



SERIES AP 20

MINIATURE SINGLE STAGE REGULATOR

Ultra Compact / Ultra Clean

- Surface mount (IGS) or face seal connections
- Stainless steel 316L VAR secondary remelt construction
- Ultra-compact size with low internal volume
- Vacuum to 150 psig (10 bar) inlet
- 5 slpm flow capacity
- Sub-atmospheric to low positive pressure delivery*
- Installation and operating instructions available at www.aptech-online.com in the Tech Briefs section

Operating Parameters

Source pressure	vacuum to 150 psig (10 bar)
Delivery pressure	AP 201A: 100 mm Hg absolute to 10 psig (0.7 bar)
	AP 202: 0.5 to 30 psig (0.034 to 2 bar)
	AP 206: 1 to 60 psig (0.07 to 4 bar)
	AP 210: 1 to 100 psig (0.07 to 7 bar)
Proof pressure	150% of operating pressures
Burst pressure	300% of operating pressures

Other Parameters

Inlet/outlet connectors	1/4 inch face seal, tube weld, or IGS
Flow coefficient (Cv)	0.035
Internal volume	0.07 in ³ (1.21 cm ³)
Operating temperature	-40° to +160°F (-40° to +71°C)**
Surface finish	15 µin Ra max / 10 µin. Ra avg. (0.4/0.25 µm) standard; 10 µin (0.25 µm); 7 µin (0.18 µm); and 5 µin (0.13 µm) Ra max optional
Inboard leakage	2 x 10 ⁻¹⁰ sccs
Outboard leakage	2 x 10 ⁻⁹ sccs He at 100 psig inlet pressure
Leakage across seat	4 x 10 ⁻⁸ sccs He at 100 psig inlet pressure
Supply pressure effect	0.3 psig per 20 psig source pressure change*
Installation	Surface

Materials

	Series AP 20 S Noncorrosive	Series AP 20 SHP Corrosive
Type of Service		
Wetted Parts		
Body	SS 316L secondary remelt	SS 316L secondary remelt
Poppet/diaphragm	SS 316L / Ni-Co alloy / UNS R30003	Ni-Cr-Mo alloy / UNS N06022 / Ni-Co alloy / UNS R30003
Finish	electropolished and passivated	electropolished and passivated
Seat	PCTFE (Polyimide and PTFE optional)	PCTFE (PTFE optional)

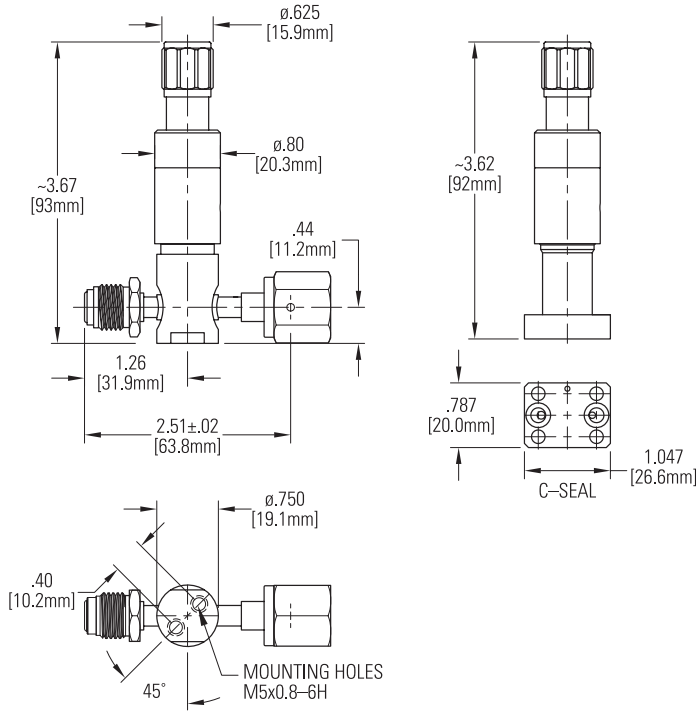
*Absolute pressure not available with HF option.

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

All specifications subject to change without notice.

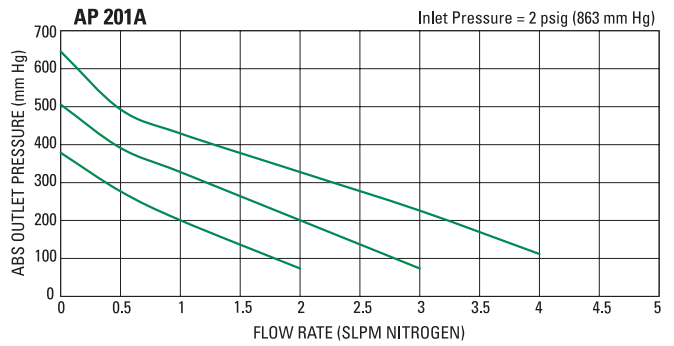
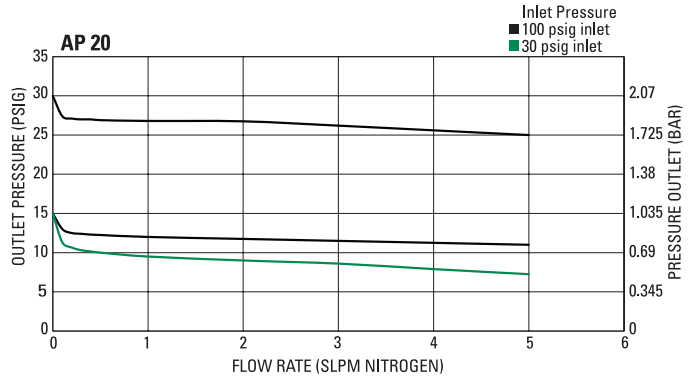
SERVICE AND SUPPORT BEYOND COMPARE

DIMENSIONAL INFORMATION



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

PORTING CONFIGURATIONS



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

Sample Order Number

AP 210SM 2PW FV4 FV4

AP 210 | Series

AP 201 = 0.5-10 psig (0.034 to 0.7 bar)
 AP 202 = 0.5-30 psig (0.034 to 2 bar)
 AP 206 = 1-60 psig (0.07 to 4 bar)
 AP 210 = 1-100 psig (0.07 to 7 bar)

S | Material

S = Stainless steel (SS)
 SHP = SS / Ni-Cr-Mo alloy internals

M | Surface Finish Options

M = 10 μ in. Ra max
 V = 7 μ in. Ra max
 X = 5 μ in. Ra max

Range Options

A = 100 mm Hg absolute to 10 psig (AP 201 only)

2PW | Ports

2PW = 2 ports welded
 2P = 2 ports IGS (C seal only)

Consult factory for other porting options.

FV4 FV4 | Connections Inlet / Outlet

FV4 = 1/4 inch face seal female
 MV4 = 1/4 inch face seal male
 FE = C seal (IGS)

FE only listed once in model number, not twice like a fitting.

Options

VS = Polyimide seat
 TF = PTFE seat

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.