



SERIES AZ 4141, 4150 & 4157

1/2 INCH DIAPHRAGM VALVE

Springless – manual and pneumatic (NC)

- 316L SS construction
- Flow capacity 0.8 C_v
- Operating pressure vacuum to 250 psig (17 bar)
- Surface finish 10 Ra
- Machined from bar stock
- LOTO–standard 4157
- Springless design for UHP gas service
- AZ 4141 pneumatic NC
- AZ 4150 manual knob 1/4 turn with open/closed indicator
- AZ 4157 manual knob 1/4 turn pull to open with LOTO
- Installation and operating instructions available at www.aptech-online.com

Valves

AZ 4150	manual, round knob 1/4 turn open/closed indicator
AZ 4157	manual, round knob LOTO open/closed indicator
AZ 4141	pneumatic, normally closed (NC)

Operating Parameters

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

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 _v)*	0.8, X _T = 0.7
Internal volume	0.37 in ³ (6.1 cm ³)
Operating temperature	-40° to +160°F (-40° to +71°C)**
Surface finish	10 μin. Ra (0.25 μm)
Inboard leakage	2 x 10 ⁻¹⁰ sccs
Outboard leakage	2 x 10 ⁻⁹ sccs He
Leakage across seat	1 x 10 ⁻⁹ sccs He

*C_v based upon 1/2 inch fittings.

**VS option 14° to 194°F (-10° to + 90°C).

Operating Parameters – pneumatic valve

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

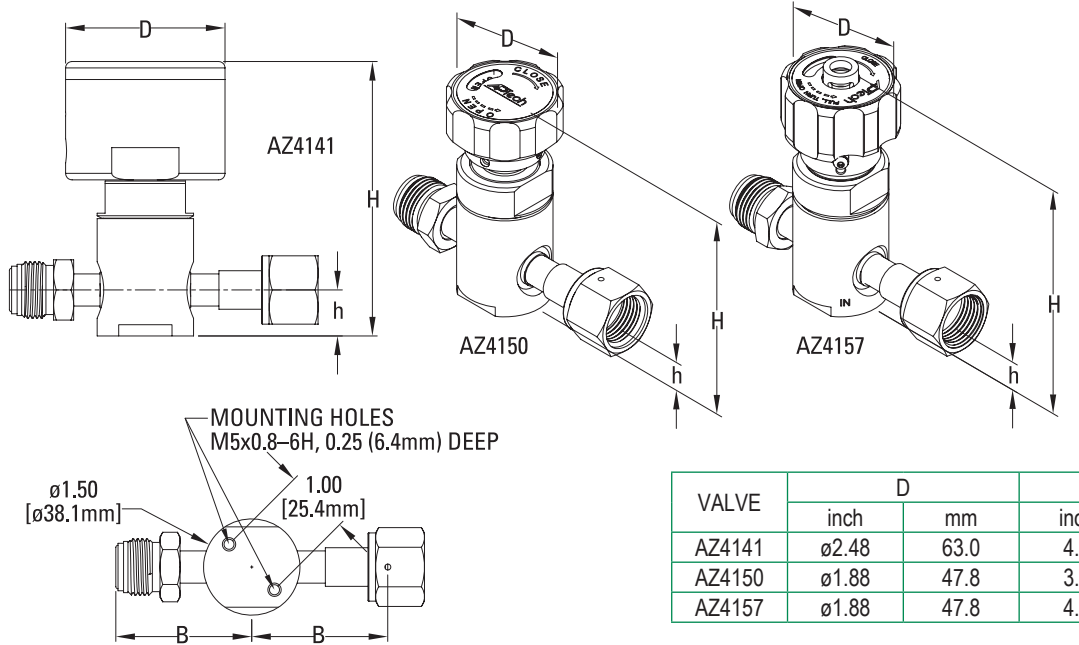
Materials

Series AZ 4141 & AZ 4150	
Wetted Parts	
Body	SS 316L
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

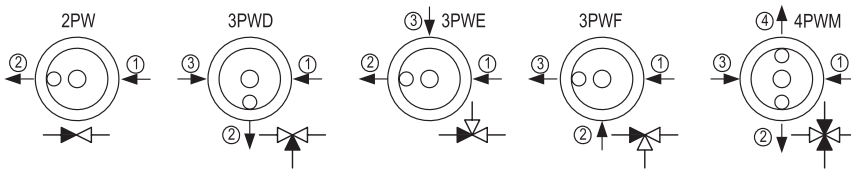


VALVE	D		H	
	inch	mm	inch	mm
AZ4141	ø2.48	63.0	4.3	109.2
AZ4150	ø1.88	47.8	3.8	96.5
AZ4157	ø1.88	47.8	4.4	109.5

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		AZ 4141S 2PW MV8 MV8 VS	
AZ 4141 Series	AZ 4141 AZ 4150 AZ 4157	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 ISH = Indicating switch, 4150 only
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.