



ADVANCED PRESSURE TECHNOLOGY

SERIES AK 1200 SINGLE STAGE PRESSURE REGULATOR TIED DIAPHRAGM—DESIGNED FOR SAFETY



- ◆ Vacuum to 1,700 psig (117 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
- ◆ 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
- ◆ Knob LOTO option
- ◆ Diffusion resistant Ni-Cr-Mo alloy diaphragm
- ◆ Installation and operating instructions available at www.aptech-online.com

ENGINEERING DATA

Operating Parameters

Source pressure	vacuum to 1,700 psig (117 bar)
FC option	vacuum to 300 psig (21 bar)
HR option	vacuum to 3,000 psig (207 bar)
Delivery pressure	AK 1202* 1 to 30 psig (0.07 to 2 bar)
	AK 1210 2 to 100 psig (0.14 to 7 bar)
	AK 1215** 5 to 150 psig (0.3 to 10 bar)
	AK 1225 250 psig (17 bar) preset (preset at 800 psig inlet, NA FC)
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 ^{††}	0.9 (HF option 1.1)
Internal volume	0.65 in ³ (10.6 cm ³)
Operating temperature	-40° to +160°F (-40° to +71°C)***
Leak rate	1 x 10 ⁻⁹ sccs
Supply pressure effect	3.5 psig per 100 psig source pressure change

MATERIALS OF CONSTRUCTION

	AK 1200B	AK 1200S	AK 1200SH
Body	brass	SS 316L	SS 316L
Poppet	SS 316	SS 316	Ni-Cr-Mo alloy / UNS N06022
Diaphragm	Ni-Cr-Mo alloy / UNS N06022	Ni-Cr-Mo alloy / UNS N06022	Ni-Cr-Mo alloy / UNS N06022
Seat	PCTFE (Polyimide opt.)	PCTFE (Polyimide opt.)	PCTFE

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

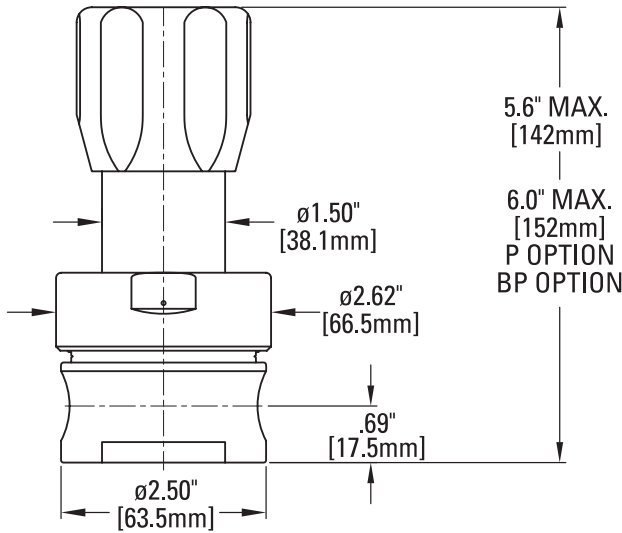
^{††}A pressure regulator Cv is a nominal value which indicates the point of choked flow. Please refer to a flow curve or a recommendation guide for usable flow range.

*AK 1202 not available with FC or HR options.

**AK 1215 will not achieve full outlet pressure rating at all inlet pressures.

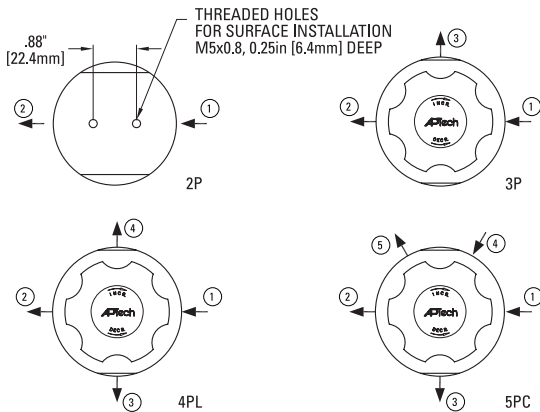
***Optional temperature ranges available. Please consult factory. VS option 14° to 194°F (-10° to + 90°C).
All specifications subject to change without notice.

SERIES AK 1200 — QUALITY, RELIABILITY & PERFORMANCE!



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

Porting Configurations



NOTE: Brass only available with 4PL or 5PC porting.
Ports, other than 1 & 2, are only available 1/4 inch NPT.

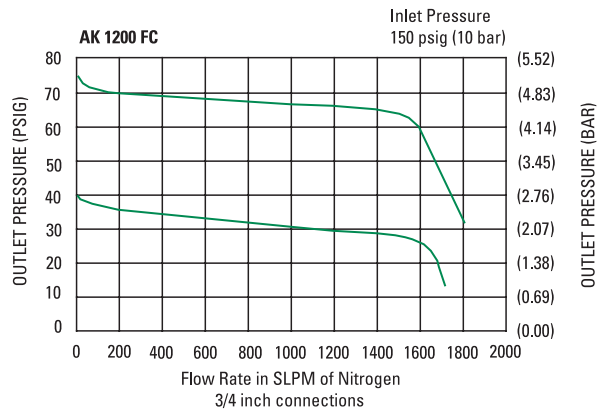
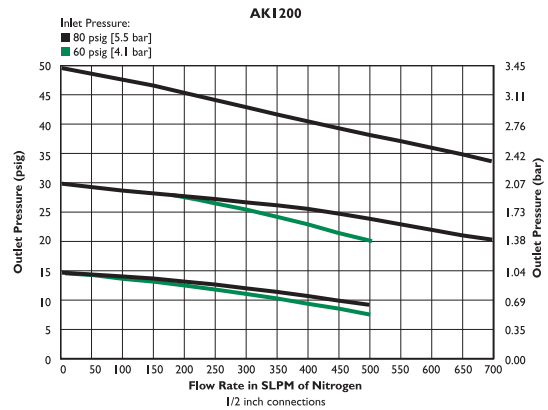
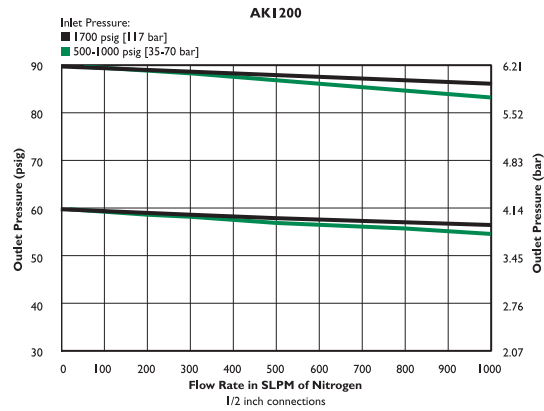
CAUTION: Product selection is the sole responsibility of the user, regardless of any recommendations or suggestions made by the factory. The user shall make selections based upon their own analysis and testing with regard to function, material compatibility and product ratings. Proper installation, operation and maintenance are also required to assure safe, trouble free performance.

ORDERING INFORMATION

AK 1202 Series	S Material	4PL Ports	6 ① 6 ② Ports	0 V3 ③ ④ ⑤ Ports (Gauge/Accessory)	P Options
AK 1202 = 1-30 psig (.07 to 2 bar)		2P = 2 Ports	4 = 1/4 inch NPT	0 = No gauge or device installed	P = Panel installation**
AK 1210 = 2-100 psig (.14 to 7 bar)		3P = 3 Ports	6 = 3/8 inch NPT	V3 = 30-0-30 psig/bar	CGA = Inlet fitting 320, 330, 326, 660, 678
AK 1215 = 5-150 psig (.3 to 10 bar)		4PL = 4 Ports	8 = 1/2 inch NPT	1 = 30-0-100 psig/bar	VS = Polyimide seat
AK 1225 = 250 psig (17 bar) preset		5PC = 5 Ports	4T = 1/4 inch comp	2 = 0-200 psig/bar	*FC = Force compensation
	S = Stainless steel (SS)		6T = 3/8 inch comp	10 = 0-1000 psig/bar	*HF = High flow
	SH = SS with Ni-Cr-Mo alloy internals		8T = 1/2 inch comp	40 = 0-4000 psig/bar	*HR = High inlet pressure
	B = Brass				KL = Knob LOTO (refer to AP KL data sheet)

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 1210 S 2P 44 not AK 1210 S 2P 44 000.

*FC, HF and HR options are only available separately. These options may not be combined.
**Panel hole 1.56 inch diameter.



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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