

# 220 SERIES



Distributed By:  
**Med-Tech Gases, Inc.**  
 1-800-FINE-GAS (346-3427)  
 www.medtechgases.com

## HIGH PURITY ANALYTICAL TWO STAGE BRASS CYLINDER REGULATORS



**Sure-Seat™**  
 technology for maximum life and gas purity

These high purity two stage regulators are recommended for high purity, non-corrosive pure gases and mixtures in applications where constant delivery pressures are required. These regulators are ideally suited for the control of carrier gases or calibration mixtures used in gas chromatography such as thermal conductivity, flame ionization, flame photometry, and electron capture. This two stage design allows for precise control from full to nearly empty cylinders and is recommended in applications where constant delivery pressures, regardless of fluctuations in cylinder pressure, are required. An automatic reseating safety relief valve protects the regulator components from over pressurization. These regulators are able to withstand vacuums generated during purging operations.

### DESIGN FEATURES

- Filtered seat for added gas stream purity, and extended service life
- Convuluted stainless steel diaphragm for precise control of pressure
- Large 2 - 1/2" easy to read single scale gauges
- Front and rear bonnet is threaded for panel mounting
- Rugged all brass bar stock construction
- Plated body, bonnet, and gauges for superior protection
- Built in capturable preset safety relief valve

### SPECIFICATIONS

Maximum Inlet Pressure	3000 PSIG
Outlet Pressure Ranges	0-15, 0-50, 0-100 0-150 PSIG
Temp. Operating Range	-40°F to +165°F
Ports (4)	1/4" FNPT
Outlet	1/4" MNPT
Outlet Valve	1/4" needle valve
Design Leak Rate	Bubble tight (1 x 10 <sup>-5</sup> ccs Helium)
Flow Coefficient Cv	0.05
Inlet Decay Rate	0.025/100 PSIG
Weight	5 lbs.

### MATERIALS OF CONSTRUCTION

Body	Electroless Nickel Plated Brass Bar Stock
Bonnet 1st Stage	Electroless Nickel Plated Brass Bar Stock
Bonnet 2nd Stage	Electroless Nickel Plated Brass Bar Stock
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/Brass
Valve Stem	316 Stainless Steel
Valve Spring	316 Stainless Steel
Outlet Valve	Chrome Plated Brass
Seals	Teflon®

### 222 - 40 - 03

OPTION 1:	OPTION 2:	OPTION 3:
<b>MODEL SERIES &amp; OUTLET PRESSURE</b>	<b>OUTLET FITTINGS</b>	<b>CGA INLET FITTINGS</b>
220 15 PSIG	00 1/4" FNPT	00 1/4" FNPT
221 50 PSIG	01 1/4" FNPT Chrome Diaphragm Valve	02 CGA 320
222 100 PSIG	20 Chrome Needle Valve with male 1/4" NPT outlet	03 CGA 326
223 150 PSIG	40 Chrome Needle Valve with female 1/4" NPT outlet	05 CGA 346
	41 Chrome Needle Valve with 1/8" brass tube fitting	06 CGA 350
	42 Chrome Needle Valve with 1/8" stainless steel tube fitting	07 CGA 510*
	82 Nickel "B" fitting (9/16" - 18RH)	08 CGA 540
	*84 Nickel Fuel Hose Connection (9/16" - 18LH)	09 CGA 580
		10 CGA 590
		13 CGA 296*

\* Only available and used with #220 series

\* Only available and used with #220 body

To order additional inlet/outlet and accessories options which are available and sold separately, please see page 38-39 of this catalog.

### ORDERING INFORMATION FOR 220 SERIES REGULATORS

Product Number	Max. Inlet Pressure PSIG	Max. Outlet Pressure PSIG	Inlet Gauge		Delivery Gauge	
			Range PSIG	Graduations PSIG	Range PSIG	Graduations PSIG
220	3000	15	0-3000	50	30" Hg 0-30	1
221	3000	50	0-3000	50	0-60	2
222	3000	100	0-3000	50	0-200	5
223	3000	150	0-3000	50	0-200	5



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