

HPT 270/280 Two-Stage



The HPT 270 high purity two stage regulators are designed to control high purity, non corrosive, pure gases and mixtures in applications where constant delivery pressures regardless of fluctuations in tank pressure are required. The materials of construction will not contaminate the gas stream, and the regulators are highly resistant to inboard diffusion of atmospheric contaminants. A diffusion resistant diaphragm valve is installed in the outlet.

The 270 can be used for non-flammable and non-corrosive gases. The 272 can be used for high pressure flammable gases. The 280 and 281 can be used with acetylene and LP gas, respectively, with a maximum inlet pressure of 350 psig.

HPT 270/280 FEATURES

- 1.5" Stainless steel diaphragm on first stage
- 2.75" Stainless steel diaphragm on second stage
- 2.5" Dual scale gauges
- Cartridge type seat assembly - first stage
Stem type - second stage
- Diffusion resistant outlet valve
- Self reseating relief valve (vented)
(not designed to protect downstream apparatus)
- Chrome plated body, housing cap, fittings and gauges
- Panel mount kit available

MATERIALS OF CONSTRUCTION

Body.....	Chrome plated forged brass
Spring housing cap.....	Chrome plated forged brass
Diaphragm.....	301 Stainless Steel
Nozzle.....	Brass
Seats.....	1st Stage PCTFE™ 2nd Stage Viton™
Seals.....	Viton™
Filter.....	Cartridge - Brass Inlet - 10 Micron rating Stainless Steel
Seat Return Spring.....	Stainless Steel
Pressure Adjusting Spring.....	Heat treated spring steel
Adjusting Knob.....	Acrylonitrile Butadiene Styrene

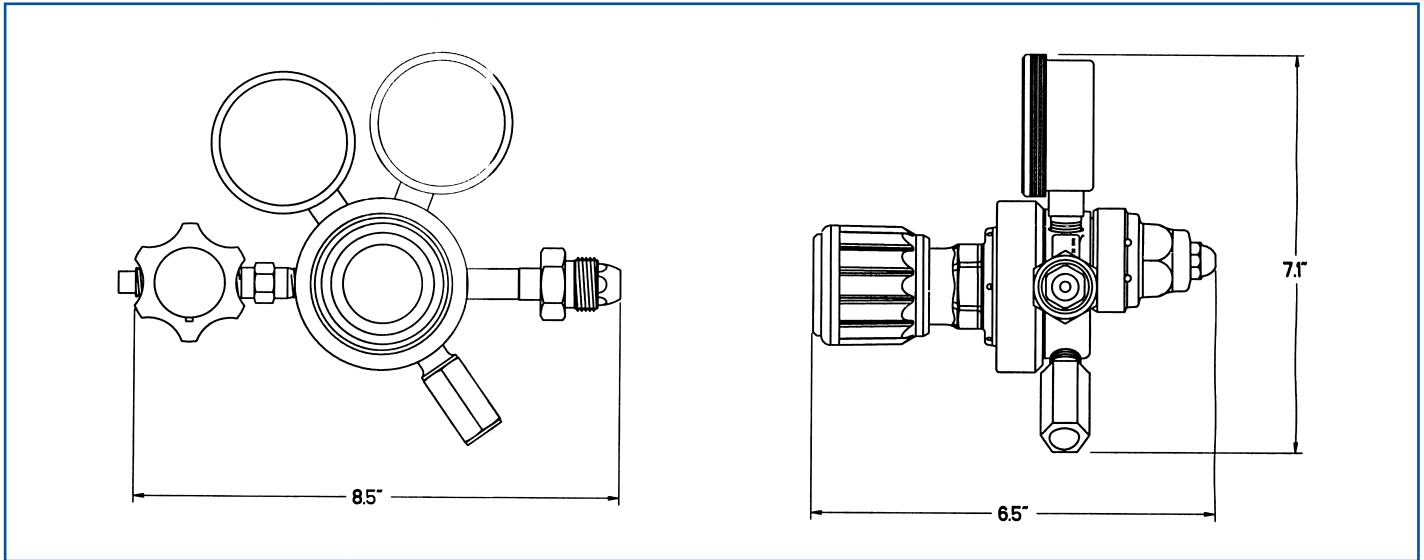
HPT 270/280 SPECIFICATIONS

Maximum inlet pressure.....	(HPT 270/272) 3000 psig (HPT 280/281) 350 psig
Outlet ranges.....	15 (2-15 psig), 40 (2-40 psig) 80 (4-80 psig), 125 (5-125 psig)
Valve outlet.....	1/4" NPT (F)
Temperature Operating Range.....	0 to 140°F (-17 to 60°C)
Outlet pressure rise.....	Less than .1 psig per 100 psig inlet decay
Flow coefficient.....	C _v = .04
Production models are tested to	1 x 10 ⁻⁸ scc/sec inboard helium leak rate

HPT 270/280 TYPICAL APPLICATIONS

- High-Purity Gas Handling
- Gas Chromatography
- Zero Gases, Span Gases, and Calibration Mixtures
- Research Sampling Systems
- Laser Gas Systems
- Process Analyzers

Two-Stage **HPT 270/280**



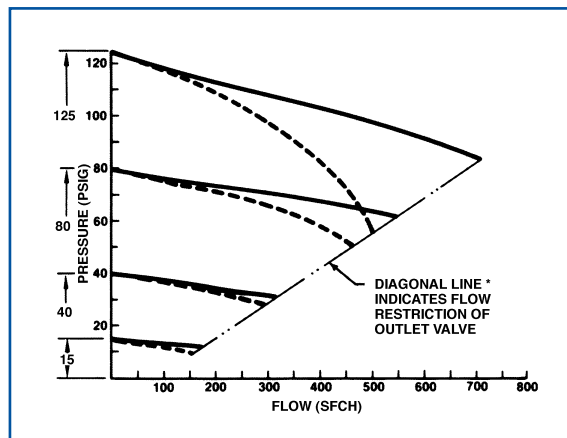
HPT 270 PERFORMANCE DATA

Flow vs Outlet Pressure

Inlet Pressure
(Air @ 70°F)

———— 2000 PSIG
- - - - 250 PSIG

*Tested with outlet valve full open & outlet pressure taken at regulator L.P. gauge port



ORDERING: MODEL NUMBER SYSTEM

XXX	-	XXX	-	XXX	-	XXX	-	XX	-	XX
Base Regulator		Series		Delivery Pressure		Inlet Fitting		Outlet Fitting		Options
HPT		270		15 - 2-15		320 - CGA 320		BV - Shut-off valve 1/4"		00 - Bare body
		272		40 - 2-40		326 - CGA 326		DK - DRK valve 1/4"		01 - Cross purge
		280		80 - 4-80		346 - CGA 346		4M - 1/4" Male NPT		02 - Helium Leak Certification
		281		125 - 5-125		540 - CGA 540		4F - 1/4" Female NPT		03 - Certification
						580 - CGA 580		2S - 1/8" Swagelok®		06 - W/O Gauge
						590 - CGA 590		4S - 1/4" Swagelok®		07 - W/O relief Valve
						4F - 1/4" FNPT		FM - Flowmeter		15 - Panel mount kit
						4M - 1/4" MNPT				
						2S - 1/8" Swagelok®				
						4S - 1/4" Swagelok®				

Ordering Examples:
HPT-272-125-350-DK
 HPT 272 regulator w/ 125 psi delivery pressure
 CGA 350 inlet fitting, 1/4" Diffusion Resistant Valve outlet fitting
 No options selected

HPT-270-200-590-4S-15
 HPT 270 regulator w/ 200 psi delivery pressure
 CGA 590 inlet fitting, 1/4" Swagelok® outlet fitting
 Panel mount kit option