

# 620 High Purity, Two-Stage Regulator



This high purity two-stage regulator is designed for non-corrosive gases requiring precise and stable delivery pressure control. These regulators provide constant outlet pressure regardless of inlet pressure fluctuations. This regulator features a unique metal to metal diaphragm seal. A chrome plated brass, diffusion resistant, packless diaphragm shut-off valve is provided for flow control and to maintain system purity. 1/16" FNPT captured vent ports are provided for both stages to allow for venting of hazardous gases in the event of a diaphragm failure. This regulator is designed to withstand internal vacuums during purging operations.

## 620 Features

- Brass Electroless Nickel Plated Bar Stock Body
- Convoluted Stainless Steel Diaphragm
- 316 Stainless Steel Filter
- Stem Type Seat Mechanism
- Threaded Bonnet for Panel Mounting
- Body is Threaded for Rear Bracket Mounting
- Captured Vent in Bonnet (1/16" FNPT)
- Ultrasonically Cleaned

## 620 Typical Applications

- High-Purity Gas Handling
- Non-Corrosive Gases
- Gas Chromatography
- EPA Protocol Gases
- Process Analyzers
- Zero Gases, Span Gases, and Calibration Mixtures

- Research Sampling Systems
- Laser Gas Systems

## Materials of Construction

Body	Electroless Nickel Plated Brass Bar Stock
Bonnet 1st Stage	Electroless Nickel Plated Brass
Bonnet 2nd Stage	Electroless Nickel Plated Brass
Seat	Teflon®
Seat Retainer	Brass
Diaphragm 1st Stage	Stainless Steel
Diaphragm 2nd Stage	Stainless Steel
Gauge	2 1/2" Chrome Plated
Filters (2)	.316 Stainless Steel
Valve Stem	.316 Stainless Steel
Valve Spring	.316 Stainless Steel
Outlet Valve	Chrome Plated Brass

## 620 Specifications

Maximum Inlet Pressure	. . . . . 3000 PSIG
Temp. Operating Range	. . . -40° F to 165°F
Ports (4)	. . . . . 1/4" FNPT
Design Leak Rate	. . . . . 1 x 10 <sup>-9</sup> ccs Helium
Flow Coefficient Cv	. . . . . 0.05
Outlet Pressure Rise	. . . . . 0.02/100 PSIG
Weight	. . . . . 5.22 lbs.



*EZ Mount Regulator Bracket*  
See [page 157](#) for more details.

## How to Order: *Specify a number from each category*

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Model Number	Max. Outlet Pressure PSIG	Delivery Gauge		Outlet Fittings	CGA Inlet Fittings	Accessories	Options
		Range PSIG	Graduations PSIG				
620	25	30" Hg 0-30	1	00 1/4" FNPT	00 None	00 None	00 None
621	50	0-60	2	01 1/4" FNPT Chrome Diaphragm Valve	02 CGA 320	01 Panel Mount Kit	01 Captured Vent Fitting
622	100	0-200	5	02 1/4" FNPT Chrome Diaphragm Valve with 1/8" SS Swagelok	03 CGA 326	02 Helium Leak Certification	1/8" Stainless Steel
623	250	0-400	10	81 1/8" Stainless Steel Swagelok	05 CGA 346	03 Panel Mount Kit and Certification	Swagelok
				83 1/4" Stainless Steel Swagelok	06 CGA 350		
					08 CGA 540		
					09 CGA 580		
					10 CGA 590		
					13 CGA 296		