



BLR50 SERIES

INLET 0 - 6,000 PSIG OUTLET 100 - 5,800 PSIG

Fred C. Gilbert Co.
106 Norris Road
Bakersfield, Ca. 93308
661-399-9569
fax 661-393-9654

DYNADOME PRESSURE REGULATOR

Features

- Quarter Turn Control
- Accurate
- Self Venting
- Highly Reliable
(No Springs, Diaphragms or Pistons)
- High Flow — $C_v = 0.50$
- Excellent Sensitivity
- 100% Tested

Technical Data

Materials of Construction

- Body — Brass
Seats — Nylatron, Kel-F or Polyimide
Seals — Ethylene Propylene, Neoprene, Viton® or Buna

Port Sizes and Connections

- 1/4" , 1/2" Pipe or 1/2" AND10050
1/4" Gauge & Vent Port

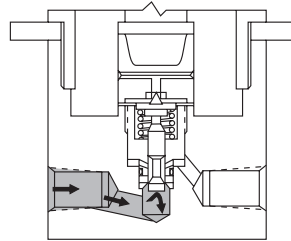
Pressure Ratings

- Inlet — 0 to 6,000 PSIG (414 BAR)
Outlet — 100 to 5,800 PSIG (7 to 400 BAR)

Flow Capacity Temperature Range

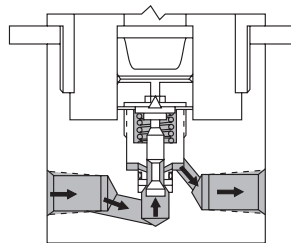
- $C_v = 0.50$ -65°F to +165°F;
ESEOD = 0.166 -54°C to +168°C

How It Works



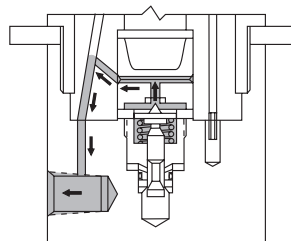
CLOSED

The balanced poppet is spring loaded against the valve seat. When full upstream pressure is applied, a slight unbalanced force is developed which further enhances sealing.



REGULATING

As the downstream process demands flow, the decreasing pressure (acting on the outlet side of the piston) allows the dome pressure force to push the piston down. This in turn unseats the poppet, which permits flow to start and pressure under the piston to gradually increase until a balance is achieved between the dome pressure forces and the opposing downstream pressure forces. The modulation of the poppet position continues in this manner until the process flow demand ceases.



VENTING

When the handle is turned to decrease the regulated pressure level, the dome pressure will vent through the dome vent and the downstream pressure will vent through the piston to the vent port.

 **CIRCLE SEAL CONTROLS, INC.**
A division of CIRCOR International, Inc.

Certified to ISO 9001

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How To Order

BLR50 B 1 1 1 2 G

BASIC PART NUMBER _____

BODY MATERIAL _____
 B - Brass

BODY PART NUMBER/ INLET & OUTLET PORTS _____
 1 - 1/4" Pipe
 2 - 1/2" Pipe
 3 - AND10050-8

OPTIONS
 G - Gauges (0 to 7500 psig)

CLEANING LEVELS
 1 - General Oxygen (GSC/CCD 29.20)
 2 - General Pneumatic S(GEN CL' G)
 3 - Specify (Define on sales order)

SEAT MATERIALS
 1 - Nylatron GS (Standard)
 2 - Kel-F (Limited to 3600 PSIG)
 9 - Polyimide - Vespel SP-21*

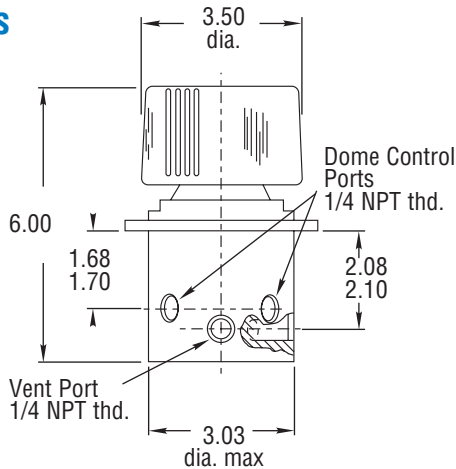
SEAL MATERIAL
 0 - Ethylene Propylene
 1 - Neoprene (Standard)
 3 - Viton®
 4 - Buna N

* For oxygen service: 3600 PSIG max. inlet pressure and temperature range of -20°F to 250°F.

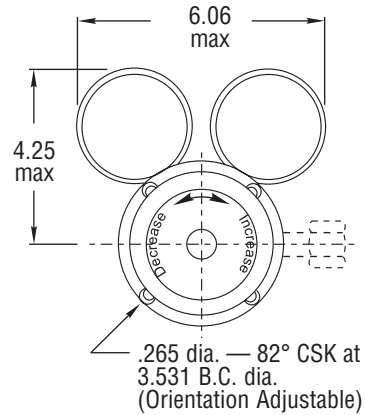
Please consult your Circle Seal Controls Representative or our factory for information on special connections, operating pressures and temperature ranges.

Viton® is a registered trademark of DuPont.

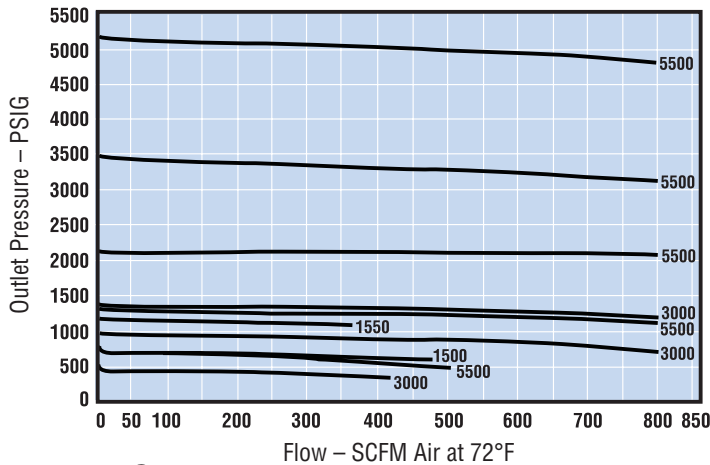
Dimensions



Options



Air Flow Chart



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