

# SERIES AP 1300

## SINGLE STAGE REGULATOR

### High Flow Line Regulator



- SS 316L VAR construction
- High flow free poppet design
- 10 Ra avg surface finish standard
- Flow rates to 1,000 slpm (35 scfm)
- Line regulator for specialty and bulk gases
- Vacuum to 300 psig (21 bar) inlet
- Knob LOTO option (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	AP 1300	vacuum to 300 psig (21 bar)
Delivery pressure	AP 1302	1 to 30 psig (0.07 to 2 bar)
	AP 1306	2 to 60 psig (0.14 to 4 bar)
	AP 1310	2 to 100 psig (0.14 to 7 bar)
	AP 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	15 µin Ra max / 10 µin. Ra avg. (0.4/0.25 µm) standard; 10 µin (0.25 µm); 7 µin (0.18 µm); and 5 µin (0.13 µm) Ra max optional Optional surface finishes meet or exceed 5 µin Ra average
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.

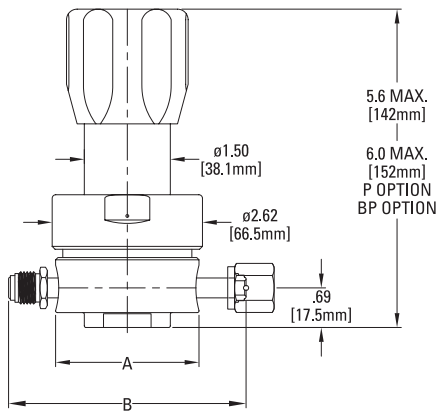
### Materials

Type of Service	Series AP 1300 S Noncorrosive	Series AP 1300 SHP Corrosive
Wetted Parts		
Body	stainless steel 316L secondary remelt	stainless steel 316L secondary remelt
Nozzle	stainless steel 316L	stainless steel 316L
Poppet	stainless steel 316L	Ni-Cr-Mo alloy / UNS N06022
Diaphragm	Ni-Cr-Mo alloy / UNS N06022	Ni-Cr-Mo alloy / UNS N06022
Finish	electropolished and passivated	electropolished and passivated
Seat	PCTFE (PTFE optional)	PCTFE (PTFE optional)

All specifications subject to change without notice.

# SERVICE AND SUPPORT BEYOND COMPARE

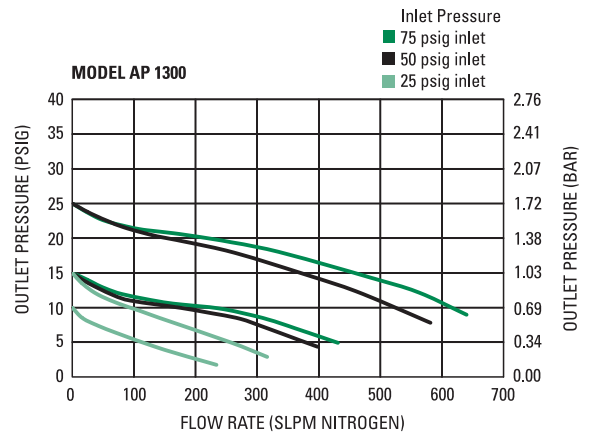
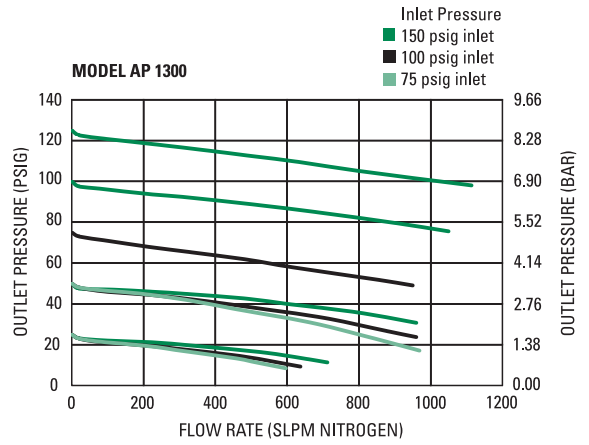
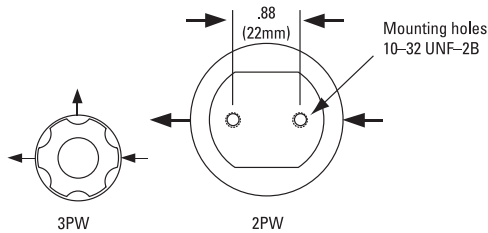
## DIMENSIONAL INFORMATION



Face Seal	A	B
1/4" Male	2.00" (51 mm)	4.00" ±.02 (102 mm)
1/4" Female	2.00" (51 mm)	3.70" ±.02 (94 mm)
3/8"	2.50" (64 mm)	5.22" ±.03 (133 mm)
1/2"	2.50" (64 mm)	5.22" ±.03 (133 mm)
3/4"	2.50" (64 mm)	6.26" ±.04 (159 mm)

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 1310SM 3PW FV8 FV8 1

AP 1310 | Series

AP 1302 = 1-30 psig (.07 to 2 bar)  
 AP 1306 = 2-60 psig (.14 to 4 bar)  
 AP 1310 = 2-100 psig (.14 to 7 bar)  
 AP 1315 = 5-150 psig (.34 to 10 bar)

S | Material

S = Stainless steel (SS)  
 SHP = SS/Ni-Cr-Mo alloy poppet and diaphragm

M | Surface Finish Options

M = 10 μin. Ra max  
 V = 7 μin. Ra max  
 X = 5 μin. Ra max

3PW | Ports

2PW = 2 ports butt weld  
 3PW = 3 ports butt weld

FV8 FV8 | 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  
 FV8 = 1/2 inch face seal female  
 MV8 = 1/2 inch face seal male  
 FV12 = 3/4 inch face seal female  
 MV12 = 3/4 inch face seal male  
 Tube weld stub available

1 | Gauges/Delivery

Standard gauge port is 1/4 inch face seal male (1/4 inch female available).

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

P | Options

P = Panel installation ring  
 TF = PTFE seat  
 SC = Short, single piece bonnet\*  
 KL = Knob LOTO\*

Panel hole 1.56" diameter.  
 \*KL should be ordered with SC option.

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.