

SERIES AP 3625 & AP 4625

MANUAL 1/4" & 3/8" SPRINGLESS DIAPHRAGM VALVE

A new twist in 1/4 turn technology



- Stainless steel 316L VAR secondary remelt or Hastelloy® alloy C-22® construction
- 1/4 turn lever
- 15 µin. surface finish; (10, 7 and 5 µin. optional)
- Metal to metal seal to atmosphere
- Replaceable PCTFE seat (Vespel® optional)
- LOTO compatible, PL 225
- Available in surface mount, multiport or monoblock
- Optional handle sizes and colors
- Low internal volume and surface area

Operating Parameters

Inlet pressure	AP 3625	vacuum to 3,000 psig (207 bar)
	AP 4625	vacuum to 250 psig (17 bar)
Outlet pressure	AP 3625	vacuum to inlet pressure
	AP 4625	vacuum to inlet pressure
Proof pressure	AP 3625	4,000 psig (276 bar)
	AP 4625	1,000 psig (69 bar)
Burst pressure	AP 3625	8,000 psig (552 bar)
	AP 4625	8,000 psig (552 bar)

Other Parameters

Inlet/outlet connectors		1/4 or 3/8 inch face seal or tube weld
Flow coefficient (Cv)	AP 3625	0.29, X _T = 0.6
	AP 4625	0.5, X _T = 0.6
Internal volume		0.06 in ³ (1.07 cm ³)
Operating temperature		-40° to +160°F (-40° to +71°C)
Surface finish		15 µin. (0.4 µm) Ra max standard; 10 µin (0.25 µm); 7 µin (0.18 µm); and 5 µin (0.13 µm) optional
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

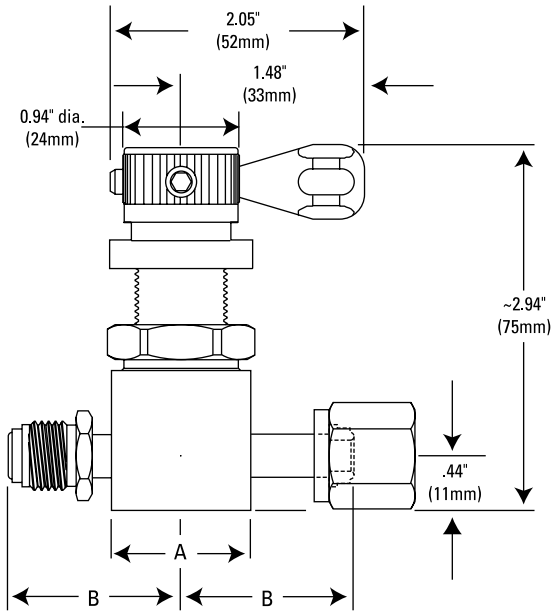
Materials

Type of Service	Series AP 3625 S & 4625 S Noncorrosive	Series AP 3625 H & 4625 H Corrosive
Wetted Parts		
Body	stainless steel 316L secondary remelt	Hastelloy alloy C-22
Finish	electropolished and passivated	electropolished
Diaphragm	Elgiloy®	Elgiloy
Seat	PCTFE (Vespel® optional)	PCTFE

All specifications subject to change without notice.

Hastelloy® C-22® Haynes Corporation Vespel® DuPont Elgiloy® Elgiloy Corporation

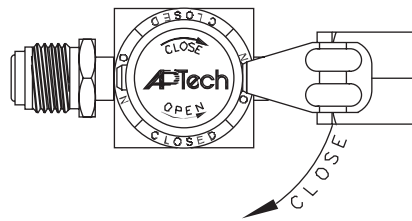
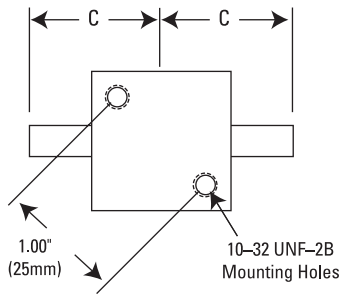
ENGINEERING DATA — SERIES AP 3625 & AP 4625 SPRINGLESS DIAPHRAGM VALVE



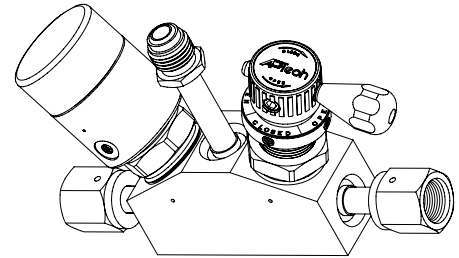
PLEASE NOTE

Hastelloy design may vary. Please consult factory for current specifications

MATERIAL	CONNECTION	A		B		C	
		in.	mm	in. [± 0.01]	mm	in. [± 0.01]	mm
S	FV4, MV4	1.12 sq.	28	1.39	35	—	—
	TW4	1.12 sq.	28	—	—	1.06	27
	FV6, MV6	1.12 sq.	28	1.93	49	—	—
	TW6	1.12 sq.	28	—	—	1.33	34
H	FV4, MV4	1.25 dia.	32	1.45	37	—	—
	TW4	1.25 dia.	32	—	—	1.08	27
	FV6, MV6	1.25 dia.	32	1.93	49	—	—
	TW6	1.25 dia.	32	—	—	1.33	34



Optional handle colors and configurations available.



Multiport, monoblock, IGS and custom configurations available.

All dimensions in inches (mm).

Sample Order Number

AP 3625SM 2PW MV4 MV4

AP 3625 | Series

AP 3625
AP 4625

S | Material

S = 316 L stainless steel
H = Hastelloy alloy C-22

M | Surface Finish Options

M = 10 μ m. Ra
V = 7 μ m. Ra
X = 5 μ m. Ra

2PW | Ports

2PW = 2 ports butt weld
3PW = 3 ports butt weld
4PW = 4 ports butt weld
5PW = 5 ports butt weld

Refer to valve porting guide for selection.
Please refer to technical bulletin 206 for surface mount (IGS) options.

MV4 MV4 | Connections Inlet / Outlet

FV4 = 1/4 inch face seal female
MV4 = 1/4 inch face seal male
TW4 = 1/4 inch tube stub weld
FV6 = 3/8 inch face seal female
MV6 = 3/8 inch face seal male
TW6 = 3/8 inch tube stub weld

| Options

1.75 = 1.75" face to face TW4
VS = Vespel seat
P = Panel Mount*

* Panel hole 0.78" diameter.