



SERIES AZ 1500

TIED DIAPHRAGM REGULATOR

Low Flow — High Pressure

- SS 316L construction
- 10 μ m. surface finish (25 μ m. optional)
- Vacuum to 3500 psig (241 bar) inlet
HR option to 4,500 psig (310 bar)
- 1 to 150 psig (0.07 to 10 bar) outlet
- Cleaned, assembled and packaged for high purity semiconductor applications
- Regulator of choice for low flow source cabinet applications
- Installation and operating instructions available at www.aptech-online.com in the Tech Briefs section

Operating Parameters

Source pressure	vacuum to 3,500 psig (241 bar) HR option vacuum to 4,500 psig (310 bar)
Delivery pressure	AZ 1502 1 to 30 psig (0.07 to 2 bar) AZ 1506 2 to 60 psig (0.14 to 4 bar) AZ 1510 2 to 100 psig (0.14 to 7 bar) AZ 1515 5 to 150 psig (.34 to 10 bar)
Proof pressure	150% of maximum rating
Burst pressure	400% of maximum rating

Other Parameters

Inlet/outlet connectors	1/4 or 3/8 inch face seal or tube weld
Flow coefficient (Cv)	0.09 (0.15 HF option)
Internal volume	0.51 in ³ (8.4 cm ³)
Operating temperature	-40° to +160°F (-40° to +71°C)
Surface finish	10 μ m. (0.25 μ m) Ra avg. standard 25 μ m. (0.62 μ m) Ra avg. optional
Inboard leakage	2 x 10 ⁻¹⁰ sccs
Outboard leakage	2 x 10 ⁻⁹ sccs He
Leakage across seat	4 x 10 ⁻⁸ sccs He
Installation	surface or panel (optional)
Supply pressure effect	0.25 psig per 100 psig source pressure change HF 0.75 psig per 100 psig source pressure change

Materials

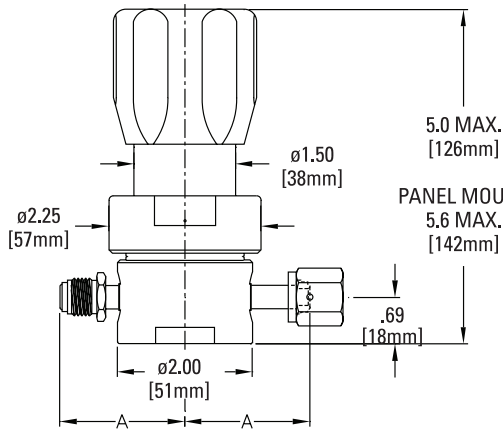
	Series AZ 1500 S	Series AZ 1500 SHP
Wetted Parts		
Body, nozzle	SS 316L*	SS 316L*
Poppet, diaphragm	SS 316L	Ni-Cr-Mo alloy / UNS N06022
Finish	electropolished and passivated	electropolished and passivated
Seat	PCTFE (Polyimide optional)	PCTFE

All specifications subject to change without notice.

* Please refer to product note PN 414 regarding single melt 316L SS material.

ULTRACLEAN BY DESIGN AND MANUFACTURING

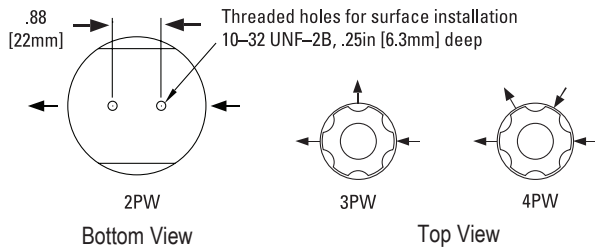
DIMENSIONAL INFORMATION



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

Face Seal	A	
	in	mm
1/4"	1.85 ±.01	47
3/8"	2.35 ±.02	60

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 1510SQ 2PW FV4 FV4	
AZ 1510 Series	AZ 1502 = 1-30 psig (.07 to 2 bar) AZ 1506 = 2-60 psig (.14 to 4 bar) AZ 1510 = 2-100 psig (.14 to 7 bar) AZ 1515 = 5-150 psig (.34 to 10 bar)	
S Material	S = Stainless steel SHP = SS/Ni-Cr-Mo alloy poppet and diaphragm	
Q Surface Finish Option	Q = 25 µin. Ra avg.	
2PW Ports	2PW = 2 ports butt weld 3PW = 3 ports butt weld 4PW = 4 ports butt weld	
FV4 FV4 Connections Inlet / Outlet	FV4 = 1/4 inch face seal female MV4 = 1/4 inch face seal male FV6 = 3/8 inch face seal female MV6 = 3/8 inch face seal male Tube weld stub available	
Gauges* Source / Delivery	0 = No gauge V3 = 30-0-30 psig/bar L = 30-0-60 psig/bar 1 = 30-0-100 psig/bar H = 30-0-160 psig/bar 10 = 0-1000 psig/bar 40 = 0-4000 psig/bar 60 = 0-6000 psig/bar * Standard gauge port is 1/4 inch face seal male (1/4 inch face seal female are available).	
Options	VS = Polyimide seat P = Panel installation** HR = High inlet rating*** HF = High flow ** Panel hole 1.56" diameter. *** HR option not available with 3/8 inch fittings, tube stubs, nor with HF option.	

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.

