

# ECONOMICAL, CORROSIVE GAS, HIGH PURITY 1-STAGE REGULATOR Series 3450

Middlesex Gases & Technologies, Inc. 292 Second Street PO Box 490249 Everett, MA 02149

(800) 649-6704 or (617) 387-5050 www.MiddlesexGases.com Info@MiddlesexGases.com

#### **DESCRIPTION**

The Series 3450 single stage regulators are specifically designed and constructed for use with difficult to handle gases, like chlorine and hydrogen chloride. The monel<sup>®</sup> internal parts installed in a 316L stainless steel body create an economical high purity corrosive gas regulator for most applications.

### **FEATURES**

- Monel<sup>®</sup> internal parts for added corrosion resistance.
- Encapsulated seat.
- High purity diffusion resistant, metal diaphragm construction.
- Diffusion resistant, diaphragm packless control valve installed on outlet as standard.
- Designed to pass an inboard helium leak-rate test of 1x10<sup>-9</sup> cc per sec.
- · All parts ultrasonically cleaned prior to assembly
- · Rear panel mounting holes.

## **APPLICATIONS**

The 3450 Series regulators are ideal for use with many corrosive gases, such as chlorine, hydrogen chloride, boron trichloride, and boron triflouride. They are also useful for controlling the pressure of gas mixtures containing these corrosive gas components, particularly at higher concentration levels.

## **SPECIFICATIONS**

Max. Inlet Pressure: 3000 psig

Operating Temp. Range: -40° to +185°F.

Flow Coefficient(C<sub>V</sub>): 0.08 Inlet and Outlet: 1/4" NPT Female

**Outlet Valve Standard** 



#### **MATERIALS OF CONSTRUCTION**

Body: 316L stainless steel Seat Assembly: Monel®

Seat: Kel-F® Diaphragm: Elgiloy Diaphragm Seal: Teflon® Inlet Filter: Monel®

Bonnet: nickel plated aluminum Gauges: 316 stainless steel Outlet Valve: 316 stainless steel Outlet Connections: 316 stainless steel Knob: aluminum - black anodized

**NOTE:** See pages 130-146 for gas data and equipment recommendations.

#### HOW TO ORDER\*\*\*

HOW TO ORDER			
Model	Del. Press. Range	Del. Press. Gauge	Inlet Press. Gauge
Number+	psig	psig	psig
3451-25-CGA*	5-25	0-60	0-3000
3451-50-CGA*	5-50	0-100	0-3000
3451-100-CGA*	10-100	0-200	0-3000
3452-25-CGA*	5-25	0-60	0-1000
3452-50-CGA*	5-50	0-100	0-1000
3452-100-CGA*	10-100	0-200	0-1000
3453-25-CGA*	5-25	0-60	0-400
3453-50-CGA*	5-50	0-100	0-400
3454-25-CGA*	5-25	0-60	none
3454-50-CGA*	5-50	0-100	none

<sup>\*</sup>Specify CGA Connection Number when ordering

**Warning:** A Purge assembly (see pages 96 and 97) is strongly suggested when using the above regulators with any corrosive gas.

## **OUTLET OPTIONS**

-	P/N Suffix
No Outlet Valve	NV
1/4" Compression Fitting	T4F
1/8" Compression Fitting	T2F
1/4" NPT Male	P4M
1/4" Hose Barb	4HB



EZ3100 Bracket (see page 101).

<sup>\*\*\*</sup>For panel mounting bonnet add "PM" to base number (i.e., 3451PM-50-CGA).