 600 = Multi-turn knob

S | Material

S = Stainless steel (SS)

3PW | Porting

Refer to porting configuration above for selection

3PW = 3 Port
 3PWA = 3 Port
 4PW = 4 Port

MV4 | N2 Inlet

MV4 = 1/4 inch face seal male
 FV4 = 1/4 inch face seal female

FV6 | Vent

MV4 = 1/4 inch face seal male
 FV4 = 1/4 inch face seal female
 MV6 = 3/8 inch face seal male
 FV6 = 3/8 inch face seal female
 TW6 = 3/8 inch tube weld stub

TW4 | Vacuum

MV4 = 1/4 inch face seal male
 FV4 = 1/4 inch face seal female
 TW4 = 1/4 inch tube weld stub

CB009 | Options

CB009 = 5 slpm constant bleed
 CB013 = 8 slpm constant bleed
 CB023 = 15 slpm constant bleed
 VS = Polyimide seat
 NP = Neoprene/polychloroprene check valve seal
 SC = Short bonnet

CAUTION: Product selection is the sole responsibility of the user, regardless of any recommendations or suggestions made by the factory. The user shall make selections based upon their own analysis and testing with regard to function, material compatibility and product ratings. Proper installation, operation and maintenance are also required to assure safe, trouble free performance.