

SGT 500 Two-Stage Cylinder Regulator



The SGT 500 stainless steel two stage regulators are recommended for ultra high purity, corrosive or toxic gas applications where constant delivery pressure is required as inlet pressure decreases.

The materials of construction will not off-gas and contaminate the gas stream. The design is highly resistant to inboard diffusion of atmospheric contaminants. A diffusion resistant, packless diaphragm valve is optional.

These regulators are highly recommended for critical high purity and OEM applications. They are able to withstand internal vacuums generated during purging operations. The SGT 500 incorporates advanced design features for maximum safety and ease of installation in complex piping systems.

SGT 500 FEATURES

- Metal-to-metal diaphragm seal.
- Helium leak rate of 1×10^{-9} scc/sec. All high purity regulators are inboard leak checked with a helium mass spectrometer before shipment.
- 1.6" (4.1 cm) 316L stainless steel diaphragm for minimal footprint in complex gas systems.
- 2" dual scale gauges.
- Cartridge type seat assembly with 10 micron inboard filter.
- 2" stainless steel bar stock body with 6 ports: 3 high pressure, 2 low, 1 intermediate for maximum installation flexibility.
- Available fully configured for cylinder, OEM or bare-body for custom installation.
- Rotating captured vent for remote venting in the unlikely event of diaphragm failure. (optional)
- Housing cap is threaded for easy panel mounting.
- Relief valve on intermediate stage
- New control knob allows precise setting for maximum delivery and locking is easily attained by pressing in the cap.

MATERIALS OF CONSTRUCTION

Body	316L Stainless Steel bar stock
Spring housing cap.....	Chrome-plated Brass
Diaphragm	316L Stainless Steel
Nozzle	316L Stainless Steel bar stock
Seat.....	PCTFE™
Seals.....	Teflon™
Poppet	316L Stainless Steel
Inboard Filter	10 Micron Sintered S.S.
Seat Return Spring	316L Stainless Steel
Pressure Adjusting Spring	Heat-treated Spring Steel
Adjusting Knob	Acrylonitrile Butadiene Styrene

SGT 500 SPECIFICATIONS

Maximum inlet pressure3000 psig

NEW IN 2000 Capable of 300 BAR inlet pressure with 4F inlet option

Outlet pressure ranges15 (2-15 psig)

40 (2-40 psig) 80 (4-80 psig)

125 (5-125 psig) 200 (10-200 psig)

300 (10-300 psig) 500 (20-500 psig)

Inlet & outlet ports.....1/4" NPT (F)

Temperature Operating Range.....-40 to 140°F (-40 to 60°C)

Outlet pressure riseLess than .07 psig per
100 psig inlet decay

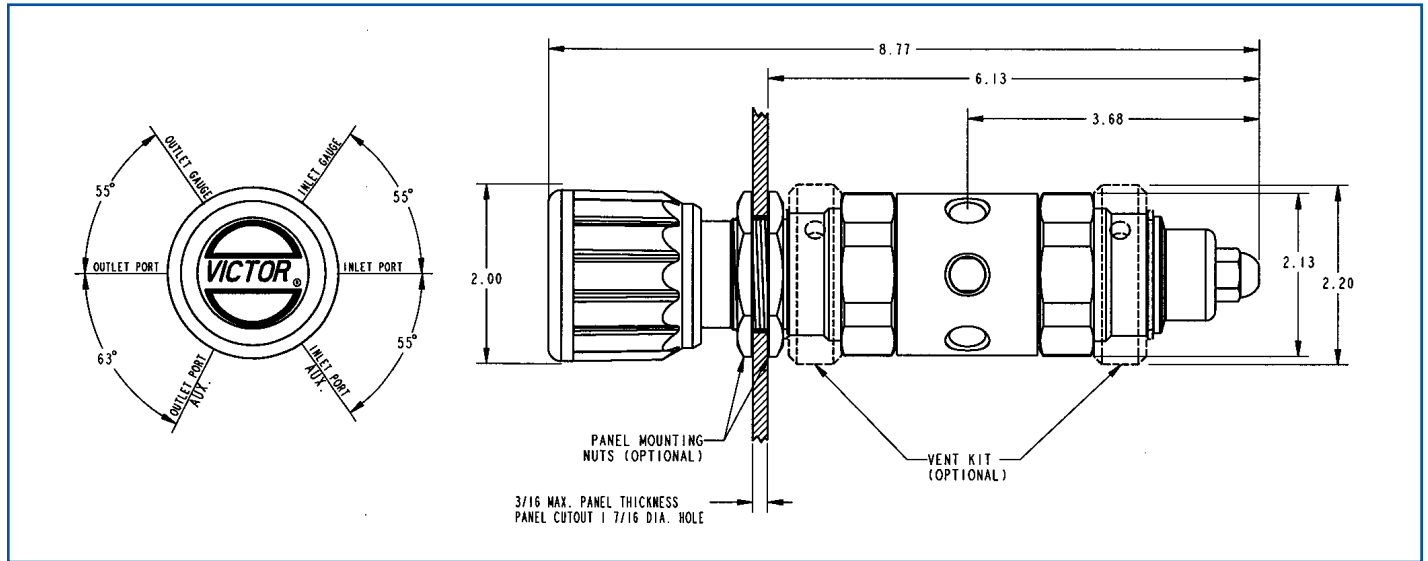
Flow coefficient $C_v = .128$

Weight.....4.5 lbs (2 kgs)

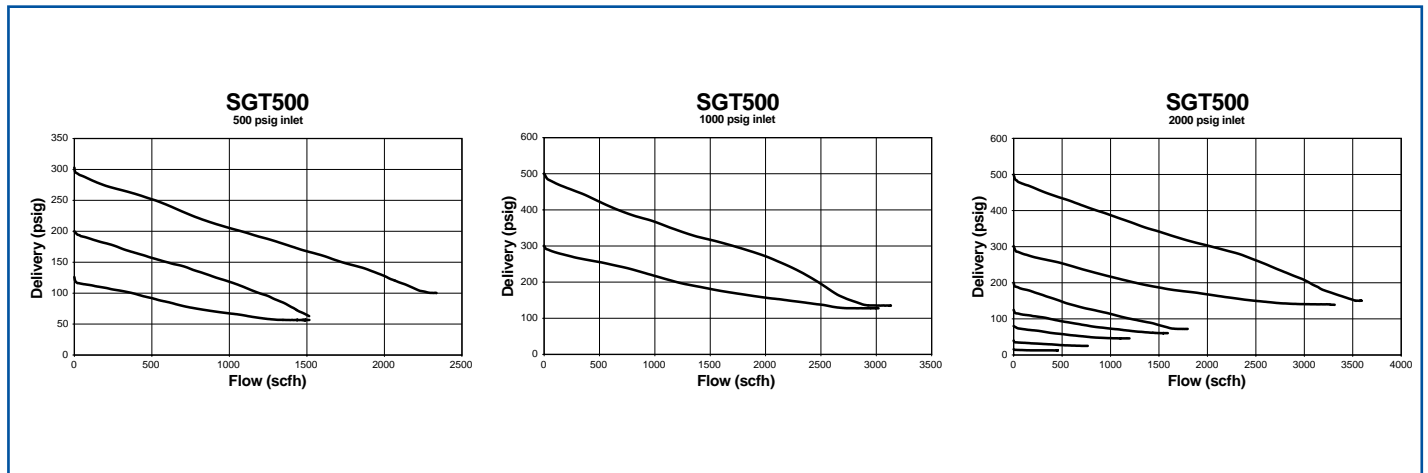
SGT 500 TYPICAL APPLICATIONS

- Gas Chromatography
- Regulation of Corrosive Gases
- Diffusion Furnaces
- Research Sampling Systems
- Laser Gas Systems
- Process Analyzers
- CEM and EPA Protocol Standards

Two-Stage Cylinder Regulator **SGT 500**



SGT 500 PERFORMANCE DATA



ORDERING: MODEL NUMBER SYSTEM

XXX	-	XXX	-	XXX	-	XXX	-	XX	-	XX
↓		↓		↓		↓		↓		↓
Base Regulator		Series		Delivery Pressure		Inlet Fitting		Outlet Fitting		Options
SGT		500		Delivery Outlet Gauge 15 - 2-15 30"-0-30 psig 40 - 2-40 30"-0-60 psig 80 - 4-80 30"-0-100 psig 125 - 5-125 30"-0-200 psig 200 - 10-200 10-400 psig 300 - 10-300 10-400 psig 500 - 20-500 60-600 psig		240 - CGA 240 580 - CGA 580 540 - CGA 540 350 - CGA 350 330 - CGA 330 660 - CGA 660 705 - CGA 705 4F - 1/4" FNPT 4M - 1/4" MNPT		BV - Shut-off valve 1/4" DK - DRK valve 1/4" 4M - 1/4" Male fitting 4F - 1/4" Female port 2S - 1/8 Swagelok® 4S - 1/4" Swagelok® FM - Flowmeter		00 - Bare body 01 - Cross purge 02 - Helium Leak Certification 03 - Certification 04 - Captured Vent 05 - Panel mount kit 06 - W/O gauges 07 - W/O relief valve

Ordering Examples:
SGT-500-125-580-DK
 SGT 500 regulator w/ 125 psi delivery pressure
 CGA 580 inlet fitting, 1/4" Diffusion Resistant Valve outlet fitting
 No options selected

SGT-500-500-4F-2S-02,04
 SGT 500 regulator w/ 500 psi delivery pressure
 1/4" Female NPT inlet port, 1/8" Swagelok® outlet fitting
 Helium Leak Certification option, Captured Vent option