

SERIES AK 1000 SINGLE STAGE PRESSURE REGULATOR QUALITY, RELIABILITY AND PERFORMANCE

- Vacuum to 3,500 psig (241 bar) inlet, 500 psig (35 bar) outlet
- Flow capacity*
 0 to 100 slpm (0 to 3.5 scfm) HF Option
- Stainless Steel or Brass construction
- Ni-Cr-Mo alloy internals, 'SH' option, for added corrosion resistance
- 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 Stainless Steel diaphragm
- Installation and operating instructions available at <u>www.aptech-online.com</u> in the Tech Briefs section



ENGINEERING DATA

Operating Parameters

J	-		
Source pressure	vacuum to 3,500 psig (241 bar)		
	(AK1001, 300 psig [21 bar] max)		
Delivery pressure	0.5 to 10 psig (0.03 to 0.7 bar) AK 1001		
	1 to 30 psig (0.07 to 2 bar) AK 1002		
	2 to 100 psig (0.14 to 7 bar) AK 1010		
	5 to 200 psig (0.3 to 14 bar) AK 1020		
	5 to 300 psig (0.3 to 21 bar) AK 1030		
	**10 to 500 psig (0.7 to 35 bar) AK 1050		
Proof pressure	4,500 psig (307 bar)		
Burst pressure	10,000 psig (690 bar)		
Other Parameters			
Inlet /outlet ports	1/4" NPT; 1/4" & 3/8" compression (optional porting available)		

Flow coefficient, Cv Internal volume Operating temperature Leak rate Supply pressure effect 1/4" NPT; 1/4" & 3/8" compression (optional porting available)
0.09 (HF option 0.15)
0.49 in³ (8 cm³)
-40 to +160F (-40 to +71C)***
1 x 10⁻⁹ sccs
0.25 psig per 100 psig source pressure change (HF 0.75 psi per 100 psig)

MATERIALS OF CONSTRUCTION

Body Poppet and diaphragm Seat Bonnet AK 1000B brass SS 316 PCTFE (Polyimide and PEEK Opt) SS 303 AK 1000S SS 316 SS 316 PCTFE (Polyimide and PEEK Opt) SS 303 AK 1000SH SS 316 Ni-Cr-Mo alloy / UNS N06022 PCTFE (PEEK 0pt) SS 303

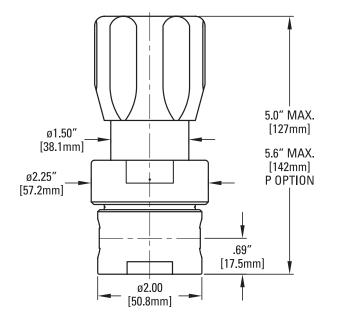
* Flow rating based upon N2 @ 100 psig inlet, varying gas type and, or inlet/outlet pressures may effect rating.

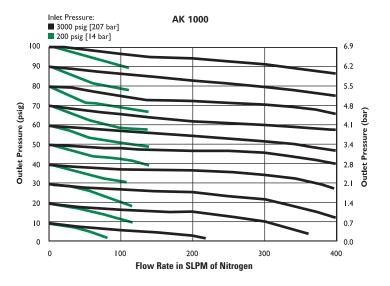
** AK 1050 and panel mount height dimension different

*** Optional temperature ranges available. Please contact factory.

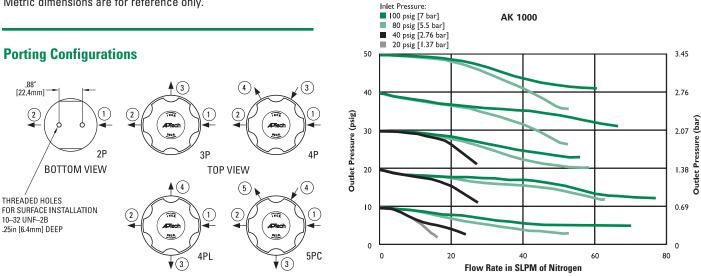
All specifications subject to change without notice.

/=Tech — Products and service that exceed expectations





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



NOTE: Not all porting configurations available in brass.

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 1002	S	3P	4 4	0	Р	
Series	Material	Port	12	345	Options	
		Configuration	Ports	Ports (Gauge/Accessory)		
AK 1001= 0.5-10 psig (.03 to .7 bar)		2P = 2 Ports	4 = 1/4 inch NPT	0 = No gauge or	P = Panel installation*	
AK 1002= 1-30 psig (.07 to 2 bar)		3P = 3 Ports	4T = 1/4 inch	device installed	CGA = Inlet fitting	
AK 1010= 2-100 psig (.14 to 7 bar)		4P = 4 Ports	compression	V3 = 30-0-30 psig/bar	320, 330, 350,	
AK 1020= 5-200 psig (.3 to 14 bar)		4PL = 4 Ports	6T = 3/8 inch	1 = 30-0-100 psig/bar	580, 660, 678	
AK 1030= 5-300 psig (.3 to 21 bar)		5PC = 5 Ports	compression	2 = 0-200 psig/bar	VS = Polyimide seat	
AK 1050= 10-500 psig (.7 to 35 bar)	ļ			10 = 0-1000 psig/bar	PK = PEEK seat	
S = Stainless steel (SS)				40 = 0-4000 psig/bar	HF = High flow	
SH = SS with Ni-Cr-Mo alloy intern	als		NOTE: Designators required for all ports, but "0" not required			
B = Brass			if there isn't a port. A 2P has designators only for ①&② ports, *Panel hole 1.42 diameter as example AK 1010 S 2P 44 not AK 1010 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.