

# Models AG3800, AG3805, AG3810

## Ultra High Purity, Standard Flow Line Regulators

The Models AG3800, AG3805, and AG3810 regulators are designed for ultra high purity gases used in line applications at inlet pressures up to 3000 psig. The metal to metal diaphragm to body seal design assures maximum diffusion resistance. Convoluted stainless steel diaphragms provide enhanced performance and excellent accuracy. These regulators are specially suited for point-of-use gas delivery systems requiring high leak integrity and guaranteed gas purity levels. Models AG3800 and AG3805 are for non-corrosive gases; Model AG3810 is suitable for use with corrosive gases.



AG3810 Regulator



AG3810 Regulator with Optional Mounting Plate

### Standard Features

- Metal to Metal Diaphragm to Body Seal (without back-up o-ring) assures maximum diffusion resistance.
- High Purity Regulator Design permits vacuum purging of regulator.
- In-line Porting permits direct installation of regulator in piping system.
- Filter traps foreign matter, extends regulator life and reduces maintenance.
- Threaded Holes in Rear of Regulator permit front panel mounting.

### Optional Features

- Mounting Ring permits regulator to be panel mounted
- Compression Fittings installed in inlet and outlet ports allow connection to 1/4" or 1/8" tubing.
- Regulator mounting plate allows for easy mounting of regulator to wall or panel.

### Specifications

Maximum Inlet Pressure: 3000 psig

Delivery Pressure Range: See Table I

Delivery Pressure Gauge: See Table I

Filter: 40 micron

Gauge Size: 2" Dial

Operating Temperature Range:  
-40°F to 140°F

Flow Coefficient:  $C_v = 0.06$

Bonnet Vent Connection: 1/16" NPT female

Inlet and Outlet Connections: 1/4" NPT female (standard). Compression fittings available as an option

Approximate Weight: 2 lbs.

**Purge Gas Equipment for Industrial Lasers** – See pages 68–69 for additional information

### Materials of Construction

Body:

AG3800: Brass Bar Stock

AG3805: Nickel-Plated Brass Bar Stock

AG3810: Type 316 SS Bar Stock

Gauges:

AG3800: Brass

AG3805: Chrome-Plated Brass

AG3810: Type 316 Stn. Stl.

Bonnet:

AG3800: Brass

AG3805: 300 Series Stn. Stl.

AG3810: 300 Series Stn. Stl.

Other Metal Parts Exposed to Gas:

AG3800, AG3805: Brass

AG3810: Type 316 Stn. Stl.

Seat: PCTFE

Diaphragm: Type 316 Stainless Steel

Friction Sleeve: Teflon®

Table I

Part Number	Delivery Pressure			Range (psig)	Gauge (dual scale)	
	Brass	Nickel-Plated Brass	Stainless Steel		(psig)	(bar)
AG3800-30	AG3805-30	AG3810-30	4–30	0–60	0–4	
AG3800-100	AG3805-100	AG3810-100	10–100	0–200	0–14	
AG3800-300	AG3805-300	AG3810-300	20–200	0–400	0–27	
AG3800-500	AG3805-500	AG3810-500	30–500	0–600	0–41	

### Optional Equipment

Equipment	Part No.
Panel Mounting Ring*	PM3803
Regulator Mounting Plate and Hardware*	RP1
Inboard Helium Leak Test and Test Report	HT1000
Outboard Helium Leak Test and Test Report	HT1001
Compression Fittings (two required)*	
1/8" compression for Model AG3800, AG3805	SG6703
1/4" compression for Model AG3800, AG3805	SG6704
1/8" compression for Model AG3810	SG6713
1/4" compression for Model AG3810	SG6714

\* If selected, these items are not installed on the regulator. They are shipped as separate items.