



# SERIES AP 15PA

## TIED DIAPHRAGM REGULATOR

### PNEUMATIC ACTUATION

Low Flow — High Pressure

- Actuation control pressure isolated from process gas by two seals
- Single stage
- SS 316L VAR secondary remelt or super alloy construction
- Surface finish  
15 Ra max/10 Ra avg  
(10, 7 & 5 Ra max options)
- Vacuum to 3,500 psig (241 bar) inlet
- 100 psig outlet achieved with 80 psig control pressure or less
- Actuator 'fail safe' normally closed (NC)
- 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) |
| Delivery pressure AP 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   |
| Control pressure port   | 1/8 inch NPT   |
| Bonnet vent port        | 1/8 inch NPT   |
| Flow coefficient (Cv)   | 0.09   |
| 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          | 15 µin Ra max / 10 µin. Ra avg.<br>(0.4/0.25 µm) standard; 10 µin (0.25 µm);<br>7 µin (0.18 µm); and 5 µin (0.13 µm) Ra max optional |
| Inboard leakage         | 2 x 10 <sup>-10</sup> sccs   |
| Outboard leakage        | 2 x 10 <sup>-9</sup> sccs He at 1,500 psig inlet pressure  |
| Leakage across seat     | 4 x 10 <sup>-8</sup> sccs He at 1,000 psig inlet pressure  |
| Installation            | surface  |
| Supply pressure effect  | 0.25 psig per 100 psig source pressure change  |

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

### Materials

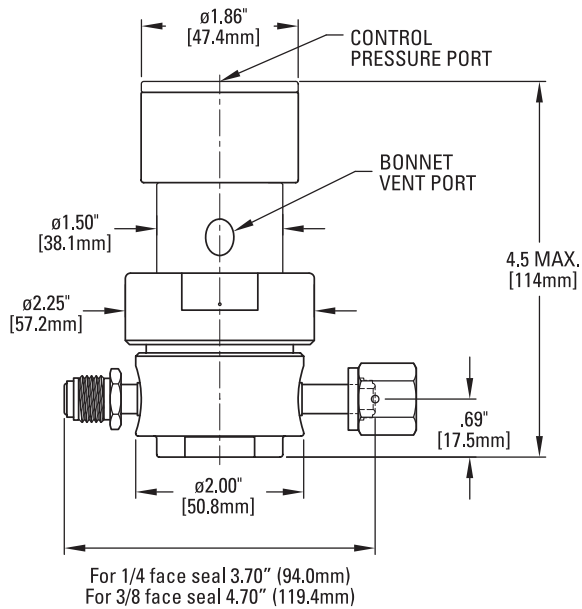
| Type of Service           | Series AP 15PA S<br>Noncorrosive | Series AP 15PA SH<br>Corrosive (SHP option)** | Series AP 15PA H<br>Corrosive |
|---------------------------|----------------------------------|---|-------------------------------|
| Wetted Parts              |                                  |   |                               |
| Body                      | SS 316L secondary remelt         | SS 316L secondary remelt                      | Ni-Cr-Mo alloy / UNS N06022   |
| Poppet, nozzle, diaphragm | SS 316L                          | Ni-Cr-Mo alloy / UNS N06022                   | Ni-Cr-Mo alloy / UNS N06022   |
| Finish                    | electropolished and passivated   | electropolished and passivated                | electropolished               |
| Seat                      | PCTFE (Polyimide optional)       | PCTFE   | PCTFE                         |

\*\*SHP option Ni-Cr-Mo alloy poppet and diaphragm only.

All specifications subject to change without notice.

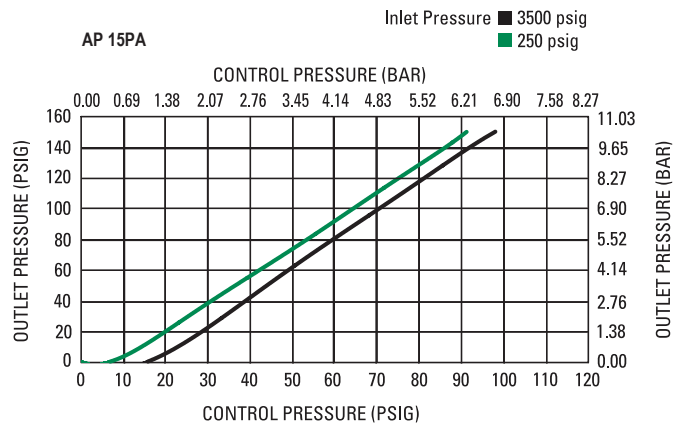
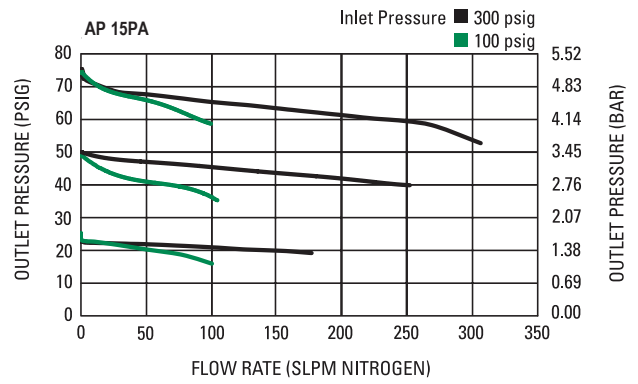
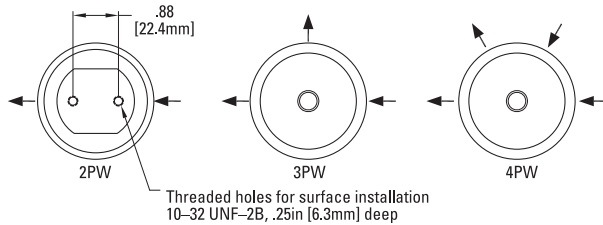
# ULTRACLEAN TECHNOLOGY BACKED BY SERVICE AND SUPPORT

## DIMENSIONAL INFORMATION



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

## 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                  | AP 15PASM 4PW FV4 FV4 40 1  |  |
| AP 15PA   Series                     | AP 15PA = 7-150 psig (.5 to 10 bar)   |  |
| S   Material                         | S = Stainless steel (SS)<br>SH = SS/Ni-Cr-Mo alloy internals<br>SHP = SS/Ni-Cr-Mo alloy poppet diaphragm<br>H = Ni-Cr-Mo alloy  |  |
| M   Surface Finish Options           | M = 10 $\mu$ in. Ra max<br>V = 7 $\mu$ in. Ra max<br>X = 5 $\mu$ in. Ra max   |  |
| 4PW   Ports                          | 2PW = 2 ports butt weld<br>3PW = 3 ports butt weld<br>4PW = 4 ports butt weld   |  |
| FV4 FV4   Connections Inlet / Outlet | FV4 = 1/4 inch face seal female<br>MV4 = 1/4 inch face seal male<br>FV6 = 3/8 inch face seal female<br>MV6 = 3/8 inch face seal male<br><br>Tube weld stub available  |  |
| 40 1   Gauges* Source / Delivery     | 0 = No gauge<br>V3 = 30-0-30 psig/bar<br>L = 30-0-60 psig/bar<br>1 = 30-0-100 psig/bar<br>2 = 0-200 psig/bar<br>4 = 0-400 psig/bar<br>10 = 0-1000 psig/bar<br>40 = 0-4000 psig/bar<br><br>* Standard gauge ports are 1/4 inch face seal male (1/4 inch female available). |  |
| Options                              | VS = Polyimide seat<br>SC = Short bonnet  |  |

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.