

SERIES AK 1500 SINGLE STAGE PRESSURE REGULATOR TIED DIAPHRAGM—BUILT FOR SAFETY

- ◆ Vacuum to 3,500 psig (241 bar) inlet, 150 psig (10 bar) outlet
- ◆ Flow capacity*
0 to 30 slpm (0 to 1 scfm)
- ◆ Stainless Steel or Brass construction
- ◆ Hastelloy® C-22® 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 www.aptech-online.com in the Tech Briefs section



ENGINEERING DATA

Operating Parameters

Source pressure	vacuum to 3,500 psig (241 bar)
Delivery pressure	1 to 30 psig (0.07 to 2 bar) AK 1502 2 to 100 psig (0.14 to 7 bar) AK 1510 5 to 150 psig (0.35 to 10 bar) AK 1515
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
Flow coefficient, Cv	0.09
Internal volume	0.49 in ³ (8 cm ³)
Operating temperature	-40 to +160F (-40 to +71C)**
Leak rate	1 x 10 ⁻⁹ sccs
Delivery pressure rise	0.25 psig per 100 psig source pressure drop

MATERIALS OF CONSTRUCTION

	AK 1500B
Body	brass
Poppet and diaphragm	SS 316
Seat	PCTFE (VespeI®, PEEK Opt.)
Bonnet	SS 303

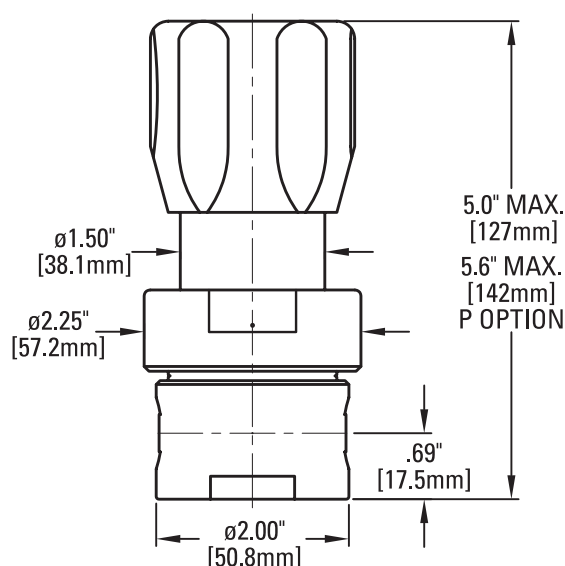
	AK 1500S
SS 316	
SS 316	
PCTFE (VespeI, PEEK Opt.)	
SS 303	

	AK 1500SH
SS 316	
Hastelloy C-22	
PCTFE (PEEK Opt.)	
SS 303	

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

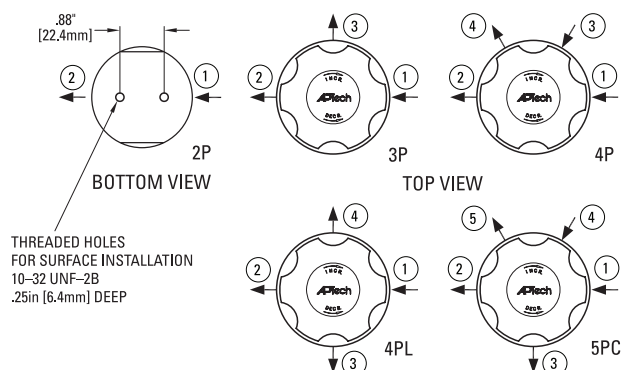
** Optional temperature ranges available. Please consult factory.

All specifications subject to change without notice.
Hastelloy® C-22® Haynes Corporation
VespeI® DuPont

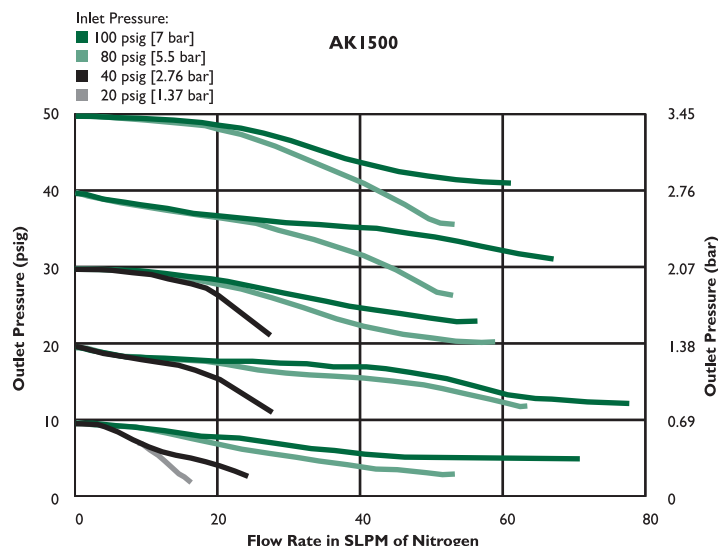
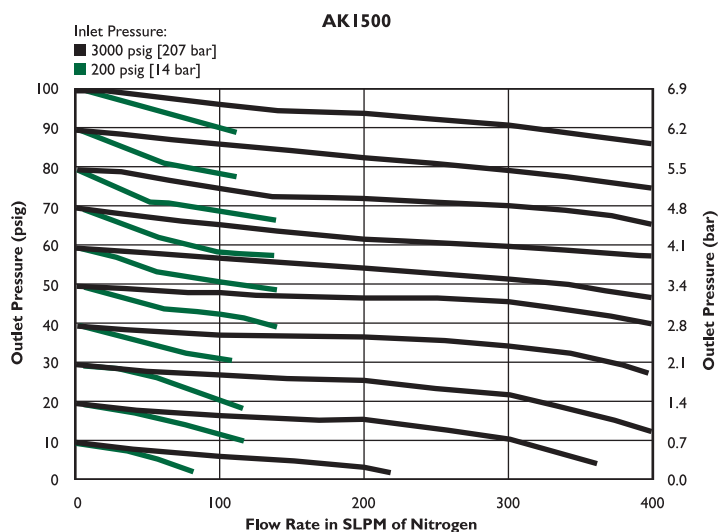


All dimensions in inches.
Metric dimensions (mm) are for reference only.

Porting Configurations



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 1510 Series	S Material	5PC Port Configuration	4 4 Ports	0 40 1 Ports (Gauge/Accessory)	P Options
AK 1502 = 1-30 psig (.07 to 2 bar) AK 1510 = 2-100 psig (.14 to 7 bar) AK 1515 = 5-150 psig (.35 to 10 bar)		2P = 2 Ports 3P = 3 Ports 4P = 4 Ports 4PL = 4 Ports 5PC = 5 Ports	① ② 4 = 1/4 inch NPT 4T = 1/4 inch compression 6T = 3/8 inch compression	③ ④ ⑤ 0 = No gauge or device installed V3 = 30-0-30 psig/bar 1 = 30-0-100 psig/bar 2 = 0-200 psig/bar 10 = 0-1000 psig/bar 40 = 0-4000 psig/bar	VS = Vespel seat PK = PEEK seat P = Panel installation* CGA = Inlet fitting 320, 330, 350, 580, 660, 678
S = Stainless steel (SS) SH = SS with Hastelloy internals B = Brass					*Panel hole 1.42 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 1510 S 2P 44 not AK 1510 S 2P 44 000.