



Hydraulik - Pneumatik

Steffen Haupt
Moritzer Straße 35
01589 Riesa

Telefon: 03525 6801-0
Telefax: 03525 680120
info@haupt-hydraulik.de

Back Pressure regulators

4510
Januar 2006

KATALOG

Vertrieb:

Frau Krauspe	03525 680110	krauspe@haupt-hydraulik.de
Frau Göhler	03525 680111	goehler@haupt-hydraulik.de

Technischer Außendienst:

Herr Burkhardt	03525 680113 0173 5834091	burkhardt@haupt-hydraulik.de
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Back Pressure Regulators

Instrument / Analyzer Products

Catalog 4510/USA
January 2006



ABP1 Series Back Pressure Regulator

Parker Hannifin Corporation's Veriflo Division presents the ABP1 Series back pressure regulator.

The ABP1 is a versatile design for the control of inlet, upstream or back pressure in an instrument or analyzer system. The materials of construction of this regulator make it suitable for applications where corrosive media and or environments are present.



Features

- ▶ Standard Hastelloy C-22® diaphragm for superior strength and corrosion resistance.
- ▶ Convoluted diaphragm provides outlet pressure stability with changes in flow.
- ▶ O₂ cleaned.
- ▶ Integral diaphragm stop provides an additional safety measure.

Specifications

Materials of Construction

Wetted

Body	316L Stainless Steel
Seal Choices	PTFE, Fluorocarbon, Kalrez®
Seat O-Ring w/Seal	Fluorocarbon, PTFE
Seat & Holder	316L Stainless Steel
Diaphragm	PTFE-lined Hastelloy C-22®
Diaphragm Assy	316L Stainless Steel, PTFE
Outboard Gasket	PTFE
Screen	316L Stainless Steel

Non-wetted

Cap	303 Stainless Steel
Cap nut	316L Stainless Steel
Knob	ABS Plastic (Black) Optional Metal Knob (Black)

Operating Conditions

Control pressure	1-25 psig (2 barg) 2-50 psig (3.5 barg), 3-100 psig (7 barg) 10-250 psig (17 barg), 20-500 psig (35 barg)
Max. temperature of flow media:	-15°F to 400°F (-26°C to 204°C)

Note: Metal knob option required for higher temperature applications.

Functional Performance

Design proof pressure	750 psig (52 barg)
Design burst pressure	1,500 psig (103 barg)
Flow capacity	C _v 0.3 Optional 0.1 C _v and 0.06 C _v (SEMI Flow Coefficient Test# F-32-0998)

Maximum Inboard Design

Leak Rate

Internal Volume

5.9cc

Standard Connections

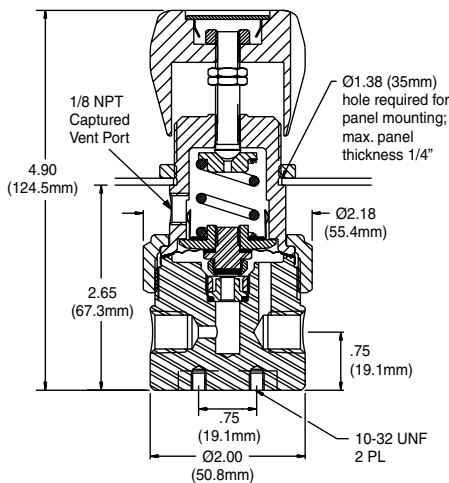
1/8" or 1/4" female pipe threads (NPTF)

Approximate Weight

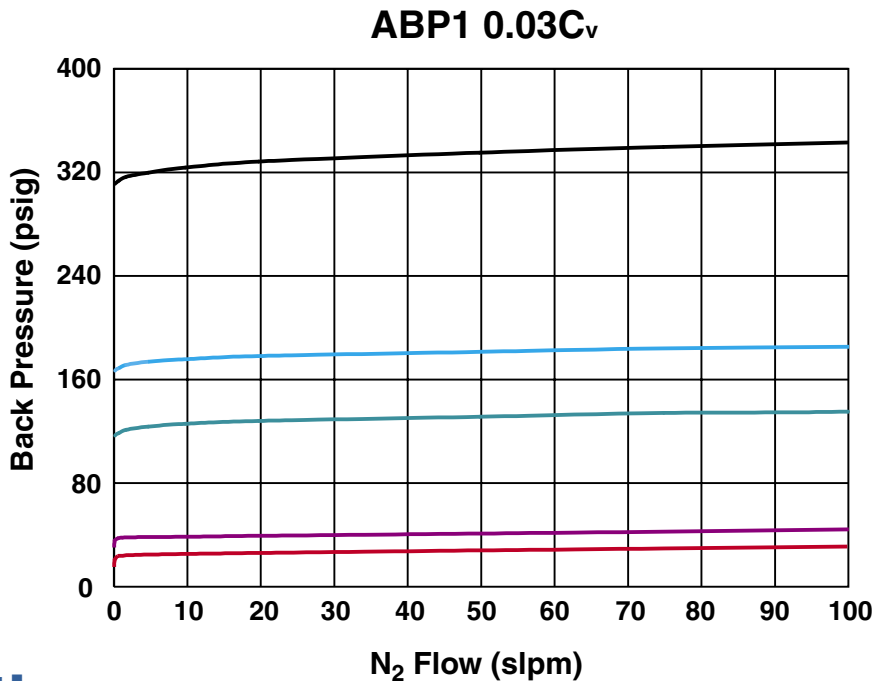
2.3 lbs (1.0 kgm)

Hastelloy C-22® is a registered trademark of Haynes International, Inc. Kalrez® is a registered trademark of DuPont Company.

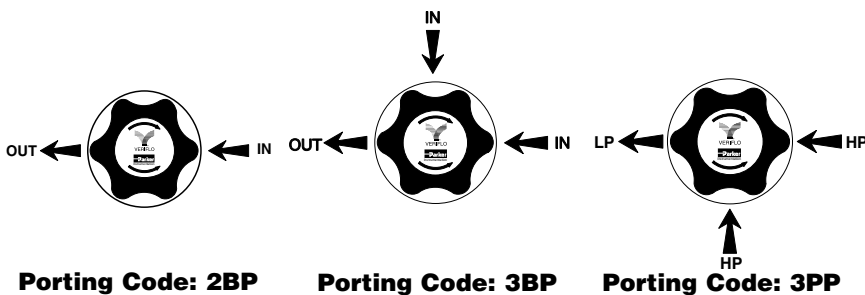
Dimensional Data



Flow Curve



Porting Configurations



Ordering Information

ABP1	S	T	3	3BP	01	4	PM
Basic Series ABP1	Materials S 316L Stainless Steel (Other materials available upon request)	Seat Materials T PTFE V Fluorocarbon K Kalrez®	Pressure Range 1 1-25 psig 2 2-50 psig 3 3-100 psig 4 10-250 psig 5 20-500 psig	Porting 2BP 2 Ports 3BP 3 Ports 3PB 3 Ports (outlet through bottom) 3PP 3 Ports	Inlet Gauge* 03 0-30 psig OL 0-60 psig 01 0-100 psig 4 0-400 psig 6 0-600 psig X No Gauge * Stainless Steel gauges only.	Port Style 2 1/8" NPTF 4 1/4" NPTF	Optional Features DO Dome Load M Metal Knob (Black) PM Panel Mount 06 0.06C _v 1 .1C _v

ABP3 Series Back Pressure Regulator

Parker Hannifin Corporation's Veriflo Division presents the ABP3 Series. This regulator is designed to provide precise inlet, upstream or back pressure control with corrosive media and environments. The large convoluted diaphragm provides the user greater sensitivity of outlet pressures.



Features

- ▶ Larger diaphragm provides more sensitive pressure adjustments.
- ▶ Standard Hastelloy C-22[®] diaphragm is superior in strength and corrosion resistance, which minimizes the hazards of a rupture.
- ▶ Panel mount standard.
- ▶ Convoluted diaphragm provides outlet pressure stability with changes in flow.
- ▶ O₂ cleaned.
- ▶ Integral stop mechanism limits the travel of the diaphragm and will also provide an additional measure of safety to the user.

Specifications

Materials of Construction

Wetted

Body	316L Stainless Steel,
Seal Choices	PTFE, Fluorocarbon, Kalrez [®]
Outboard O-Ring	PTFE, Fluorocarbon, Teflon [®]
Diaphragm	Hastelloy C-22 [®]
Diaphragm Assy	316L Stainless Steel, PTFE
Seat & Holder	316L Stainless Steel
Seat O-Ring	Fluorocarbon
Screen	316L Stainless Steel

Non-wetted

Cap	Nickel Plated Brass
Cap nut	Nickel Plated Brass
Knob	ABS Plastic (Black)
	Optional Metal Knob (Black)

Operating Conditions

Control pressure	1-5 psig (.07-.3 barg)
	1-30 psig (.07-2 barg)
	2-60 psig (.2-4 barg)
Max. temperature of flow media	-15°F to 400°F
	(-26°C to 204°C)

Note: Metal knob option required for higher temperature applications.

Functional Performance

Design proof pressure	90 psig (6 barg)
Design burst pressure	180 psig (12.4 barg)
Flow capacity	C _v = 0.3
	Optional .06 C _v and , 0.1 C _v
	(SEMI Flow coefficient Test #F-32-0998)

Maximum Inboard Design	
Leak Rate	Bubble Tight

Internal Volume

13.8 cc

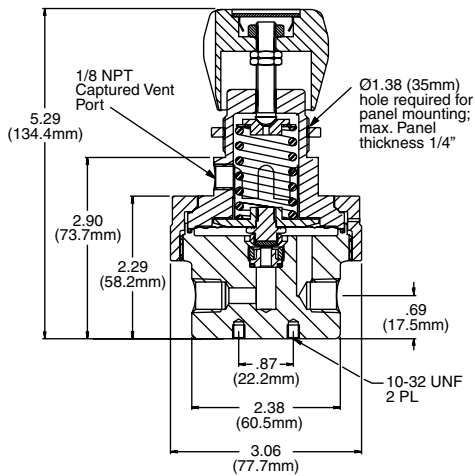
Standard Connections

1/8", or 1/4", female pipe threads (NPT)

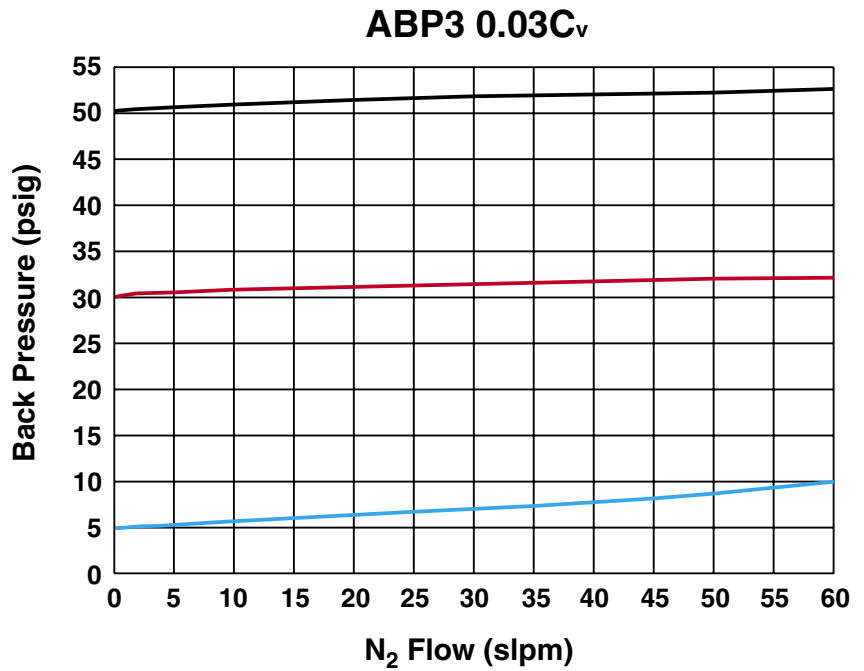
Approximate Weight

4.2 lbs (1.9 kg)

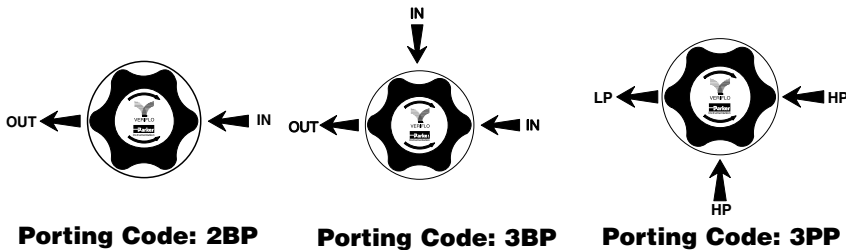
Dimensional Data



Flow Curve



Porting Configurations



Ordering Information

ABP3	S	T	2	3BP	03	4	06
Basic Series ABP3	Materials S 316L Stainless Steel (Other materials available upon request.)	Pressure Range 1 1-5 psig 2 1-30 psig 3 2-60 psig	Porting 2BP 2 Ports 3BP 3 Ports 3PP 3 Ports	Inlet Gauge* 05 0-15 psig 03 0-30 psig OL 0-60 psig 01 0-100 psig X No Gauge * Stainless Steel gauges only.	Optional Features DO Dome Load 06 0.06C _v 1 .1C _v M Metal Knob (Black)	Note: All units are standard with threaded caps (bonnets) and nuts for panel mounting.	
Seat Materials K Kalrez® T PTFE V Fluorocarbon							
Port Style 2 1/8" NPTF 4 1/4" NPTF							



BPR50 Series Back Pressure Regulator

Parker Hannifin Corporation's Veriflo Division presents the BPR50. The BPR50 is a piston style back pressure regulator designed to control upstream or back pressures. The BPR50 can be used with high pressure corrosive and non-corrosive liquids and gases at pressures up to 2,000 psig.



Note: Optional "T" Bar Handle shown

Features

- ▶ 316L Stainless Steel construction
- ▶ Gas or Liquid Service
- ▶ Flow coefficient of 0.45 C_v
- ▶ Simple construction makes maintenance easy
- ▶ Adjustable pressures from 100 to 1,200 psig and 200 to 2000 psig
- ▶ Panel mountable
- ▶ O₂ cleaned

Specifications

Materials of Construction

Wetted

Body	316L Stainless Steel
Seal	Glass filled PTFE, optional PCTFE
Seal Holder	316L Stainless Steel
O-ring	Fluorocarbon, optional Kalrez®
Piston	316L Stainless Steel
Gasket	PTFE
Spring	Stainless Steel

Non-wetted

Cap	Nickel plated Brass
Broach Stem	316L Stainless Steel
T Bar Handle	Nickel Plated Brass

Operating Conditions

Control pressure	100-1,200 psig (7 - 83 barg)
	200-2,000 psig (14 - 138 barg)
Max. temperature of flow media	-15°F to 400°F
	(-26°C to 204°C)

Functional Performance

Design Burst pressure	6,000 psig (414 barg)
Design Proof pressure	3,000 psig (276 barg)
Flow capacity	$C_v = .45$
	(SEMI Flow Coefficient Test #F-32-0998)
Maximum Inboard Design	
Leak Rate	Bubble Tight
Maximum Liquid Flow	20 lpm (5 gpm)
Hysteresis	20 psig (1.4 barg)
Sensitivity	0.5 psig (.03 barg)

Internal Volume

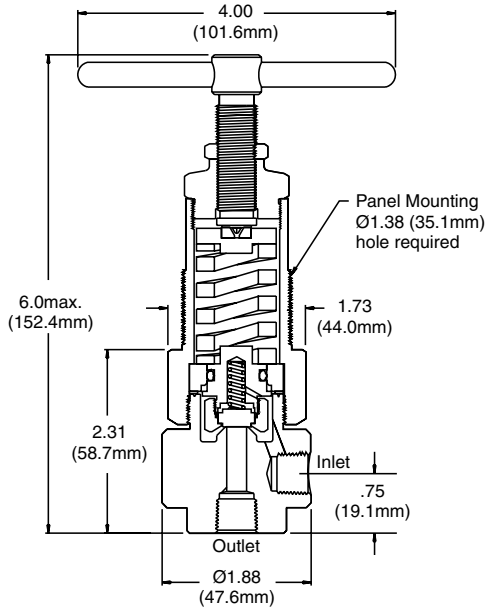
5 cc

Approximate Weight

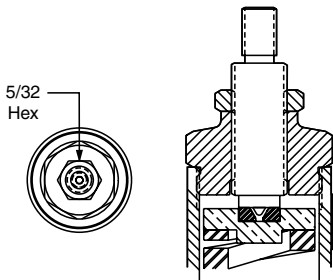
2.2 lbs. (1.0 kg)

Dimensional Data

BPR50 with Optional T Bar Handle Actuation Device

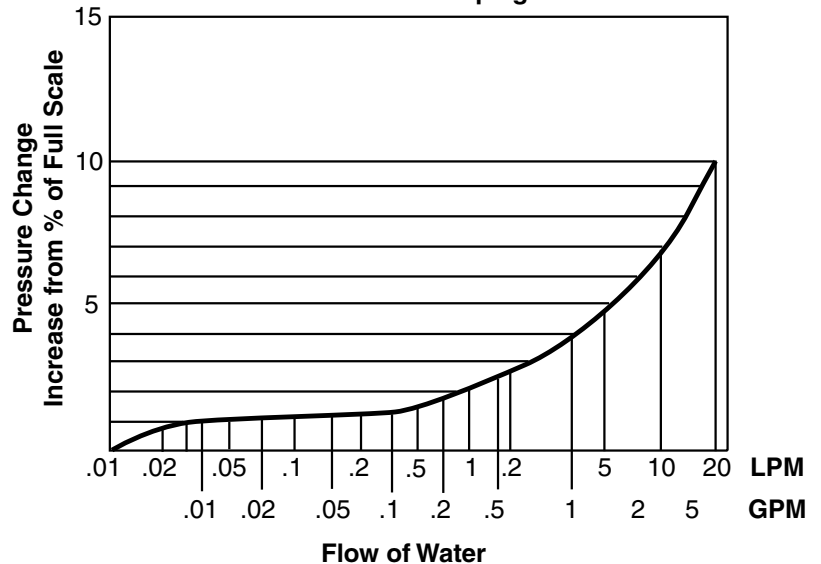


BPR50 with Standard Broach Stem Actuation Device

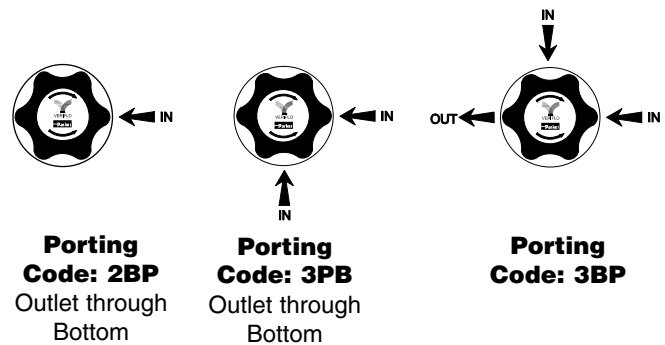


Flow Curve

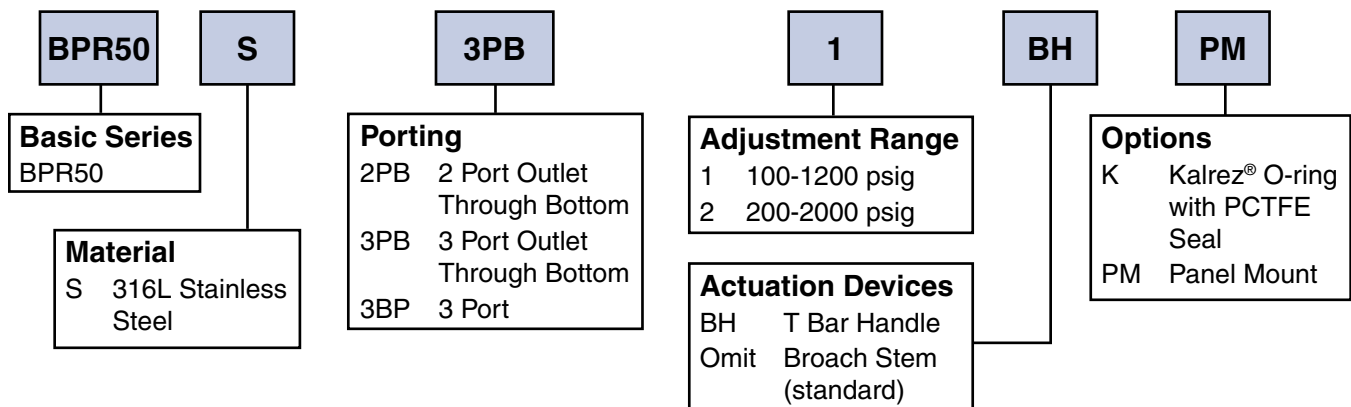
Range: 100-1200 psig
200-2000 psig



Porting Configurations



Ordering Information





Parker Hannifin Corporation
Veriflo Division
250 Canal Boulevard
Richmond, CA 94804-0034
Telephone: 510.235.9590
Fax: 510.232.7396
www.veriflo.com

Catalog 4510, 01/06

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