

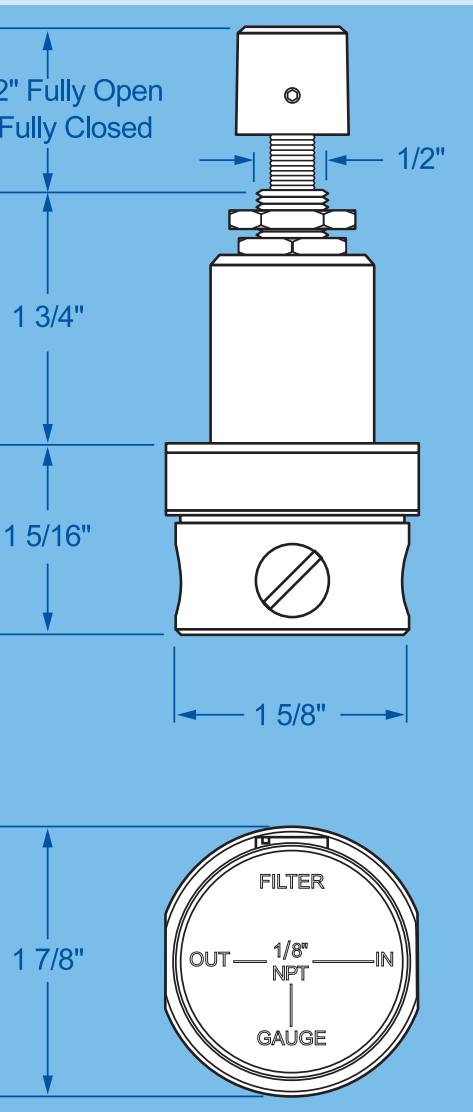
Design Features & Advantages

- 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

Specifications

Ratings: Maximum inlet pressure: 250 psig; Maximum working temperature: 160°F.

Pressure Drop: Minimum: 10 psi; Maximum: 250 psi.



Materials of Construction

Body: Aluminum or Stainless Steel.

Bonnet: Aluminum.

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.

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: 8310: 1/8" FNPT side ports, inlet, outlet and gauge.

8311: Bottom ports with 1/8" compression fittings, inlet, outlet and gauge.

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

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.



PORTER
INSTRUMENT COMPANY, INC.