

# SERIES AZ 1000

## SINGLE STAGE REGULATOR

Flow Rates to 120 slpm



- SS 316L construction
- 10 µin. surface finish (25 µin. optional)
- Vacuum to 3500 psig (241 bar) inlet
- 1 to 150 psig (0.07 to 10 bar) outlet
- Cleaned, assembled and packaged for high purity semiconductor applications
- Flow rates
  - Standard to 30 slpm
  - HF option to 120 slpm
- Regulator of choice for point of use applications
- Installation and operating instructions available at [www.aptech-online.com](http://www.aptech-online.com) in the Tech Briefs section

### Operating Parameters

Source pressure		vacuum to 3,500 psig (241 bar)
	AZ 1001 and TF option	vacuum to 300 psig (21 bar)
Delivery pressure	AZ 1001	1 to 10 psig (0.07 to 0.7 bar)
	AZ 1002	1 to 30 psig (0.07 to 2 bar)
	AZ 1006	2 to 60 psig (0.14 to 4 bar)
	AZ 1010	2 to 100 psig (0.14 to 7 bar)
	AZ 1015	5 to 150 psig (.34 to 10 bar)
	AZ 1030	5 to 300 psig (.34 to 21 bar)
Proof pressure		150% of maximum rating
Burst pressure		300% 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		0.49 in <sup>3</sup> (8 cm <sup>3</sup> )
Operating temperature		-40° to +160°F (-40° to +71°C)
Surface finish		10 µin. (0.25 µm) Ra avg. standard 25 µin. (0.62 µm) Ra avg. 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
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

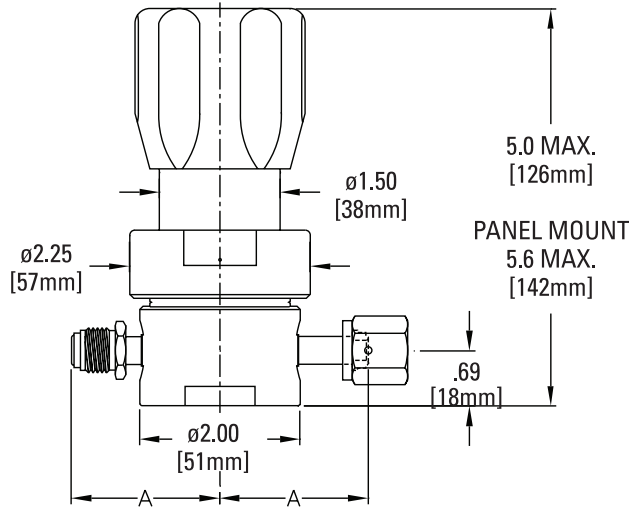
	Series AZ 1000 S	Series AZ 1000 SHP
Wetted Parts		
Body, nozzle	SS 316L*	SS 316L*
Poppet, diaphragm	SS 316L	Ni-Cr-Mo alloy / UNS N06022
Finish	electropolished and passivated	electropolished and passivated
Seat	PCTFE (Polyimide and PTFE optional)	PCTFE (PTFE optional)

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

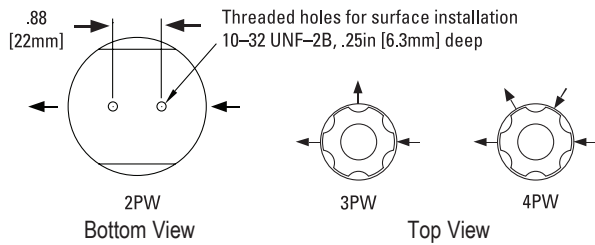
## DIMENSIONAL INFORMATION



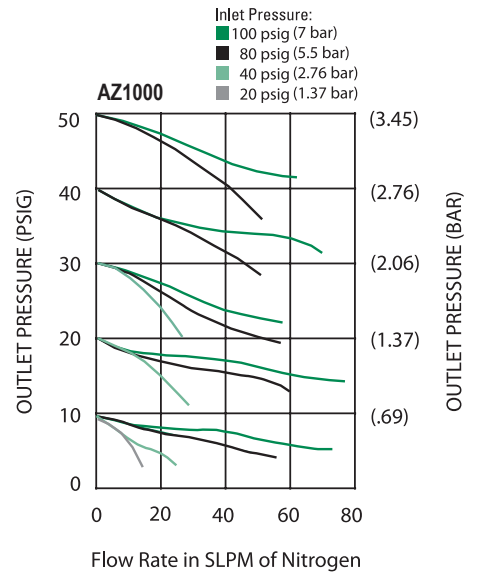
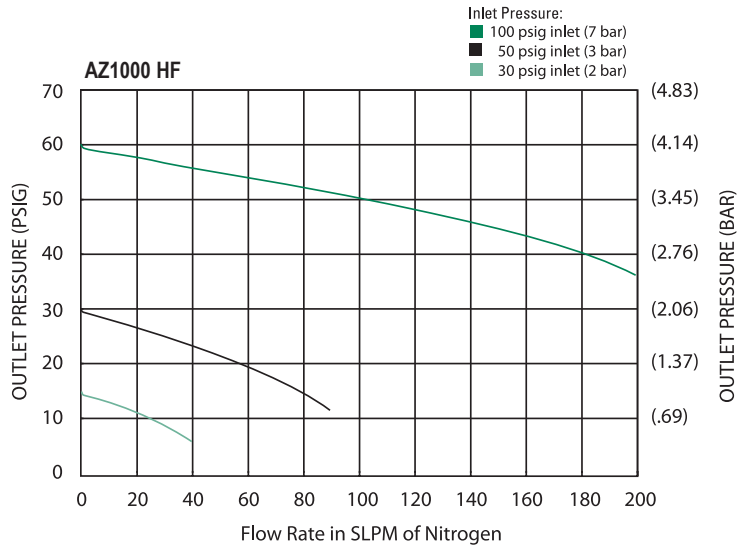
All dimensions in inches. Metric dimensions (mm) are for reference only.

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 1010SQ 2PW FV4 FV4		
<b>AZ 1010</b>   Series	AZ 1001 = 1-10 psig (.07 to .7 bar) AZ 1002 = 1-30 psig (.07 to 2 bar) AZ 1006 = 2-60 psig (.14 to 4 bar) AZ 1010 = 2-100 psig (.14 to 7 bar) AZ 1015 = 5-150 psig (.34 to 10 bar) AZ 1030 = 5-300 psig (.34 to 21 bar)	<b>FV4 FV4</b>   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
<b>S</b>   Material	S = Stainless steel (SS) SHP = SS/Ni-Cr-Mo alloy poppet and diaphragm	<b>Delivery Gauge*</b>	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  * Standard gauge port is 1/4 inch face seal male (1/4 inch face seal female are available).
<b>Q</b>   Surface Finish Option	Q = 25 µin. Ra avg.	<b>Options</b>	VS = Polyimide seat TF = PTFE seat HF = High flow P = Panel installation**  ** Panel hole 1.56" diameter.
<b>2PW</b>   Ports	2PW = 2 ports butt weld 3PW = 3 ports butt weld 4PW = 4 ports butt weld		

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.