

Models AGR3800, AGR3810

Ultra High Purity, Back Entry Ported Regulators

The AGR3800 and AGR3810 Models are machined from bar stock and designed for use with ultra high purity gases in line applications at inlet pressures up to 3000 psig. They feature a back entry inlet port and threaded mounting holes providing flexibility with panel mounting configurations. The back port design allows front panel mounting of the regulator while concealing the inlet piping behind the panel.

These regulators are specially suited for point-of-use gas delivery systems requiring high leak integrity and guaranteed gas purity levels. Model AGR3800 is for non-corrosive gases; Model AGR3810 is suitable for use with most corrosive gases.

These back entry line regulators are utilized in the design of our P series panels shown on page 76.



AGR Regulators with Male Connector

Standard Features

- Porting Design permits inlet piping to be installed in back (rear) of regulator body.
- Threaded Holes in Rear of Regulator permit front panel mounting.
- Metal to Metal Diaphragm Seals assure maximum diffusion resistance.
- Metal to Metal Diaphragm to Body Seal (without back-up o-ring) assures maximum diffusion resistance.
- Filter traps foreign matter, extends regulator life and reduces maintenance.

Optional Features

- Mounting Ring permits regulator to be rear panel mounted
- Compression Fittings installed in inlet and outlet ports allow connection to 1/4" tubing.
- Internal (Inboard) Helium Leak Test and Test Report certifies leak rate of less than 2×10^{-8} sccs air equivalent.
- External (Outboard) Helium Leak Test and Test Report certifies leak rate of less than 5×10^{-7} sccs air equivalent.

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

Bonnet Vent Connection: 1/16" NPT female

Flow Coefficient: $C_v = 0.06$

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

Approximate Weight: 2 lbs.

Materials of Construction

Body:

AGR3800: Brass Bar Stock

AGR3810: Type 316 SS Bar Stock

Gauges:

AGR3800: Brass

AGR3810: Type 316 Stn. Stl.

Bonnet:

AGR3800: Brass

AGR3810: 300 Series Stn. Stl.

Other Metal Parts Exposed to Gas:

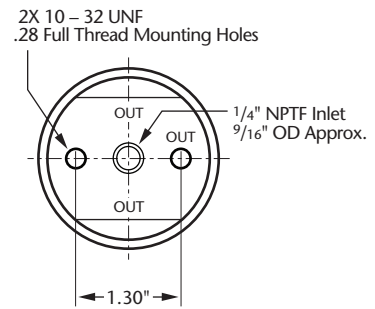
AGR3800: Brass

AGR3810: Type 316 Stn. Stl.

Seat: PCTFE

Diaphragm: Type 316 Stainless Steel

Friction Sleeve: PTFE



Body Rear View

Table I

Part Number		Delivery Pressure		
Brass	Stainless Steel	Range (psig)	Gauge (dual scale) (psig)	(bar)
AGR3800-30	AGR3810-30	4-30	0-60	0-4
AGR3800-100	AGR3810-100	10-100	0-200	0-14
AGR3800-300	AGR3810-300	20-300	0-400	0-27
AGR3800-500	AGR3810-500	30-500	0-600	0-41

Optional Equipment

Equipment	Part No.
Panel Mounting Ring*	PM3803
Inboard Helium Leak Test and Test Report	HT1000
Outboard Helium Leak Test and Test Report	HT1001
Compression Fittings (each)*	
1/4" male connector for Model AGR3800	SG6704
1/4" male connector for Model AGR3810	SG6714
1/4" male elbow connector for Model AGR3800	SG6744
1/4" male elbow connector for Model AGR3810	SG6754

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