



# SERIES AP 4141 & 4150

1/2 INCH DIAPHRAGM VALVE  
Springless – manual and pneumatic (NC)

- 316L VAR SS secondary remelt construction
- Flow capacity 0.8 C<sub>v</sub>
- Operating pressure vacuum to 250 psig (17 bar)
- Surface finish 15 Ra max/10 Ra avg (10, 7 & 5 Ra max optional)
- Machined from bar stock
- Springless design for UHP gas service
- Installation and operating instructions available at [www.aptech-online.com](http://www.aptech-online.com) in the Tech Briefs section

## Operating Parameters

Inlet pressure	vacuum to 250 psig (17 bar)
Outlet pressure	vacuum to inlet pressure
Proof pressure	150% of maximum rating
Burst pressure	300% of maximum rating

## Other Parameters

Inlet/outlet connectors	1/4 and 1/2 inch face seal, or 3/8 and 1/2 inch tube stub
Flow coefficient (C <sub>v</sub> )*	0.8, X <sub>T</sub> = 0.7
Internal volume	0.37 in <sup>3</sup> (6.1 cm <sup>3</sup> )
Operating temperature	-40° to +160°F (-40° to +71°C)
Surface finish	15 μin. Ra max/10 μin. Ra (0.4/0.25 μm) standard 10 μin (0.25 μm) and 7 μin (0.18 μm) Ra max optional
Inboard leakage	2 x 10 <sup>-10</sup> sccs
Outboard leakage	2 x 10 <sup>-9</sup> sccs He
Leakage across seat	4 x 10 <sup>-8</sup> sccs He

\*C<sub>v</sub> based upon 1/2 inch fittings.

## Operating Parameters – pneumatic valve

Status AP 4141	normally closed (NC)
Actuation port	M5, side port
Actuation pressure	70 to 110 psig (4.8 to 7.6 bar)

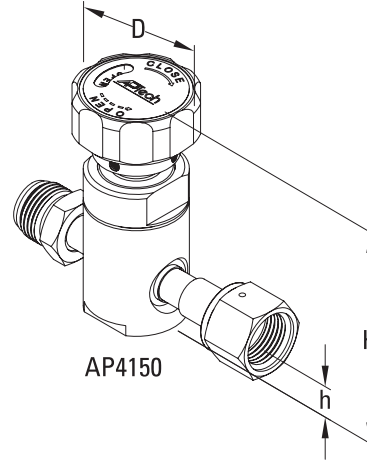
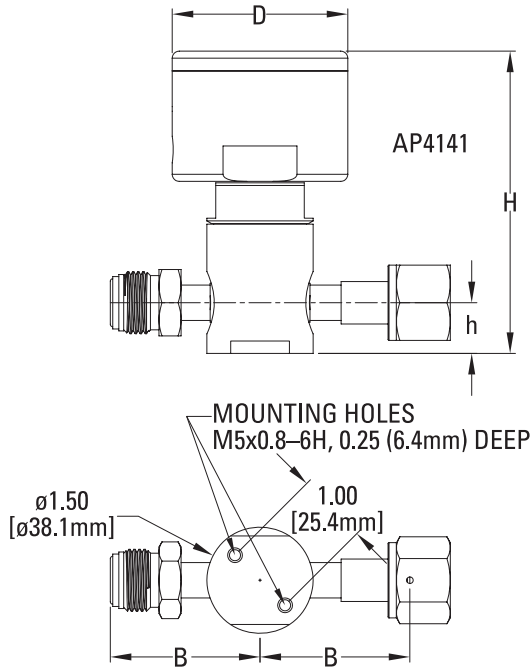
## Materials

Wetted Parts	Series AP 4141 & AP 4150
Body	SS 316L secondary remelt
Finish	electropolished and passivated
Diaphragm	Co-Ni-Cr alloy / UNS R30003
Seat	PCTFE (Polyimide optional)

All specifications subject to change without notice.

# SERVICE AND SUPPORT BEYOND COMPARE

## DIMENSIONAL INFORMATION

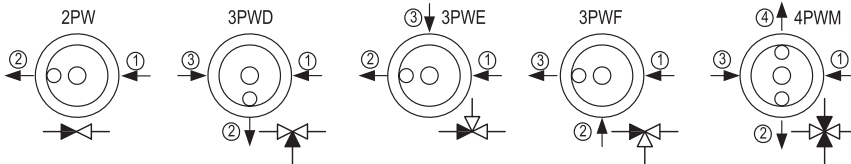


VALVE	D		H	
	inch	mm	inch	mm
AP4141	ø2.48	63.0	4.3	109.2
AP4150	ø1.88	47.8	3.8	96.5

CONNECTION	B		h	
	inch	mm	inch	mm
FV4, MV4	1.59±.02	40.4	0.715	18.2
FV8, MV8	2.12±.02	53.8	0.715	18.2
TW6	1.49±.02	37.8	0.715	18.2
TW8	1.53±.02	38.9	0.715	18.2

- Metric dimensions are for reference only.
- Height of the valve (H) is an approximate value.
- All specifications subject to change without notice.
- Manual valve is shown in open position.

## PORTING CONFIGURATIONS



**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 4141SM 2PW MV8 MV8 VS	
AP 4141   Series	AP 4141 AP 4150	MV8 MV8   Connections Inlet / Outlet	FV4 = 1/4 inch face seal female MV4 = 1/4 inch face seal male TW6 = 3/8 inch tube weld stub FV8 = 1/2 inch face seal female MV8 = 1/2 inch face seal male TW8 = 1/2 inch tube weld stub
S   Material	S = Stainless steel (SS)	VS   Options	VS = Polyimide seat
M   Surface Finish Option	M = 10 µin. Ra max V = 7 µin. Ra max X = 5 µin. Ra max		
2PW   Ports	2PW = 2 ports 3PWD = 3 ports 3PWF = 3 ports		

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.