

Ultra-High-Purity Two-Stage

Electronic Service

PRESSURE REGULATORS

Description: The Airgas® Ultra-High-Purity Two Stage Regulators are internally threadless pressure regulators specifically designed for instrument/analyzer and semiconductor applications. This regulator's unique carrier design disperses gas uniformly through the regulator to improve purging. The seat materials meet the requirements for corrosive and inert gases.

These regulators are all orbitally welded with high-purity face seal connections and have a 32 Ra internal surface finish. Optional 10 Ra electropolished.

Instrument applications include gas management systems in petrochemical/refineries and process analyzer systems. Semiconductor applications include general-purpose gas management (air, condensed dry air (CDA), and plant nitrogen).

This is a high-pressure ultra-high-purity regulator.



Design Features

32 Ra Internal Surface Finish

Unique Patented Compression Member

loads the seal to the body without requiring a threaded nozzle or additional seal to atmosphere.

Meets NACE Standard MR0175

Captured Bonnet

allows for safety venting.

Specifications	
Max Rated Inlet Pressure	4,000 psig (276 bar)
Outlet Pressure Range	1–30, 2–60, 3–100, 10–250 psig
Cv	0.06
Ambient Operating Temperature	–40° F to 150° F (–38° C to 65° C)
Designed Leak Rate	2 x 10 ⁻⁸ scc/sec (helium)
Weight	1.5 lbs (0.7 kg)
Ports	1/4" Face Seal
Inlet	1/4" Female Face Seal
Outlet	1/4" Male Face Seal
Gauge Ports	1/4" Male Face Seal
Gauge Size	2" diameter
Supply Pressure Effect	0.6/100 psi

Materials	
Body	316L Stainless Steel
Bonnet	Nickel Plated Brass
Seat	PCTFE
Diaphragm	Hastelloy C-22®
Gauges	2" Female Face Seal
Filter	None
Seals	PTFE
Poppet	Elgloy®
Poppet Spring	Iconel®
Carrier	Stainless Steel
Back-up washer	316L Stainless Steel
Back-up O-ring	FKM

Ordering Information					
Product Number	Body Material	Max Inlet Pressure (psig)	Max Outlet Pressure (psig)	Inlet Gauge Range (psig)	Outlet Gauge Range (psig)
Y12-HP950A(CGA)	316L Stainless Steel	4,000	25	0–4,000	0–60
Y12-HP950B(CGA)	316L Stainless Steel	4,000	60	0–4,000	0–100
Y12-HP950D(CGA)	316L Stainless Steel	4,000	100	0–4,000	0–200
Y12-HP950F(CGA)	316L Stainless Steel	4,000	250	0–4,000	0–400