



SERIES AZ 1500

TIED DIAPHRAGM REGULATOR

Low Flow — High Pressure

- SS 316L construction
- 10 μ m. surface finish (25 μ m. 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
- Regulator of choice for low flow source cabinet applications

Operating Parameters

| | |
|-------------------|---------------------------------------|
| Source pressure | vacuum to 3,500 psig (241 bar) |
| Delivery pressure | AZ 1502 1 to 30 psig (0.07 to 2 bar) |
| | AZ 1506 2 to 60 psig (0.14 to 4 bar) |
| | AZ 1510 2 to 100 psig (0.14 to 7 bar) |
| | AZ 1515 5 to 150 psig (.34 to 10 bar) |
| Proof pressure | 5,000 psig (345 bar) |
| Burst pressure | 10,000 psig (690 bar) |

Other Parameters

| | |
|-------------------------|--|
| Inlet/outlet connectors | 1/4 or 3/8 inch face seal or tube weld |
| 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 | 10 μ m. (0.25 μ m) Ra avg 25 μ m. (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 or panel (optional) |
| Delivery pressure rise | 0.25 psig per 100 psig source pressure drop |

Materials

| | Series AZ 1500 S | Series AZ 1500 SHP |
|-------------------|--------------------------------|--------------------------------|
| Wetted Parts | | |
| Body, nozzle | SS 316L* | SS 316L* |
| Poppet, diaphragm | SS 316L | Hastelloy® C-22® |
| Finish | electropolished and passivated | electropolished and passivated |
| Seat | PCTFE (Vespel® optional) | PCTFE |

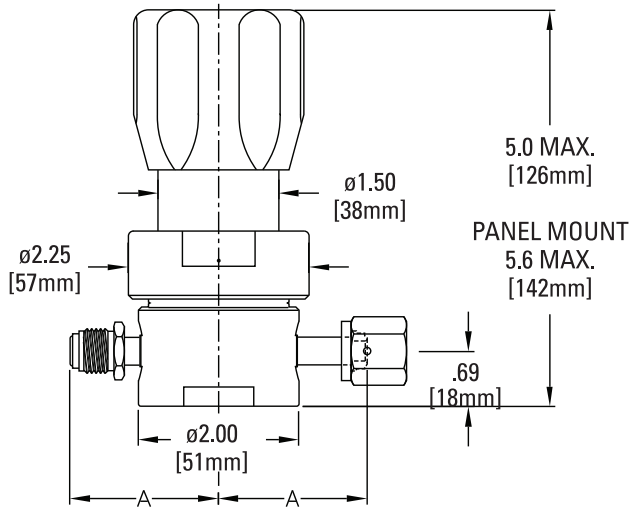
All specifications subject to change without notice.

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

Hastelloy® C-22® Haynes Corporation Vespel® DuPont

ULTRACLEAN BY DESIGN AND MANUFACTURING

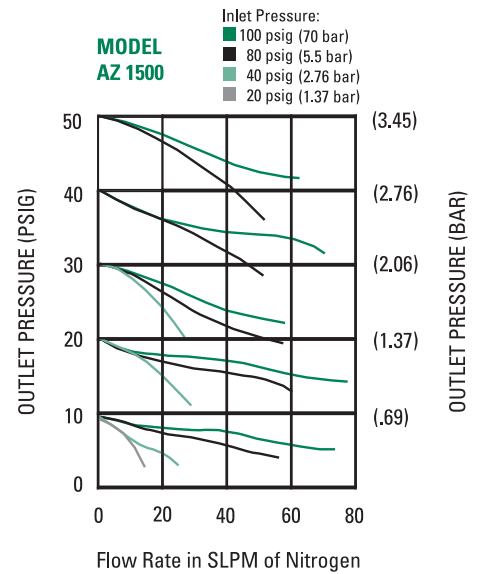
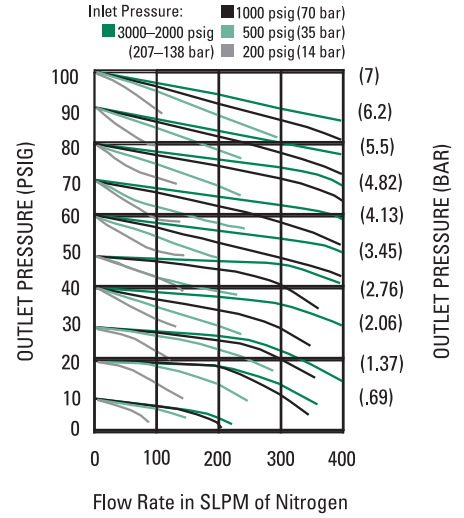
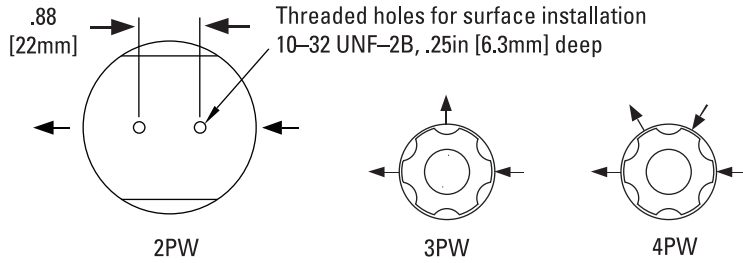
DIMENSIONAL INFORMATION



| Face Seal | A | |
|-----------|-----------|----|
| | in | mm |
| 1/4" | 1.85 ±.01 | 47 |
| 3/8" | 2.35 ±.02 | 60 |

All dimensions in inches (mm).

PORTING CONFIGURATIONS



ORDERING INFORMATION

| | | |
|----------------------------------|---|--|
| Sample Order Number | AZ 1510SQ 2PW FV4 FV4 | |
| AZ 1510 Series | AZ 1502 = 1-30 psig (.07 to 2 bar) AZ 1506 = 2-60 psig (.14 to 4 bar) AZ 1510 = 2-100 psig (.14 to 7 bar) AZ 1515 = 5-150 psig (.34 to 10 bar) | 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 |
| S Material | S = Stainless steel SHP = SS/Hastelloy poppet and diaphragm | Gauges* Source / Delivery 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). |
| Q Surface Finish Option | Q = 25 µin. | Options P = Panel installation** VS = Vespel seat ** Panel hole 1.56" diameter. |
| 2PW Ports | 2PW = 2 ports butt weld 3PW = 3 ports butt weld 4PW = 4 ports butt weld | |