

SERIES AP 15PA

TIED DIAPHRAGM REGULATOR

PNEUMATIC ACTUATION

Low Flow — High Pressure



- Actuation control pressure isolated from process gas by two seals
- Single stage
- Hastelloy® alloy C-22® or SS 316L VAR secondary remelt construction
- Cleaned, assembled and packaged for high purity semiconductor applications
- 15 µin. surface finish (10, 7 and 5 µin. opt)
- 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

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 | 5,000 psig (345 bar) |
| Burst pressure | 10,000 psig (690 bar) |
| 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 ³ (8.4 cm ³) |
| Operating temperature | -40° to +160°F (-40° to +71°C) |
| Surface finish | 15 µin. (0.4 µm) Ra max standard; 10 µin (0.25 µm); 7 µin (0.18 µm); and 5 µin (0.13 µm) optional |
| Inboard leakage | 2 x 10 ⁻¹⁰ sccs |
| Outboard leakage | 2 x 10 ⁻⁹ sccs He at 1,500 psig inlet pressure |
| Leakage across seat | 4 x 10 ⁻⁸ sccs He at 1,000 psig inlet pressure |
| Installation | surface |
| Delivery pressure rise | 0.25 psig per 100 psig source pressure drop |

Materials

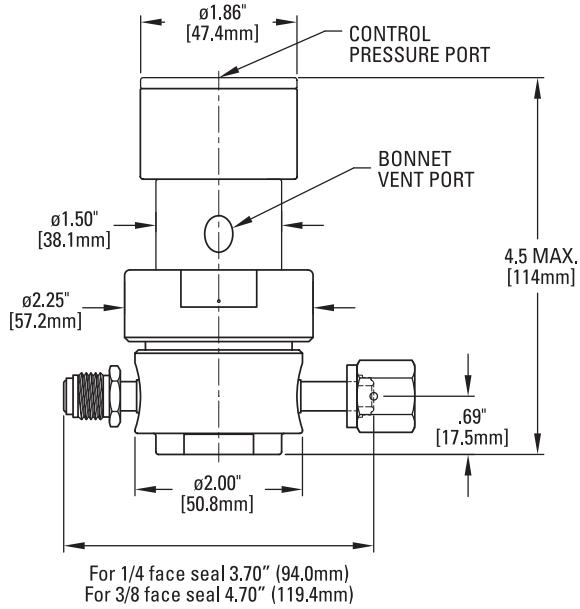
| Type of Service | Series AP 15PA S Noncorrosive | Series AP 15PA SH Corrosive (SHP option)* | Series AP 15PA H Corrosive |
|---------------------------|----------------------------------|--|-------------------------------|
| Wetted Parts | | | |
| Body | SS 316L secondary remelt | SS 316L secondary remelt | Hastelloy alloy C-22 |
| Poppet, nozzle, diaphragm | SS 316L | Hastelloy alloy C-22 | Hastelloy alloy C-22 |
| Finish | electropolished and passivated | electropolished and passivated | electropolished |
| Seat | PCTFE (Vespel® optional) | PCTFE | PCTFE |

All specifications subject to change without notice.
*SHP option Hastelloy poppet and diaphragm only.

Hastelloy® C-22® Haynes Corporation Vespel® DuPont

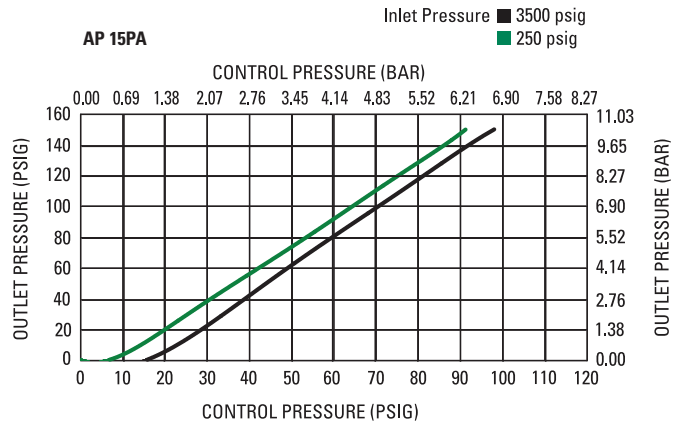
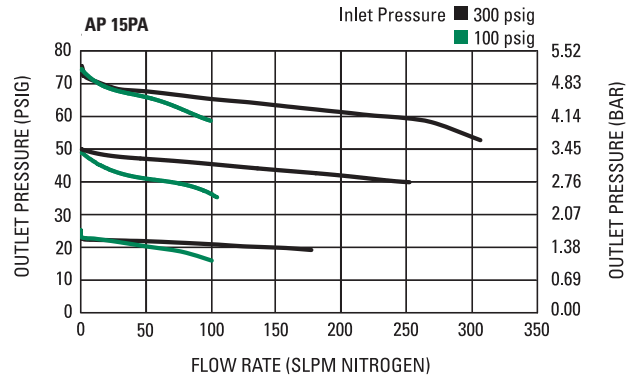
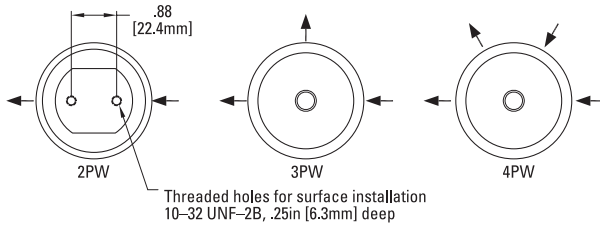
ULTRACLEAN TECHNOLOGY BACKED BY SERVICE AND SUPPORT

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)
 SH = SS/Hastelloy internals
 SHP = SS/Hastelloy poppet diaphragm
 H = Hastelloy alloy C-22

M | Surface Finish Options
 M = 10 μ in. Ra max
 V = 7 μ in. Ra max
 X = 5 μ in. Ra max

4PW | 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

40 1 | 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 female available).

| Options

VS = Vespel seat