

# BRASS

## HIGH PURITY 1-STAGE REGULATOR

### Series 3100

#### DESCRIPTION

The Series 3100 single stage regulators are designed and constructed for both high purity, low volume use and general purpose applications. They provide outstanding performance, yet they are rugged and versatile enough for the laboratory or plant. The relative low cost of these units has established them as the pressure regulator of choice in many plants and laboratories.

#### FEATURES

- Small internal volume - less than 5 cc.
- High purity diffusion resistant, metal diaphragm construction.
- Encapsulated seat.
- Diffusion resistant, brass diaphragm packless control valve installed on outlet as standard.
- Designed to pass an inboard helium leak-rate test of  $1 \times 10^{-9}$  cc per sec.
- All parts ultrasonically cleaned prior to assembly.
- Rear panel mounting holes.

#### APPLICATIONS

The 3100 Series regulators are ideally suited for use with small cylinders of Research Purity or Ultra High Purity gases. The small internal volume and high purity design result in more efficient use of expensive materials because it takes less gas to fill the internal cavity. They are also useful for less critical pressure reduction applications, where the precise control of pressure or flow is not required.

Special 3103A model for acetylene.

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

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

Model Number	Del. Press. Range psig	Del. Press. Gauge psig	Inlet Press. Gauge psig
3101-25-CGA*	5-25	0-60	0-4000
3101-50-CGA*	5-50	0-100	0-4000
3101-100-CGA*	10-100	0-200	0-4000
3101-250-CGA*	10-250	0-400	0-4000
3101-500-CGA*	100-500	0-600	0-4000
3102-25-CGA*	5-25	0-60	0-2000
3102-50-CGA*	5-50	0-100	0-2000
3102-100-CGA*	10-100	0-200	0-2000
3102-250-CGA*	10-250	0-400	0-2000
3103A-15-510	0-15	0-30 redline	0-400
3103-25-CGA*	5-25	0-60	0-400
3103-50-CGA*	5-50	0-100	0-400
3103-100-CGA*	10-100	0-200	0-400

\*Specify CGA Connection Number when ordering.

\*\* Add "HF" to basic model number (i.e., 3101HF -25-CGA).

\*\*\*For panel mounting bonnet add "PM" to base number (i.e., 3101PM-25-CGA).



#### SPECIFICATIONS

Max. Inlet Pressure: 3000 psig

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

Flow Coefficient ( $C_v$ ): 0.08 Standard, 0.2 optional \*\*

Inlet and Outlet: 1/4" NPT female

Outlet Valve Standard

#### MATERIALS OF CONSTRUCTION

Body: brass

Nozzle Assembly: brass

Seat: Kel-F®

Diaphragm: stainless steel

Diaphragm Seal: Teflon®

Inlet Filter: stainless steel

Bonnet: nickel plated aluminum

Gauges: brass

Knob: aluminum - black anodized

#### 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).