

BLR50 SERIES

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



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

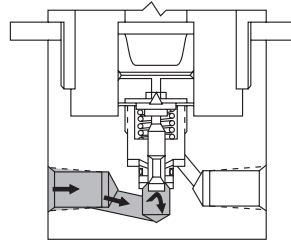
Pressure Ratings

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

Flow Capacity Temperature Range

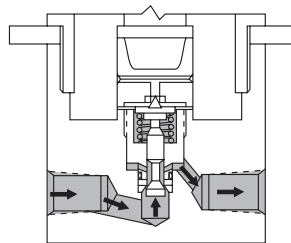
- $C_v = 0.50$ -65°F to +165°F;
- ESEOD = 0.166 -54°C to +168°C

How It Works



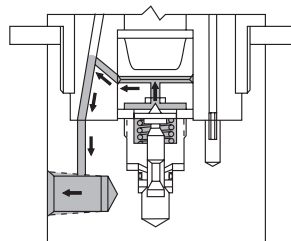
CLOSED

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.**
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Certified to ISO 9001

