



ADVANCED PRESSURE TECHNOLOGY

# SERIES AK 1300 SINGLE STAGE PRESSURE REGULATOR HIGH FLOW LINE REGULATOR



- ◆ Vacuum to 300 psig (21 bar) inlet, 150 psig (10 bar) outlet
- ◆ Flow capacity\*  
1 to 1,000 slpm (0.03 to 35.3 scfm)
- ◆ Stainless Steel or Brass construction
- ◆ High leak integrity
- ◆ Machined from bar stock
- ◆ Optional accessories
- ◆ Fine adjustment control  
(six turns of the knob from off to wide open)
- ◆ Cleaned for O2 service
- ◆ Field repairable
- ◆ Diffusion resistant Ni-Cr-Mo alloy diaphragm
- ◆ 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

## ENGINEERING DATA

### Operating Parameters

Source pressure	vacuum to 300 psig (21 bar)
Delivery pressure	
AK 1302	1 to 30 psig (0.07 to 2 bar)
AK 1310	2 to 100 psig (0.14 to 7 bar)
AK 1315	5 to 150 psig (0.3 to 10 bar)
Proof pressure	150% of operating pressures
Burst pressure	300% of operating pressures

### Other Parameters

Inlet/outlet ports	1/4", 3/8" and 1/2" NPT and compression (optional porting available)
Flow coefficient (Cv)	1.1
Internal volume	0.65 in <sup>3</sup> (10.6 cm <sup>3</sup> )
Operating temperature	-40° to +160°F (-40° to +71°C)**
Leak rate	1 x 10 <sup>-9</sup> sccs
Supply pressure effect	4.6 psig per 100 psig source pressure change

## MATERIALS OF CONSTRUCTION

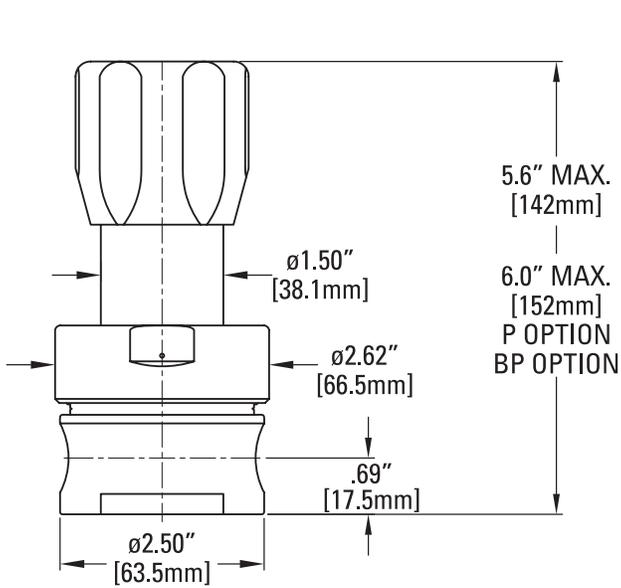
	<b>AK 1300B</b>	<b>AK 1300S</b>
Body	brass	SS 316L
Poppet	SS 316	SS 316
Diaphragm	Ni-Cr-Mo alloy / UNS N06022	Ni-Cr-Mo alloy / UNS N06022
Seat	PCTFE (PTFE optional)	PCTFE (PTFE optional)

\*Flow rating based upon N2 @ 100 psig inlet, varying gas type and, or inlet/outlet pressures will effect rating.

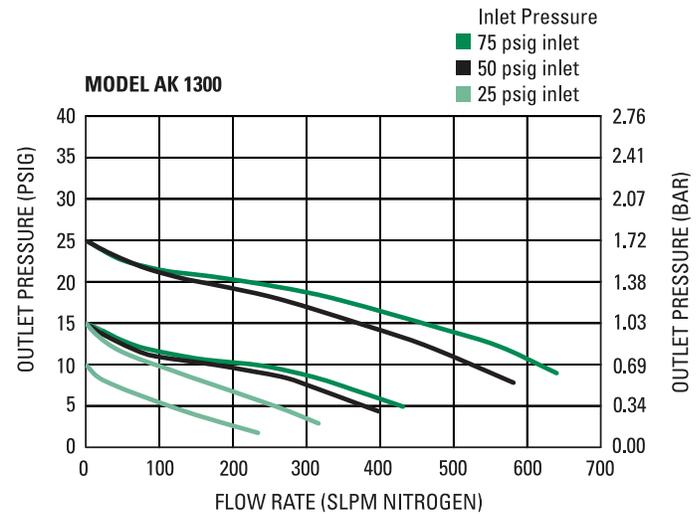
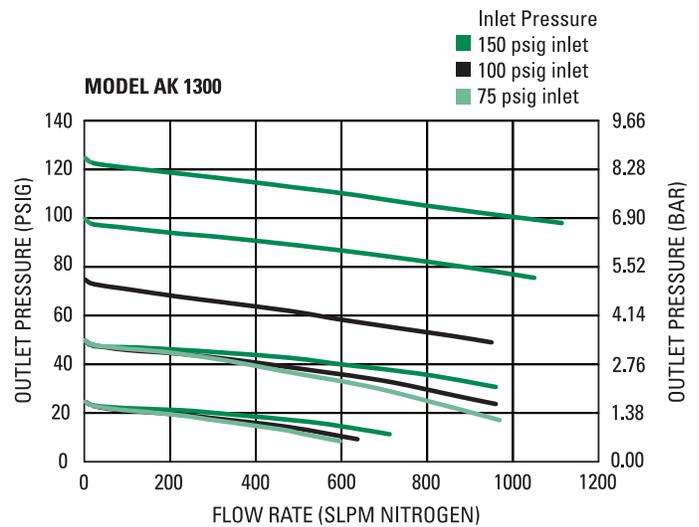
\*\*VS option 14° to 194°F (-10° to +90°C).

All specifications subject to change without notice.

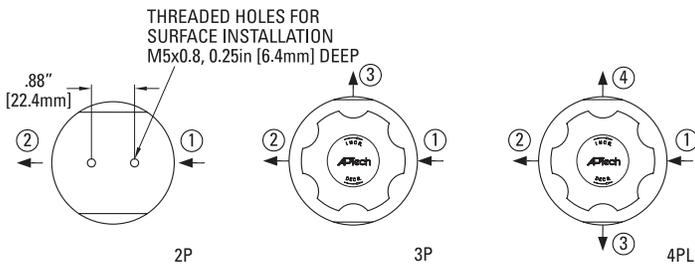
# SERIES AK 1300 — QUALITY, RELIABILITY & PERFORMANCE!



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



## Porting Configurations



**NOTE:** Brass only available with 4PL porting.  
Ports, other than 1 & 2, are only available 1/4 inch NPT.

**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

AK 1302 Series	S Material	4PL Ports	6 ① Ports	6 ② Ports	0 ③ V3 ④ Ports (Gauge/Accessory)	P Options
AK 1302 = 1-30 psig (.07 to 2 bar) AK 1310 = 2-100 psig (.14 to 7 bar) AK 1315 = 5-150 psig (.3 to 10 bar)		2P = 2 Ports 3P = 3 Ports 4PL = 4 Ports	4 = 1/4 inch NPT 6 = 3/8 inch NPT 8 = 1/2 inch NPT 4T = 1/4 inch comp 6T = 3/8 inch comp 8T = 1/2 inch comp		0 = No gauge or device installed V3 = 30-0-30 psig/bar 1 = 30-0-100 psig/bar 2 = 0-200 psig/bar	P = Panel installation* BP = Threaded Bonnet Port TF = PTFE seat KL = Knob LOTO (refer to AP KL data sheet)
S = Stainless steel (SS) B = Brass						*On panel mount option, bonnet port is not threaded. Panel hole 1.56 inch diameter.

**NOTE:** Designators required for all ports, but "0" not required if there isn't a port. A 2P has designators only for ① & ② ports, as example AK 1310 S 2P 44 not AK 1310 S 2P 44 000.

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.

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