

Model APG

Ultra High Purity, Two-Stage, Bar Stock Regulators

The Model APG stainless steel bar stock regulator is specially suited for applications requiring both corrosion and diffusion resistance in a two-stage regulator. It is recommended for high purity gases or gas mixtures that have corrosive properties. The two-stage design provides constant outlet pressure regardless of changes in cylinder (inlet) pressure.



APG Regulator

Standard Features

- Type 316 Stainless Steel Bar Stock Construction provides maximum corrosion resistance.
- 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.
- Diaphragm Seal Outlet Valve maintains gas purity.
- Filter traps foreign matter, extends regulator life and reduces maintenance.
- 1/16" NPT Female Bonnet Vent Ports allow bonnets to be connected to a vent line or disposal system as a precaution in the unlikely event of a diaphragm failure.

Optional Features

- Captured Venting Configuration provides 1/16" NPTF vent ports and stem packing allowing for complete capturing of second stage bonnet when connected to a vent line or disposal system.
- Mounting Ring permits regulator to be panel mounted.
- Quick Mount Assembly provides for convenient and safe wall-mounted installation.
- Internal (Inboard) Helium Leak Test and Test Report determines inboard leak rate of gas from regulator to atmosphere; test report certifies leak rate of less than 2×10^{-8} sccs air equivalent.
- External (Outboard) Helium Leak Test and Test Report determines outboard leak rate of gas from regulator to atmosphere; test report certifies leak rate of less than 5×10^{-7} sccs air equivalent.

Specifications

Maximum Inlet Pressure: 3000 psig
 Inlet Pressure Gauge (dual scale):
 0–4000 psig / 0–275 bar
 Delivery Pressure Range: See Table I
 Delivery Pressure Gauge: See Table I
 Filter: 40 micron
 Gauge Size: 2" Dial
 Operating Temp. Range: -40°F to 140°F
 Flow Coefficient:
 Regulator: Cv = 0.05
 Outlet Valve: Cv = 0.17
 Bonnet Vent Connection: 1/16" NPT female
 Inlet Connection: CGA 296, 320, 326, 330, 346, 350, 510, 540, 580, 590, 660 or 705 as ordered
 Outlet Connection: 1/4" NPT female
 Supply Pressure Effect:
 0.04 psi per 100 psi
 Approximate Weight: 5 lbs.



APG Regulator with Optional Quick Mount

Materials of Construction

Body and Outlet Valve:
 Type 316 Stainless Steel Bar Stock
 Gauges: Type 316 Stainless Steel
 Bonnet: 300 Series Stainless Steel
 Other Metal Parts Exposed to Gas:
 Type 316 Stainless Steel
 Seats: PCTFE
 Friction Sleeves: Teflon®
 Diaphragms: Type 316 Stainless Steel

Table I

Part No.	Delivery Pressure		
	Range (psig)	Gauge (dual scale) (psig)	(bar)
APG-3-30-(CGA)	2–30	-30" Hg–0–60	-1–0–4
APG-3-75-(CGA)	4–75	-30" Hg–0–100	-1–0–7
APG-3-150-(CGA)	10–150	-30" Hg–0–200	-1–0–14
APG-3-300-(CGA)	20–300	0–400	0–27
APG-3-500-(CGA)	30–500	0–600	0–41

Where "(CGA)" is indicated above, insert appropriate Compressed Gas Association connection number to complete the part number. Example: APG-3-30-580. Order by complete part number.

Optional Equipment (see Table on page 28)

To order regulator with optional quick mount assembly, suffix regulator part number with QM. Example: APG-3-150-580-QM.

One 30" all stainless steel flexible hose with check valve – CGA connection will be included with each quick mount assembly.