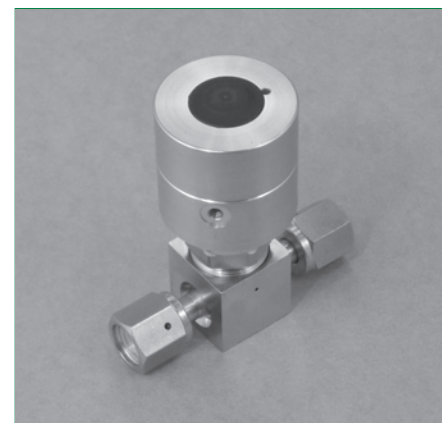


# SERIES AP 3571 & 4571

## 1/4 & 3/8 INCH SPRINGLESS DIAPHRAGM VALVES

Dual mode – metered or full open



- Soft start valve to minimize vacuum chamber pressurization turbulence
- Stainless steel 316L VAR secondary remelt construction
- Metal to metal seal to atmosphere
- Metered flow adjustable  
AP 3571 – 10 to 200 slpm  
AP 4571 – 10 to 350 slpm  
at 80 psig of N<sub>2</sub>
- Pneumatically actuated normally closed
- Two separate actuation ports – metered and full open
- Installation and operating instructions available at [www.aptech-online.com](http://www.aptech-online.com) in the Tech Briefs section

### Operating Parameters – all valves

Inlet pressure	vacuum to 125 psig (8.6 bar)
Outlet pressure	vacuum to inlet pressure
Proof pressure	200 psig (13.8 bar)
Burst pressure	1,000 psig (68.9 bar)
Actuation pressure	70 to 110 psig (4.8 to 7.6 bar)

### Other Parameters – all valves

Status	normally closed
Inlet /outlet connectors	1/4 or 3/8 inch face seal or tube weld
Actuation ports (2 ea.) Port 1 = metered Port 2 = full open	M5 thread, side ports, 180° apart, oriented in-line with mounting holes
Flow coefficient AP 3571 AP 4571	0.29, X <sub>T</sub> = 0.6 0.5, X <sub>T</sub> = 0.6
Internal volume	0.06 in <sup>3</sup> (1.07 cm <sup>3</sup> )
Operating temperature	32° to 125°F (0° to 51°C)
Surface finish	15 µin. Ra max / 10 µin. Ra avg. (0.4/0.25 µm) standard; 10 µin (0.25 µm); 7 µin (0.18 µm); and 5 µin (0.13 µm) Ra max optional
Inboard leakage	2 x 10 <sup>-10</sup> sccs
Outboard leakage	2 x 10 <sup>-9</sup> sccs He at 125 psig
Leakage across seat	4 x 10 <sup>-8</sup> sccs He at 125 psig inlet pressure

### Metered Flow Range Tolerance at 80 psig N<sub>2</sub> inlet, 0 psig outlet

10 to 20 slpm	+/- 6 slpm
21 to 50 slpm	+/- 10 slpm
51 to 100 slpm	+/- 15 slpm
101 to 200 slpm	+/- 20 slpm
201 to 350 slpm (AP 4571 only)	+/- 25 slpm

### Materials

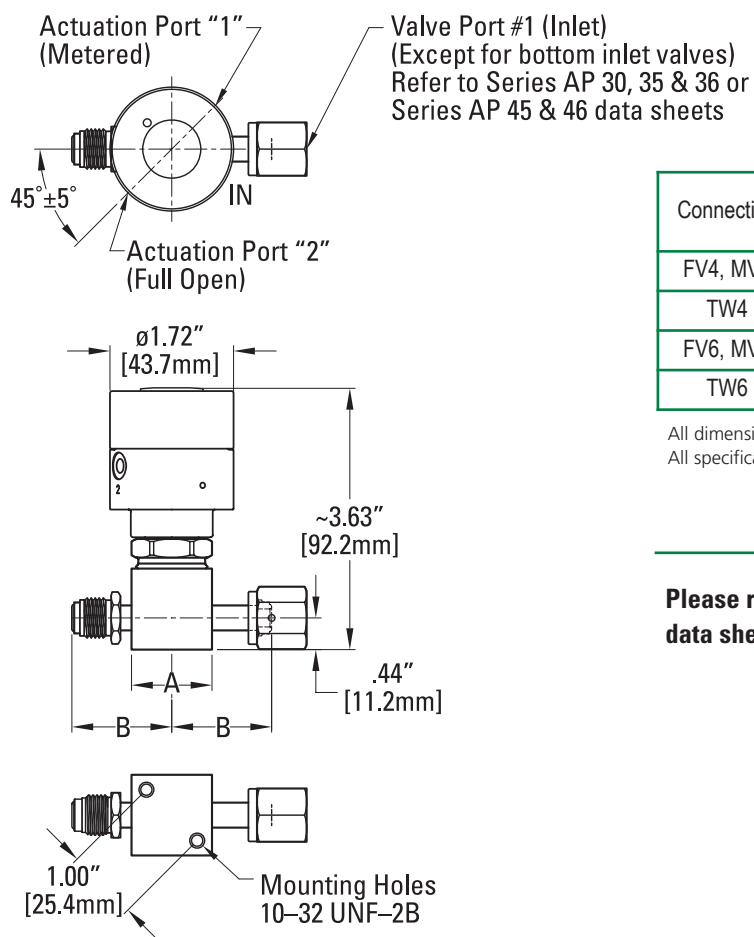
	Series AP 3571 and 4571
Wetted Parts	
Body	SS 316L secondary remelt
Finish	electropolished and passivated
Diaphragm	Elgiloy®
Seat	PCTFE

All specifications subject to change without notice.

Elgiloy® Elgiloy Corporation

# BI-FLOW VALVE – METERED OR FULL OPEN CONTROL

## DIMENSIONAL INFORMATION



Connection	A		B	
	inch	mm	inch [±.01]	mm
FV4, MV4	1.12 SQ	28.4	1.390	35.3
TW4	1.12 SQ	28.4	1.060	26.9
FV6, MV6	1.12 SQ	28.4	1.930	49.0
TW6	1.12 SQ	28.4	1.325	33.7

All dimensions in inches (mm). Metric dimensions are for reference only.  
All specifications subject to change without notice.

Please refer to Series AP 30, 35 & 36 or Series AP 45 & 46 data sheets for porting configuration options.

**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 3571SM 2PW MV4 MV4 M050				
AP 3571	Series	AP 3571 AP 4571	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		
S	Material	S = Stainless steel (SS)		Options	1.75 = 1.75 inch face to face TW4 option	
M	Surface Finish Options	M = 10 μin. Ra max V = 7 μin. Ra max X = 5 μin. Ra max			M050   Metered Flow	MXXX = Metered adjusted flow in slpm at 80 psig N <sub>2</sub>  Note: Replace XXX with flow rate using 3 digits, example 50 slpm = M050
2PW	Ports	2PW = 2 ports 3PW = 3 ports 4PW = 4 ports 5PW = 5 ports  Refer to Series AP 30, 35 & 36 or Series AP 45 & 46 data sheets for selection.  Please refer to technical bulletin 206 for surface mount (IGS) options.				