

Temco, Inc.

Design Excellence in Core Analysis Instrumentation

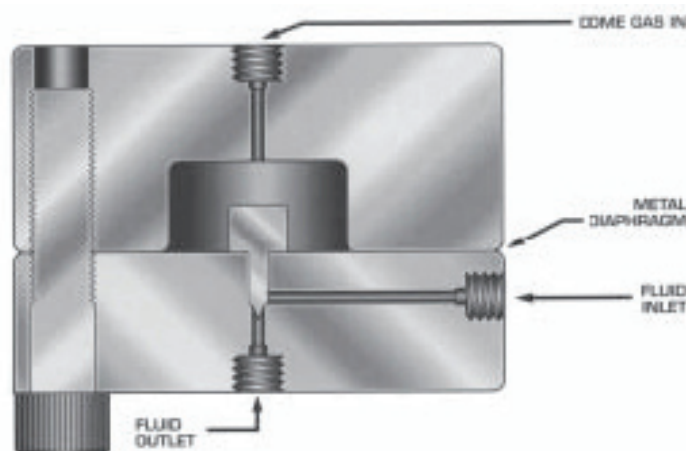
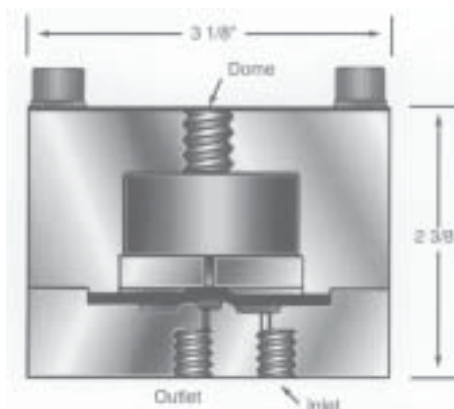
Back Pressure Regulator BP & BPR Series

Temco offers two series of back pressure regulators for the maintenance of pressure in laboratory test systems. These regulators are used in maintaining the pressure in flow studies, PVT studies, Supercritical Fluids tests, and batch and continuous flow reactors. Temco regulators are used to control the flow of either single or multi-phase flow. They operate via a balanced pressure system. Gas, at the desired set point pressure, is injected into the dome of the regulator. This pressure seals off the fluid or gas flow from the process. Once the process pressure into the regulator exceeds the dome pressure, the diaphragm will flex and allow the fluids and gas to pass, thus maintaining the process pressure. When the pressure of the process drops below the dome pressure, the diaphragm will again seal off the process and maintain the pressure.



The BP series offers either an elastomeric diaphragm or a Teflon® diaphragm. The elastomers used are either Buna-N or Viton®. These elastomers are recommended for lower pressure applications, up to 1,000 psi. For higher pressures to 5,000 or 10,000 psi, the Teflon® diaphragm is recommended. In the event that solids may pass through the regulator, the flow ports can be enlarged to prevent possible plugging of the regulator.

The BPR series offers a thin metal diaphragm with a needle assembly attached to the diaphragm. As the diaphragm flexes, the needle assembly is pulled off the seat and fluids and gases can pass through the regulator. This design is recommended for two phase flow or where very precise pressure regulation is required.



These regulators are provided with ports for any type of fitting you require. The internal design is such that the dead volume within the regulator is kept to a minimum. The regulators come standard in stainless steel but are also offered in exotic materials such as Hastelloy B-2 and C, Monel, and Titanium. The normal operating temperature is from room temperature to 212°F (100°C). For higher temperature applications, special materials are provided, up to an operating temperature of 400°F (204°C).

For special applications or requirements, please contact the Engineering Department at Temco, Inc.

Specifications and Ordering Information

Model Type:	BP or BPR
Flow rate range:	1-600 cc/hour
Pressure Ranges:	0-1,000psi (0- 69 bar)
	0-5,000 psi (0- 345 bar)
	0-10,000 psi (0- 690 bar)
	0-15,000 psi (0-1,035 bar)
Temperature Range:	Room Temperature to 200°F (93°C)
	Room Temperature to 350°F (177°C)
	Room Temperature to 400°F (204°C)
Wetted Metal Material:	316 Stainless Steel Standard
	Hastelloy C
	Hastelloy B
	Monel 400
	Titanium 6Al4V
Diaphragm Material:	Buna-N
	Viton®
	Teflon®
	Graphite Filled Teflon®
	Stainless Steel
Port Connections:	to be specified by the customer