

## Stainless Steel Two-Stage Models

**Description:** This series of stainless steel two-stage high-purity regulators is designed for non-corrosive analytical, mildly corrosive and process applications requiring precise, stable delivery pressure control. The two-stage design yields a delivery pressure change of less than 0.05/100 psi inlet change.

Convuluted 316L SS diaphragms provide excellent regulating characteristics and allow for internal vacuum purging. The metal-to-metal diaphragm seal prevents contamination by eliminating the need for a soft seal and provides a leak-rate design of less than  $2 \times 10^{-8}$  ccs helium. This minimizes cleanup time in vacuum purging and yields lower residual contaminant levels.

A diaphragm packless outlet valve with a 1/4" compression tube fitting is provided for flow control and to maintain system purity. Captured bonnet ports with optional vent adaptors are standard on both stages and allow the venting of hazardous gases in the event of diaphragm failure. These regulators are cleaned for the most demanding high-purity service.

### High-Purity Stainless Steel

### ANALYTIC SERIES PRESSURE REGULATORS



#### Design Features

- Convuluted 316L SS Diaphragms** provide superior leak integrity without contamination from a non-metallic liner or seal.
- Bonnet Vent Ports** (with optional bonnet vent adaptors) allow venting of hazardous gases in the event of diaphragm failure.
- Standard Threaded Bonnet** (with optional collar-mount nuts) for easy panel mounting.
- Diaphragm Packless Valve** (with 1/4" Compression fitting) promotes system purity.
- Encapsulated Valve Design** provides longer regulator life.

#### Materials

<b>Body</b>	316 Stainless Steel
<b>Bonnet</b>	Nickle Plated Brass
<b>Seat</b>	PTFE
<b>Diaphragm</b>	316L SS
<b>Gauges</b>	2 1/2" Stainless Steel
<b>Filter</b>	316 Stainless Steel
<b>Outlet Valve</b>	316 Stainless Steel
<b>Trim</b>	316 Stainless Steel
<b>Poppet Spring</b>	316L SS

#### Specifications

<b>Maximum Rated Inlet Pressure</b>	4,000 psig
<b>Outlet Pressure Ranges</b>	0-30, 0-60, 0-100, 0-250, 0-500 psig
<b>Flow Capacity</b>	Cv=0.06
<b>Ambient Operating Temperature</b>	-40° F to +165° F
<b>Designed Leak Rate</b>	$2 \times 10^{-8}$ cc/sec
<b>Weight</b>	5.4 lbs
<b>Ports (6)</b>	1/4" FNPT
<b>Inlet</b>	1/4" FNPT
<b>Outlet</b>	1/4" Compression
<b>Decay Inlet Characteristic</b>	0.05 psi/100 psi

#### Ordering Information

Product Number	Material	Max Inlet Pressure (psig)	Max Outlet Pressure (psig)	Capacity (scfh @ Max Del. Pressure)	Inlet Gauge Range (psig)	Delivery Gauge Range (psig)
Y12-ASC445AA (CGA)	316L SS	4,000	10	100	0-4,000	30" Hg-0-30
Y12-ASC445A (CGA)	316L SS	4,000	30	160	0-4,000	30" Hg-0-30
Y12-ASC445B (CGA)	316L SS	4,000	60	300	0-4,000	0-100
Y12-ASC445D (CGA)	316L SS	4,000	100	400	0-4,000	0-200
Y12-ASC445E (CGA)	316L SS	4,000	250	1000	0-4,000	0-400
Y12-ASC445G (CGA)	316L SS	4,000	500	1700	0-4,000	0-600

#### Available Options

Product Number	Description
Y99-CHROMNUT	Panel Mounting Nut
Y99-BONNETADP	Bonnet Vent Adaptor
Y99-SS200R4	1/4" Compression Outlet Ftg Stn Steel
Y99-4VCR	1/4" VCR® connection on Inlet/Outlet (VCR x 1/4" MNPT)
Y99-CKSS(CGA)	Check Valve Connection Stn Steel
Y15-QMS1	Quick Mounting Option for 1 Cylinder
Y15-QMS2	Quick Mounting Option for 2 Cylinders