

# Low-Pressure Three-Stage Nitrogen Regulators

## Quick Specs

### Applications

Power transformers

### Gas Service

Nitrogen

### Delivery Pressure

3rd stage: 0.5 psig (0.03 bar)

3rd stage bypass: 6 psig (0.41 bar)

**Max. Inlet Pressure** 3,000 psig (207 bar)

**Outlet Connection** 1/2" FNPT

**CGA Inlet Connection** 580

**Regulator Body Inlet** 1/4" NPT

**Temperature Range** -20°–+140°F (-29°–+60°C)

Consistent, accurate low-pressure control. Reliable for daily use.



**Pressure switch (16347-3 only)** will alert when cylinder is low. Factory set at 250 psig (17 bar).

**Large diaphragm** allows for highly sensitive and accurate low pressure control.

**Adjusting screw with protective cap** to prevent tampering.

**Easy-to-read 2-inch gauge** with shatter-resistant polycarbonate lens cover.

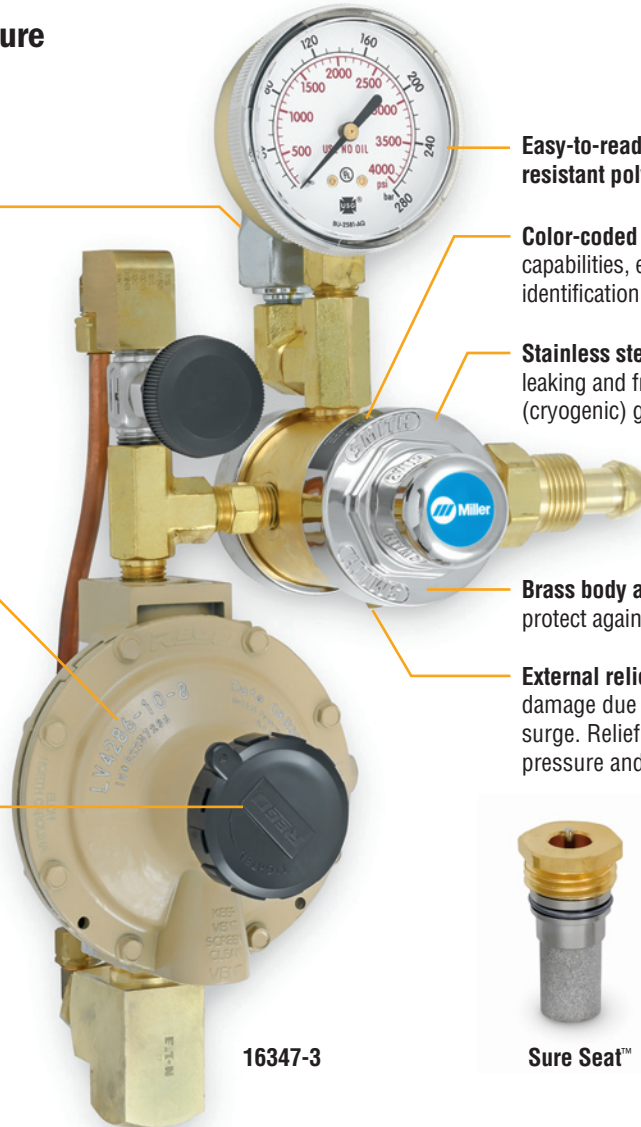
**Color-coded labels** supply performance capabilities, easy gas service identification and technical information.

**Stainless steel diaphragm** resists corrosion, leaking and freeze-up if used with liquid (cryogenic) gases for extended service life.

**Brass body and nickel-plated bonnet** protect against corrosion.

**External relief valve** protects regulator from damage due to inadvertent high-pressure surge. Relief valve will release excessive pressure and automatically reset.

**Dual filters including Sure Seat** protect high-pressure seat from debris for reliable operation and long service life.



16347-3



Sure Seat™



Warrantied for one year, parts and labor.



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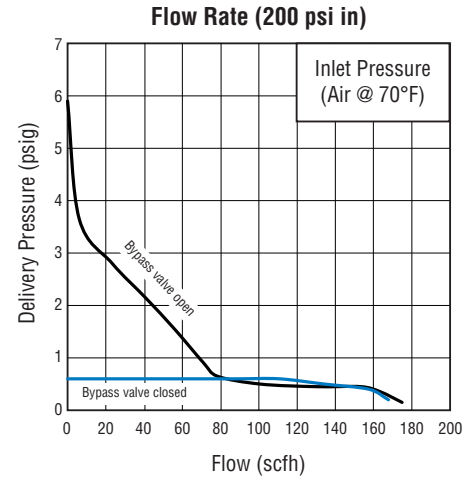
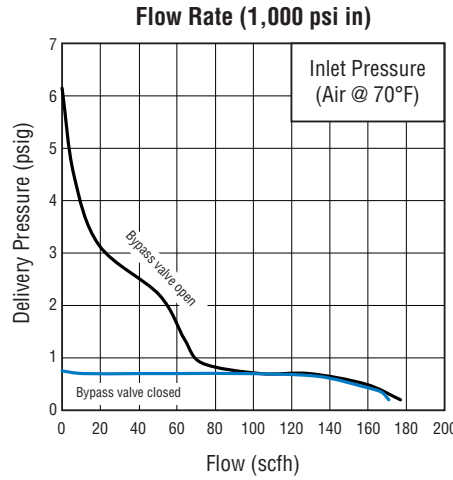
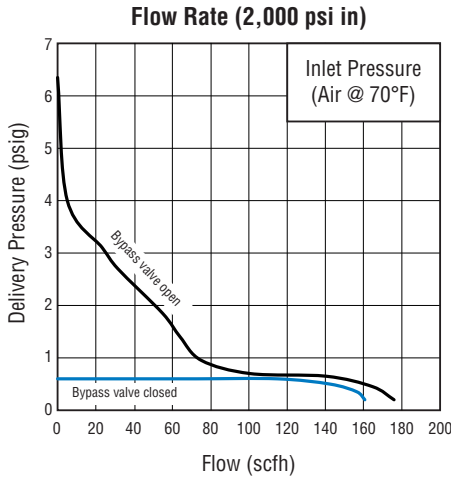
# Performance Data

These flow charts are used to determine whether or not your regulator has the flow capability necessary for your application.

### How to use a flow chart:

There are multiple ways to use a flow chart. Each method relies on a pair of known values for inlet pressure, outlet pressure, or flow rate to determine the third. For example, if the inlet and outlet pressures are known and you wish to know the flow rate, the following steps may be used:

1. Identify curve corresponding to the system's inlet pressure. Different colors or symbols may be used to differentiate one inlet pressure from another.
2. Find desired outlet pressure on vertical axis.
3. Move horizontally across the chart until the line corresponding to the desired outlet pressure intersects the curve corresponding to the inlet pressure.
4. Read the flow rate marked along the horizontal axis.



# Ordering Information

Stock No.	Gas Service	Inlet Gauge	Preset Outlet Pressure		Max. Inlet Pressure	Outlet Connection	Inlet Connection
			2nd Stage	3rd Stage			
<b>Low-Pressure Three-Stage Nitrogen Regulator</b>							
16391 (without pressure switch)	Nitrogen	0–4,000 psig (0–280 bar)	6 psig	0.5 psig	3,000 psig (207 bar)	1/2" FNPT	CGA 580
16347-3 (with pressure switch)			(0.41 bar)	(0.03 bar)			

Note: Operation voltage (model 16347-3): 5 amps at 12/24 volts DC or 125 volts AC. 3 amps at 250 volts.  
 Pressure switch setting: Adjustable from 70–300 psig (ships preset at 250 psig), 3/32-inch Allen head screw switch.  
 Switch wiring: Normally open or normally closed (DPDT), three 18-inch flying leads.

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