



# SERIES AZ 15PA

## TIED DIAPHRAGM REGULATOR

### PNEUMATIC ACTUATION

Low Flow — High Pressure

- Actuation control pressure isolated from process gas
- SS 316L construction
- 10  $\mu$ m. surface finish (25  $\mu$ m. optional)
- Vacuum to 3500 psig (241 bar) inlet
- 7 to 150 psig (0.5 to 10 bar) outlet
- Cleaned, assembled and packaged for high purity semiconductor applications
- 100 psig outlet achieved with 80 psig control pressure or less
- Actuation 'fail safe' normally closed (NC)
- Installation and operating instructions available at [www.aptech-online.com](http://www.aptech-online.com)

### Operating Parameters

Source pressure	vacuum to 3,500 psig (241 bar)
Delivery pressure AZ 15PA	7 to 150 psig (0.5 to 10 bar)
Proof pressure	150% of operating pressures
Burst pressure	300% of operating pressures
Control pressure	150 psig (10 bar) maximum

### Other Parameters

Inlet/outlet connectors	1/4 or 3/8 inch face seal or tube weld
Flow coefficient (Cv)	0.09
Control pressure port	1/8 inch NPT
Bonnet vent port	1/8 inch NPT
Internal volume	0.51 in <sup>3</sup> (8.4 cm <sup>3</sup> )
Operating temperature	-40° to +160°F (-40° to +71°C)*
Surface finish	10 $\mu$ m. (0.25 $\mu$ m) Ra avg 25 $\mu$ m. (0.62 $\mu$ m) option
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
Supply pressure effect	0.25 psig per 100 psig source pressure change

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

ENGINEERING DATA — SERIES AZ 15PA TIED DIAPHRAGM REGULATOR

### Materials

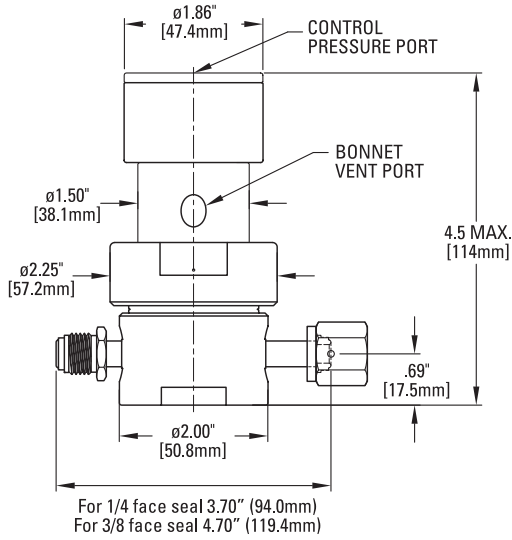
	Series AZ 15PA S	Series AZ 15PA SHP
Wetted Parts		
Body, nozzle	SS 316L**	SS 316L**
Poppet, diaphragm	SS 316L	Ni-Cr-Mo alloy / UNS N06022
Finish	electropolished and passivated	electropolished and passivated
Seat	PCTFE (Polyimide optional)	PCTFE

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

All specifications subject to change without notice.

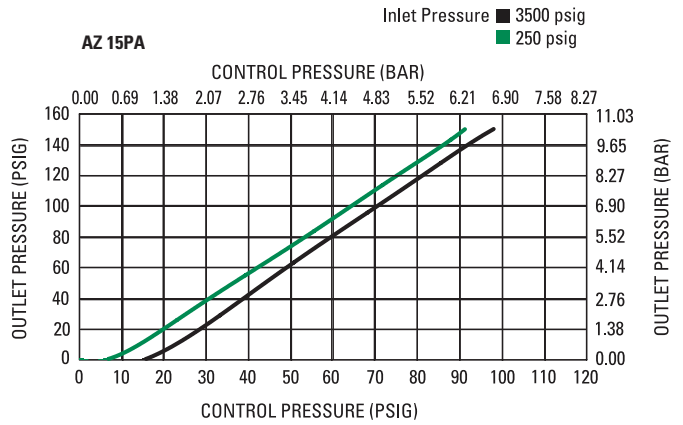
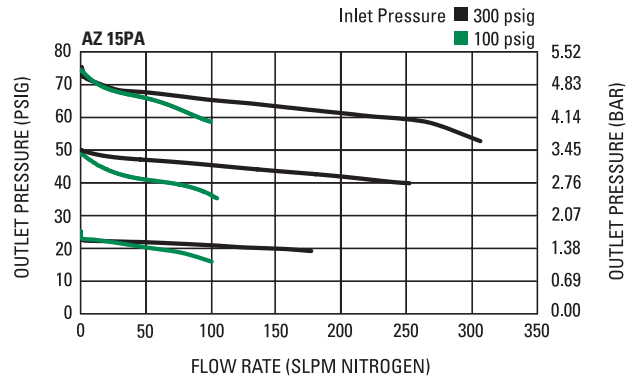
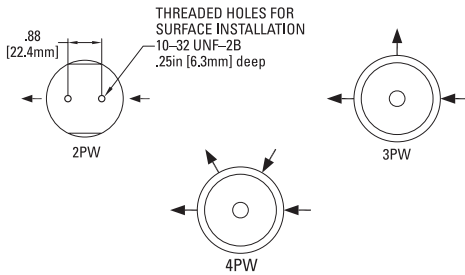
# ULTRACLEAN BY DESIGN AND MANUFACTURING

## DIMENSIONAL INFORMATION



All dimensions in inches (mm).

## 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 15PASQ 2PW FV4 FV4**

**AZ 15PA | Series** AZ 15PA = 7-150 psig (0.5 to 10 bar)

**S | Material**  
 S = Stainless steel  
 SHP = SS/Ni-Cr-Mo alloy poppet and diaphragm

**Q | Surface Finish Option**  
 Q = 25  $\mu$ in.

**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  
 2 = 0-200 psig/bar  
 4 = 0-400 psig/bar  
 10 = 0-1000 psig/bar  
 40 = 0-4000 psig/bar

\* Standard gauge ports are 1/4 inch face seal male (1/4 inch face seal female are available).

**Options**

VS = Polyimide seat

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.