

# 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 Nitrogen
- Stainless steel 316 construction
- Installation and operating instructions available at [www.aptech-online.com](http://www.aptech-online.com) in the Tech Briefs section

### Operating Parameters

N2 inlet	70 to 110 psig (4.8 to 7.6 bar)
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 <sup>-10</sup> sccs
Outboard leakage	2 x 10 <sup>-9</sup> sccs He at 250 psig inlet pressure
Leakage across seat	4 x 10 <sup>-8</sup> 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)

\* Vacuum specifications are based on a 3/8" vent line of 30" 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 72540 vacuum to 125 psig (9 bar) AP 72550 vacuum to 250 psig (17 bar)

### Materials and Actuation Options

Actuation Options (Valve type)		Materials	
		Wetted Parts	<b>Series AP 72 S</b>
72625	1/4 turn lever (3625)	Body	316L SS
72540	Pneumatic NC (3540)	Finish	electropolished and passivated
72550	Pneumatic NC (3550)	Diaphragm	Elgiloy®
72650	1/4 turn knob (3650)	Seat	PCTFE (Vespel® optional)
72600	Multi-turn knob (3600)	Check Valve Seal	Viton® (optional seal available)

# THE ULTIMATE VACUUM SOLUTION

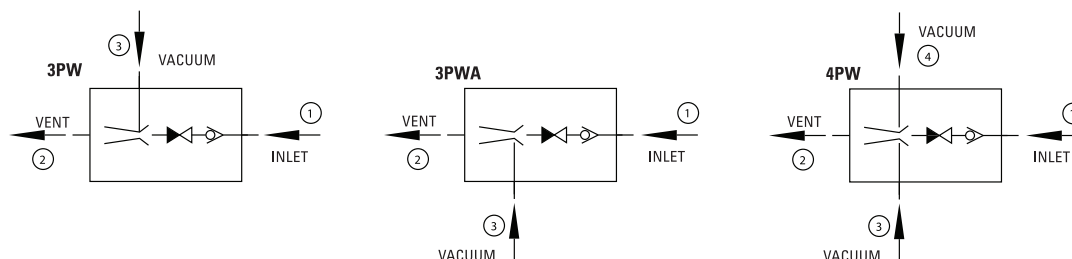
## DIMENSIONAL INFORMATION

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	—	—

\* High flow 1/4" face seal fittings.

AP72 SERIES PORTING GUIDE – TOP VIEW SHOWN

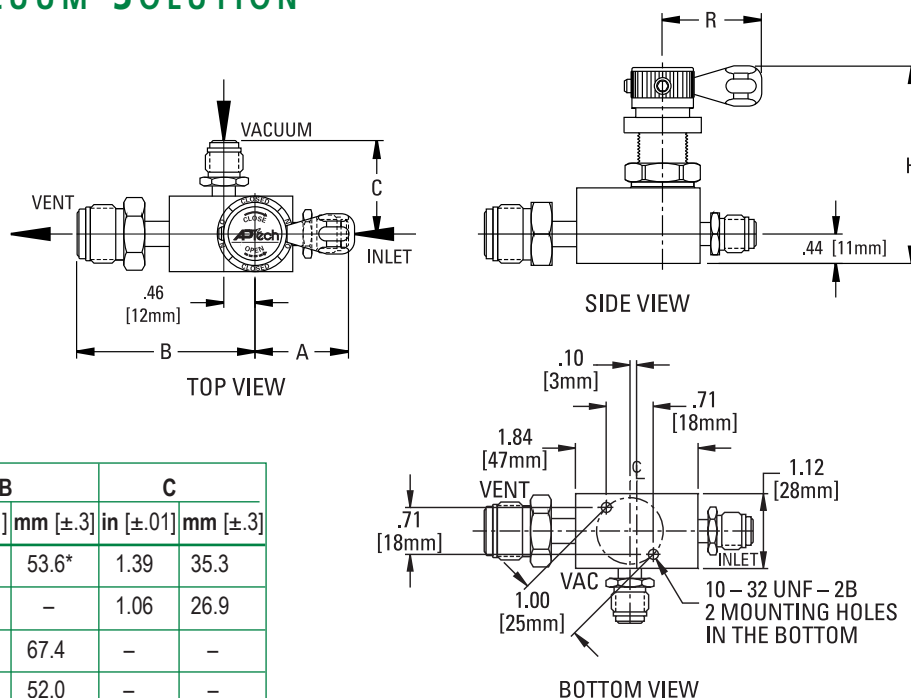


End connections are specified in numerical order per the diagram's numbered arrows.

**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.

## ORDERING INFORMATION

Sample Order Number		AP 72625S 3PW MV4 FV6 TW4 CB009	
AP 72625	Series	AP 72625 = 1/4 turn lever AP 72540 = Pneumatic NC AP 72550 = Pneumatic NC AP 72650 = 1/4 turn knob AP 72600 = 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	
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 = Vespel seat	



All dimensions in inches (mm). Metric dimensions are for reference only.