



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 316 construction
- Installation and operating instructions available at www.aptech-online.com in the Tech Briefs section

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	5,000 psig (345 bar)
Burst pressure, applied to vacuum port	10,000 psig (690 bar)
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)

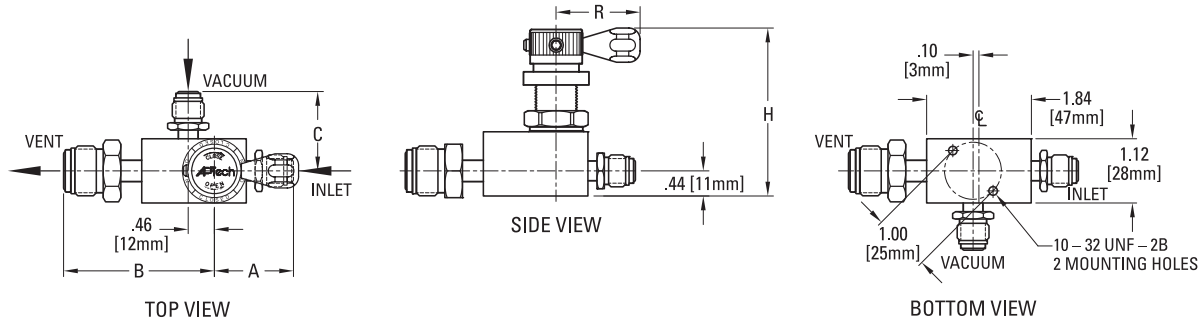
Materials and Actuation Options

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	316L SS
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)

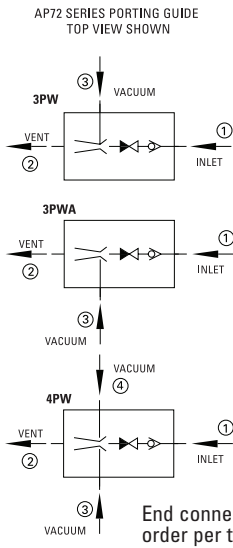
All specifications subject to change without notice.

THE ULTIMATE VACUUM SOLUTION

DIMENSIONAL INFORMATION



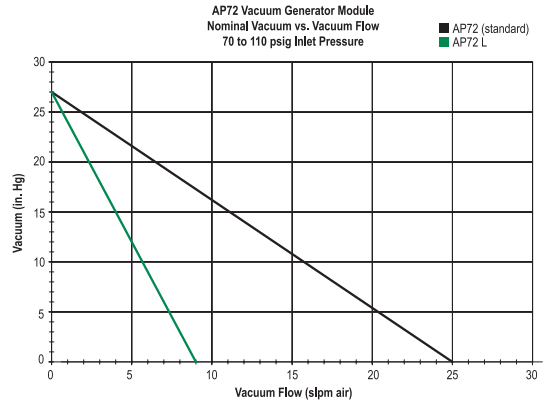
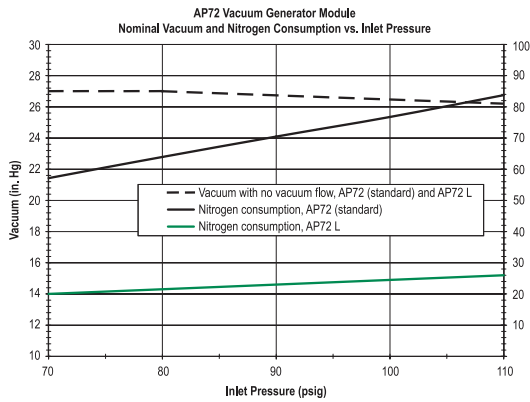
PORTING CONFIGURATIONS



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.



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	MV4 N2 Inlet MV4 = 1/4 inch face seal male FV4 = 1/4 inch face seal female
625 Type	625 = 1/4 turn lever 540 = Pneumatic NC 550 = Pneumatic NC 650 = 1/4 turn knob 600 = Multi-turn knob	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
s Material	S = Stainless steel (SS)	TW4 Vacuum MV4 = 1/4 inch face seal male FV4 = 1/4 inch face seal female TW4 = 1/4 inch tube weld stub
3PW Porting	3PW = 3 Port 3PWA = 3 Port 4PW = 4 Port Refer to porting configuration above for selection	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

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.