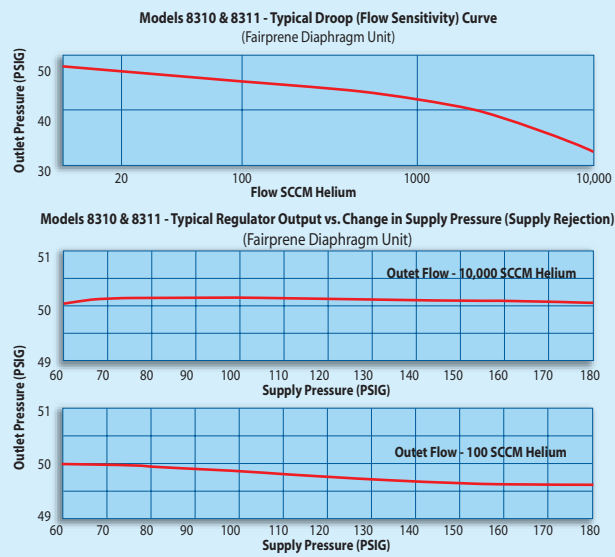
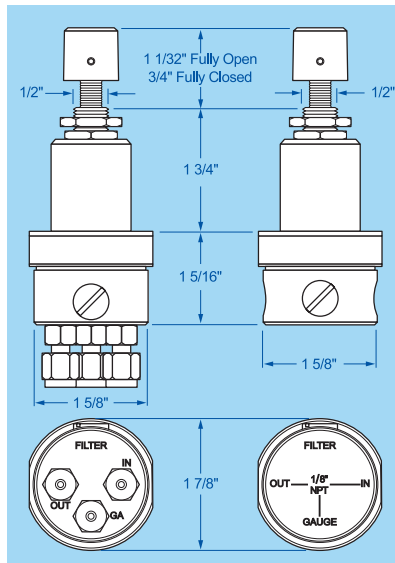


**Pressure Regulators - Model 8310/8311**

**Specifications**

The Porter Models 8310 and 8311 Regulators incorporate a threadless valve seat assembly with a precision glass ball. They are ideal for low flows and provide bubble-tight shut-off even at maximum supply pressure. The Models 8310 and 8311 are direct acting, non-relieving pressure regulators supplied with a replaceable sintered stainless steel cartridge filter on the inlet. They can be equipped with stainless steel diaphragms to reduce permeability. These regulators are performance tested under simulated operating conditions and cleaned for analytical instrument service.



**Design Features & Advantages:**

- Direct acting
- Non-relieving
- Pressure gauge connection
- Compact design
- Suitable for panel mounting
- All bar stock construction
- Bubble tight shut-off
- Cleaned for analytical service

**Materials of Construction**

- Body:** Aluminum or Stainless Steel.
- Bonnet:** Aluminum.
- Poppet:** Stainless Steel and Buna N or Viton.
- Orifice:** Stainless Steel.
- Diaphragm:** Fairprene BN-5029 (Buna N on nylon), Stainless Steel or Viton.
- Range Spring:** Music wire or Ni-Span-C.
- O-Rings:** Buna N or Viton.
- Filter Element:** Sintered Stainless Steel.

**Specifications**

- Ratings:** Maximum inlet pressure: 250 psig; Maximum working temperature: 160°F.
- Pressure Drop:** Minimum: 10 psi; Maximum: 250 psi.
- Performance:** (Based on 60 psig helium supply pressure at 50 psig outlet pressure)
  - Supply Rejection: 10 psi change in supply will not change outlet more than 0.07 psi.
  - Ambient Temperature Effect: (temperature coefficient)
  - Music wire - (60 psig range) 0.008 psi/°F
  - Ni-Span-C - (60 psig range) 0.004 psi/°F
  - Drift (Fairprene diaphragm): Less than 0.1% in first 15 minutes to a total of 0.2% long term.
  - (Stainless steel diaphragm): Less than 0.2% in first 15 minutes to a total of 0.8% long term.

Flow Regulation: From 2 sccm to 250 sccm helium, outlet pressure will not decrease more than 0.17 psi for unit with Fairprene diaphragm, 0.3 psi for unit with stainless steel diaphragm.  
 Baseline Oscillation: 0.0012 psi.  
 Precision Adjustment (resolution): 15 turns.

**Regulating Range:**

- 0 - 2.5 psig
- 0 - 5 psig
- 0 - 10 psig
- 0 - 30 psig
- 0 - 60 psig
- 0 - 100 psig

**Connections:** Models 8310 has 1/8" NPT side ports. Model 8311 has bottom ports with 1/8" Compression fitting.

**Ordering Information**

**Model Number and Description**

Example: **8310 A M B F 10**

**Basic Model**

8310  
8311

**Body Material**

A - Aluminum  
S - Stainless Steel

**Spring Material**

M - Music Wire  
N - Ni-Span C

**O-Ring Material**

B - Buna N  
V - Viton

**Diaphragm Material**

F - Fairprene BN-5029  
S - Stainless Steel  
V - Viton

**Spring Range**

2.5  
5  
10  
30  
60  
100

**To order, specify:**

- Model Number
- Body Material
- Spring Material & Range
- Diaphragm Material
- O-Ring Material

Ni-Span-C® - Special Metals Corp.