



SERIES AZ 15PA

TIED DIAPHRAGM REGULATOR

PNEUMATIC ACTUATION

Low Flow — High Pressure

- Actuation control pressure isolated from process gas
- SS 316L construction
- 10 μ in. surface finish (25 μ in. 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

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 ³ (8.4 cm ³)
Operating temperature	-40° to +160°F (-40° to +71°C)*
Surface finish	10 μ in. (0.25 μ m) Ra avg 25 μ in. (0.62 μ m) option
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
Supply pressure effect	0.25 psig per 100 psig source pressure change

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

***A pressure regulator Cv is a nominal value which indicates the point of choked flow. Please refer to a flow curve or a recommendation guide for usable flow range.

Materials

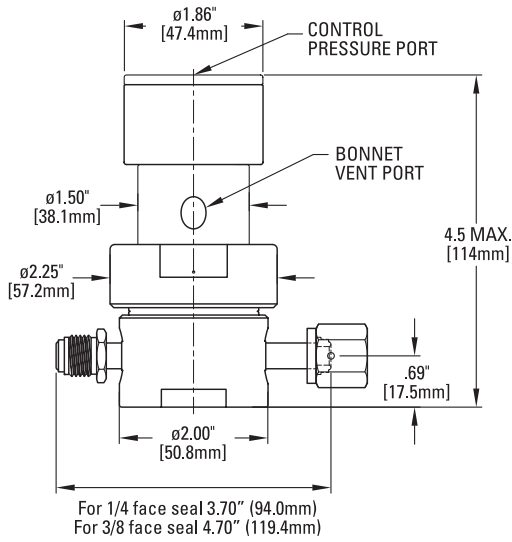
	Series AZ 15PA S	Series AZ 15PA SHP
Wetted Parts		
Body, nozzle	SS 316L**	SS 316L**
Poppet, diaphragm	SS 316L	Ni-Cr-Mo alloy / UNS N06022
Finish	electropolished and passivated	electropolished and passivated
Seat	PCTFE (Polyimide optional)	PCTFE

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

All specifications subject to change without notice.

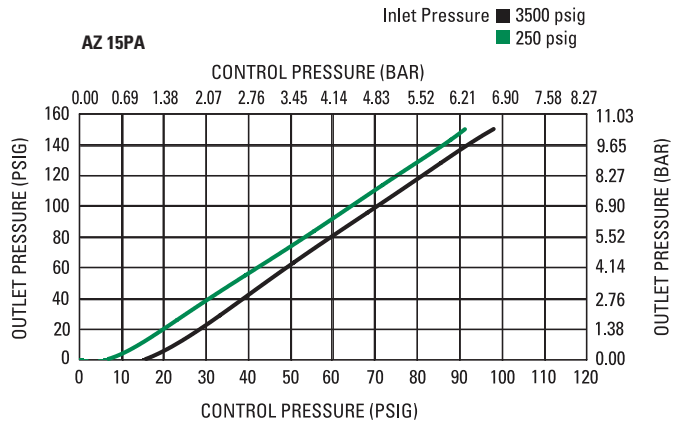
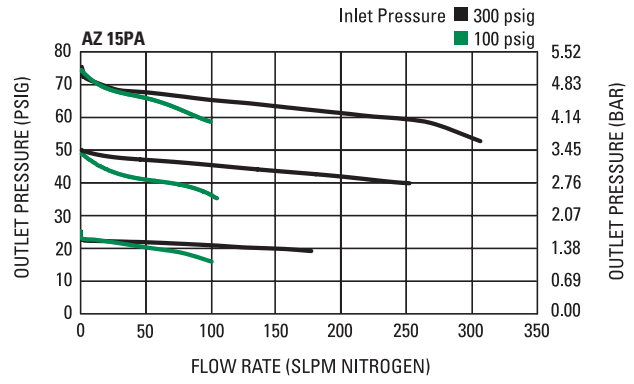
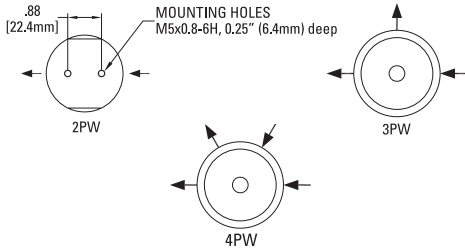
ULTRACLEAN BY DESIGN AND MANUFACTURING

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 μ 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.