

# SERIES AZ 1300

## SINGLE STAGE REGULATOR

### High Flow Line Regulator



- SS 316L construction
- High flow free poppet design
- 10  $\mu$ m. surface finish (25  $\mu$ m. optional)
- High flow with low particle generation
- Flow rates to 1,000 slpm (35 scfm)
- Line regulator for specialty and bulk gases
- Vacuum to 300 psig (21 bar) inlet
- Knob LOTO (refer to AP KL data sheet)
- Installation and operating instructions available at [www.aptech-online.com](http://www.aptech-online.com) in the Tech Briefs section

#### Operating Parameters

|                   |         |                                |
|-------------------|---------|--------------------------------|
| Source pressure   | AZ 1300 | vacuum to 300 psig (21 bar)    |
| Delivery pressure | AZ 1302 | 1 to 30 psig (0.07 to 2 bar)   |
|                   | AZ 1306 | 2 to 60 psig (0.14 to 4 bar)   |
|                   | AZ 1310 | 2 to 100 psig (0.14 to 7 bar)  |
|                   | AZ 1315 | 5 to 150 psig (0.34 to 10 bar) |
| Proof pressure    |         | 150% of operating pressures    |
| Burst pressure    |         | 300% of operating pressures    |

#### Other Parameters

|                         |                                              |
|-------------------------|----------------------------------------------|
| Inlet/outlet connectors | 1/4, 3/8, 1/2 inch face seal or tube weld    |
| Flow coefficient (Cv)** | 1.1                                          |
| Internal volume         | 1.19 in <sup>3</sup> (19.6 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) optional          |
| Inboard leakage         | 2 x 10 <sup>-10</sup> sccs                   |
| Outboard leakage        | 1 x 10 <sup>-9</sup> sccs He                 |
| Leakage across seat     | 4 x 10 <sup>-8</sup> sccs He                 |
| Installation            | surface or panel (optional)                  |
| Supply pressure effect  | 4.6 psig per 100 psig source pressure change |

\*\*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

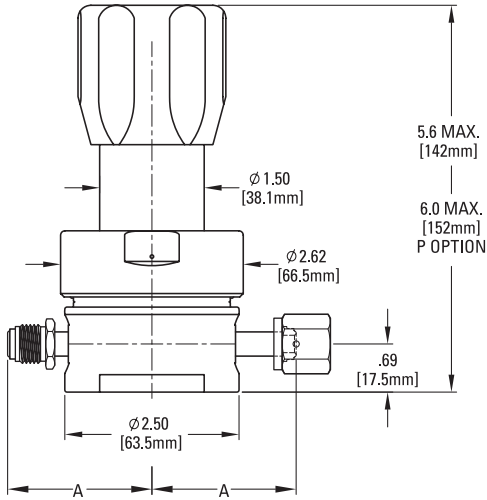
| Series AZ 1300 S |                                |
|------------------|--------------------------------|
| Wetted Parts     |                                |
| Body, nozzle     | stainless steel 316L*          |
| Poppet           | stainless steel 316L           |
| Diaphragm        | Ni-Cr-Mo alloy / UNS N06022    |
| Finish           | electropolished and passivated |
| Seat             | PCTFE (PTFE optional)          |

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

All specifications subject to change without notice.

# SERVICE AND SUPPORT BEYOND COMPARE

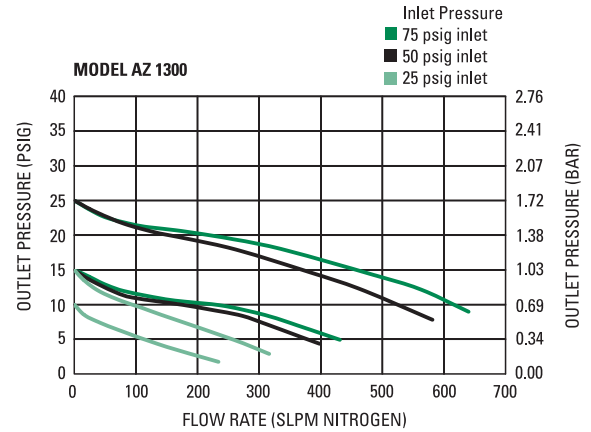
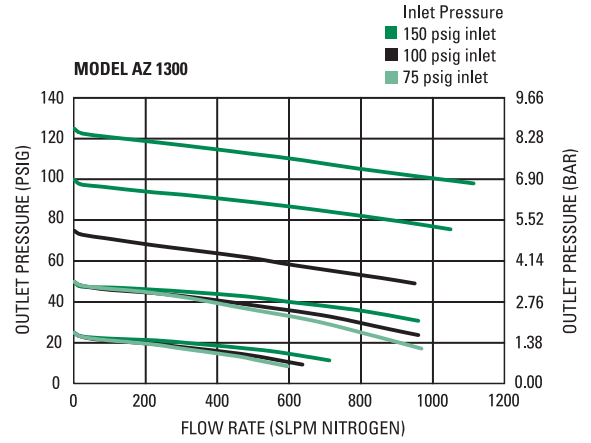
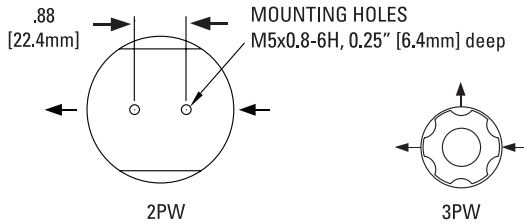
## DIMENSIONAL INFORMATION



| Face Seal  | A         |      |
|------------|-----------|------|
|            | in        | mm   |
| 1/4"       | 2.15 ±.01 | 54.6 |
| 3/8", 1/2" | 2.61 ±.02 | 66.3 |

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                  | AZ 1310SQ 3PW FV8 FV8 V3                                                                                                                                                                                                                 |  |
| AZ 1310   Series                     | AZ 1302 = 1-30 psig (.07 to 2 bar)<br>AZ 1306 = 2-60 psig (.14 to 4 bar)<br>AZ 1310 = 2-100 psig (.14 to 7 bar)<br>AZ 1315 = 5-150 psig (.34 to 10 bar)                                                                                  |  |
| S   Material                         | S = Stainless steel (SS)                                                                                                                                                                                                                 |  |
| Q   Surface Finish Option            | Q = 25 µin. Ra avg.                                                                                                                                                                                                                      |  |
| 3PW   Ports                          | 2PW = 2 ports butt weld<br>3PW = 3 ports butt weld                                                                                                                                                                                       |  |
| FV8 FV8   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>FV8 = 1/2 inch face seal female<br>MV8 = 1/2 inch face seal male<br><br>Tube weld stub available |  |
| V3   Delivery Gauge*                 | 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>H = 30-0-160 psig/bar<br><br>* Standard gauge port is 1/4 inch face seal male (1/4 inch female available).                                     |  |
| P   Options                          | P = Panel installation<br>TF = PTFE seat<br>KL = Knob LOTO<br>(refer to AP KL data sheet)<br>Panel hole 1.56" diameter.                                                                                                                  |  |

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.