



ADVANCED PRESSURE TECHNOLOGY

# SERIES AK 1000T SINGLE STAGE PRESSURE REGULATOR COST EFFECTIVE HIGH PERFORMANCE



- ◆ Vacuum to 3,500 psig (241 bar) inlet, 150 psig (10 bar) outlet
- ◆ Flow capacity\* 0 to 100 slpm (0 to 3.5 scfm)
- ◆ Stainless Steel construction
- ◆ Ni-Cr-Mo alloy internals, 'SHP' option, for added corrosion resistance
- ◆ High leak integrity
- ◆ Body machined from bar stock
- ◆ Optional accessories
- ◆ Fine adjustment control
- ◆ Cleaned for O2 service
- ◆ Diffusion resistant Stainless Steel 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 3,500 psig (241 bar) (AK 1001T, 300 psig [21 bar] max)
Delivery pressure	AK 1001T 0.5 to 10 psig (0.035 to 0.7 bar) AK 1002T 1 to 30 psig (0.07 to 2 bar) AK 1006T 1 to 60 psig (0.07 to 4 bar) AK 1010T 2 to 100 psig (0.14 to 7 bar) AK 1015T 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" NPT; 1/4" BSPT; 1/4" & 3/8" compression
Flow coefficient, Cv***	0.15
Internal volume	0.3 in <sup>3</sup> (4.8 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	1 psig per 100 psig source pressure change

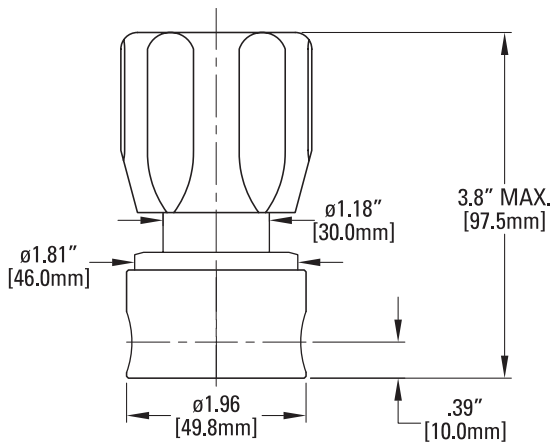
## MATERIALS OF CONSTRUCTION

	<b>AK 1000TS</b>	<b>AK 1000TSHP</b>
Body	SS 316L	SS 316L
Poppet and diaphragm	SS 316	Ni-Cr-Mo alloy / UNS N06022
Seat	PCTFE (Polyimide optional)	PCTFE
Bonnet	SS 303	SS 303

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

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

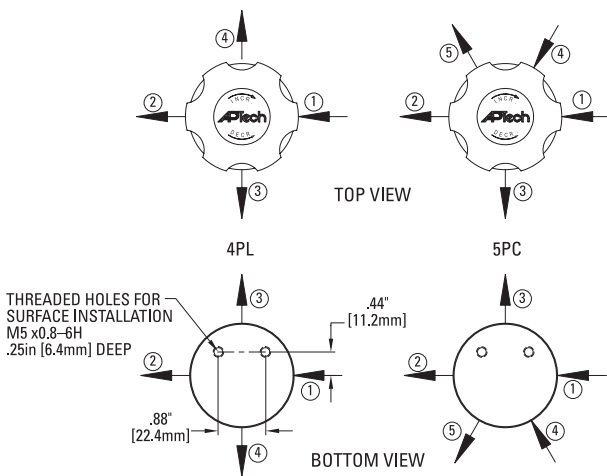
\*\*\*A pressure regulator Cv is a nominal value which indicates the point of choked flow. Please refer to a flow curve or a recommendation guide for usable flow range. All specifications subject to change without notice.



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

Please refer to installation and operating instructions for surface and panel mounting options.

### Porting Configurations



Refer to installation and operating instruction for surface mounting bracket.

**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 1002T Series	S Material	4PL Port Configuration	4 4 ① ② Ports	0 0 ③ ④ ⑤ Ports (Gauge/Accessory)	VS Options
AK 1001T = 0.5-10 psig (.03 to .7 bar) AK 1002T = 1-30 psig (.07 to 2 bar) AK 1006T = 1-60 psig (.07 to 4 bar) AK 1010T = 2-100 psig (.14 to 7 bar) AK 1015T = 5-150 psig (.3 to 10 bar)		4PL = 4 Ports 5PC = 5 Ports	4 = 1/4 inch NPT 4T = 1/4 inch compression 4BR = 1/4 inch BSPT 6T = 3/8 inch compression	0 = No gauge or device installed V3 = 30-0-30 psig/bar* 1 = 30-0-100 psig/bar* 2 = 0-200 psig/bar* 40 = 0-4000 psig/bar*	VS = Polyimide seat KL = Knob LOTO (refer to AP KL data sheet)
<p>S = Stainless steel (SS) SHP = SS with Ni-Cr-Mo alloy diaphragm and poppet</p> <p><b>NOTE:</b> Designators required for all ports, but "0" not required if there isn't a port. *Gauges are only available 1/4 inch NPT, BSPT not available.</p>					

