

# AG9100, AG9110 Series

## Low Internal Volume, Miniature Single-Stage Regulators

These metal diaphragm, single-stage regulators feature a scant internal volume of just 3.0 cubic centimeters, which makes them ideal for use in portable calibration and analyzer applications. The low internal volume and special cleaning process provides for ease of purging with minimal gas usage and reduced contamination potential.

The AG9100 Series is suitable for non-corrosive service, while the AG9110 Series is designed for mildly corrosive gases, ideal for: EPA Protocol standards, low level VOC analyses, and High Purity applications.



AG9100 Regulator

### Standard Features

- Low Internal Volume of only 3.0 cubic centimeters allows rapid purging in analytical instrumentation applications.
- Metal Diaphragm minimizes diffusion of air into regulator and eliminates "off gassing" associated with elastomeric diaphragms, thus maintaining gas purity.
- High Purity Regulator Design permits vacuum purging of regulator.
- Special Cleaning Process eliminates organic film and any surface adhering particles to ensure a stable base line in low level VOC analyses and High Purity applications.
- Lightweight and Compact Design provides for ease of transportation with small cylinders.

### Specifications

Maximum Inlet Pressure: 3000 psig

Inlet Pressure Gauge (dual scale):  
0–3000 psig / 0–207 bar

Delivery Pressure Range: See Table I

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Gauge Size: 1 1/2" Dial

Operating Temp. Range: -40°F to 140°F

Flow Coefficient:  $C_v = 0.06$

Inlet Connection:

AG9100: CGA 110, 170, 180, 320, 326, 346, 350, 510, 580, 590 or 660 as ordered.

AG9110: CGA 110, 180, 320, 326, 330, 346, 350, 510, 580, 590, 660 or 705 as ordered.

Outlet Connection: 1/4" NPT female

Dimensions (approx.) Body only:  
1 5/8" x 3"

Approximate Weight: 2 lbs.

### Materials of Construction

Body:

AG9100: Brass Bar Stock

AG9110: Type 316 SS Bar Stock

Gauges:

AG9100: Brass

AG9110: Type 316 SS

Bonnet: Anodized Black Aluminum

Other Metal Parts Exposed to Gas:

AG9100: Brass and Stn. Stl

AG9110: Type 316 Stn. Stl.

Seat: PCTFE

Diaphragm: Elgiloy®

Seals: PTFE

Table I

Part Number		Delivery Pressure		
Brass	Stainless Steel	Range (psig)	Gauge (dual scale) (psig)	(bar)
AG9100-(CGA)	AG9110-(CGA)	5–30	0–60	0–4
AG9101-(CGA)	AG9111-(CGA)	5–75	0–100	0–7
AG9102-(CGA)	AG9112-(CGA)	10–150	0–200	0–14

Where "(CGA)" is indicated above, insert appropriate Compressed Gas Association connection number to complete the part number. Example: AG9100-580. Order by complete part number.

### Optional Equipment

Equipment	Part No.
Compression Fittings* (male connectors)	
1/4" NPT male x 1/8" compression for AG9100 Series	SG6703
1/4" NPT male x 1/4" compression for AG9100 Series	SG6704
1/4" NPT male x 1/8" compression for AG9110 Series	SG6713
1/4" NPT male x 1/4" compression for AG9110 Series	SG6714
Check Valves*	See page 141

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