

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)

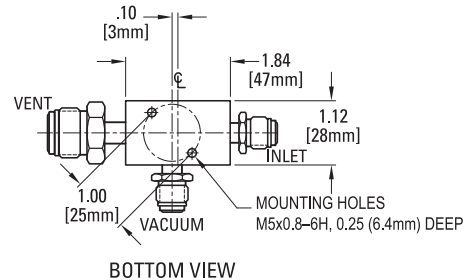
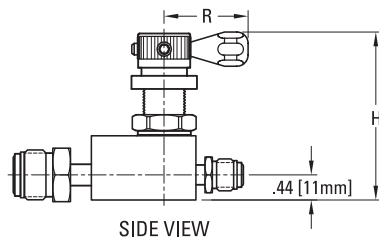
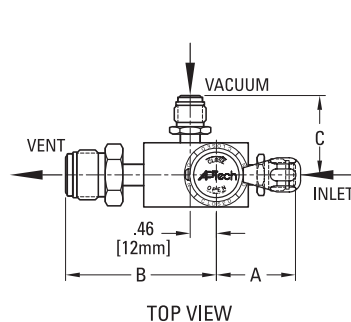
Materials and Actuation Options

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

All specifications subject to change without notice.

THE ULTIMATE VACUUM SOLUTION

DIMENSIONAL INFORMATION

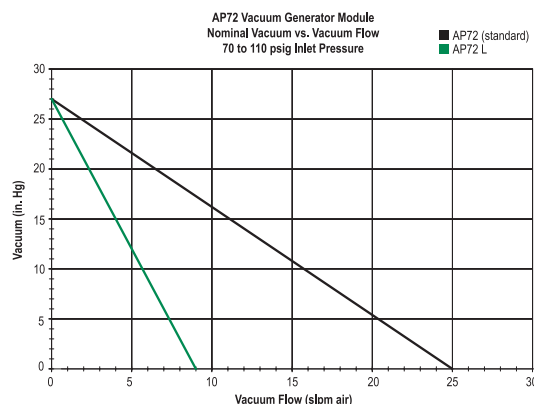
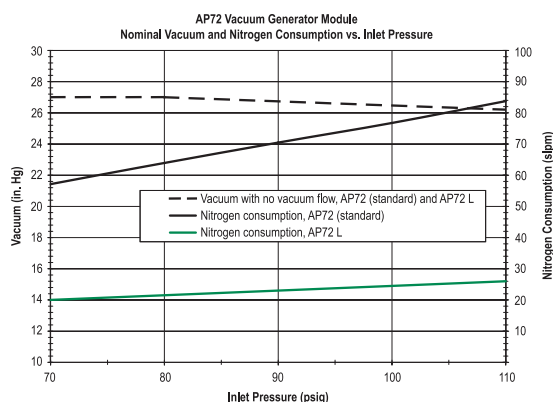
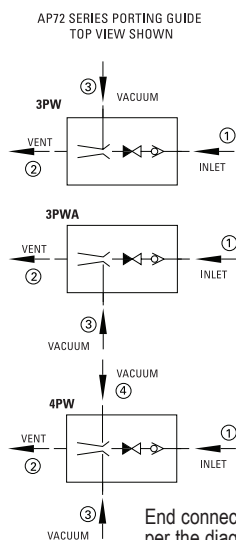


Model	Actuator Radius, R		Height, H	
	in [±.01]	mm [±.3]	in [±.10]	mm [±3.0]
AP72540	.73	18.5	3.49	88.6
AP72550	.69	17.4	3.28	83.3
AP72600	1.06	26.9	3.00	76.2
AP72625	1.48	37.6	2.94	74.7
AP72650	.94	23.9	3.02	76.7

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.

PORTING CONFIGURATIONS



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.

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	3PW = 3 Port 3PWA = 3 Port 4PW = 4 Port	
Refer to porting configuration above for selection			
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.			
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	

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