

Model BV87ALP Two-Stage Differential Pressure Control

Description

The Model BV87ALP Brodie Two-Stage Valve is typically used when handling products exhibiting high vapor pressure found in applications such as LPG or ammonia services.

The BV87ALP is a two-stage control valve designed for differential pressure control, pressure control, maximum rate of flow, and excess flow shut-down. It consists of:

- Basic BV Model Valve
- Two Series BV10 Normally Closed Pilots
- One Series BV11 Normally Open Pilot
- One Series BV70 Differential Pressure Pilot
- One Series BV60 Excess Flow Shut-Down Pilot
- One Series BV54 Maximum Rate of Flow Pilot
- One 3-Way Ball Valve/Excess Flow Shut-Down
- Strainer
- Microswitch
- Pneumatic Controller (Opening Speed)
- Needle Valve (Closing Speed)

Design Features

- Precision flow rate and batch control
- Modular construction -all internal parts including seat ring can be removed with the cylinder assembly without disturbing line connections.
- No diaphragms or stuffing boxes
- 45° body design assures high capacity
- Positive shut-off
- Linear control characteristics with uniform response speed
- Automatic check valve - no reverse flow
- Fail-safe closes on loss of electrical power
- Characterized ports for better low flow response

Maximum Operating Pressure Differential (MOPD):

175 psi (1207.5 kPa) MOPD.

Flange Connections/Ratings (ANSI)

Valve Size	Connections	Max Working Pressure @100F
3"-6"	150 lb. ANSI	285 PSI
3"-6"	300 lb. ANSI	740 PSI

Temperature Range: -20F to 150F (-29C to 66C) Optional 250F (121C)

WARNING

Do NOT operate this instrument in excess of the specifications listed. Failure to heed this warning could result in serious injury and/or damage to the equipment.

Materials of Construction

Main Valve Body: Steel - ASTM-A216-GR-WCB

Main Valve Cylinder: 17-4 PH Stainless Steel, Heat Treated

Main Valve Piston:

Standard: Stainless Steel

Seat Ring: Stainless Steel

O-Rings:

Standard: Viton Dynamic, Buna-N Static

Optional: All Viton, All Buna-N

Other Internal Parts: Stainless Steel

Pilot Valve Body: Steel (Standard)

Pilot Valve Trim: Stainless Steel

Tubings and Fittings: Steel (Standard)

Standard: Steel

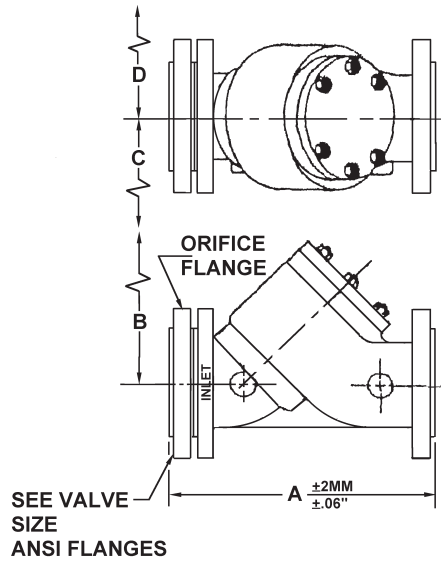
Optional: Stainless Steel

Recommended Spare Parts

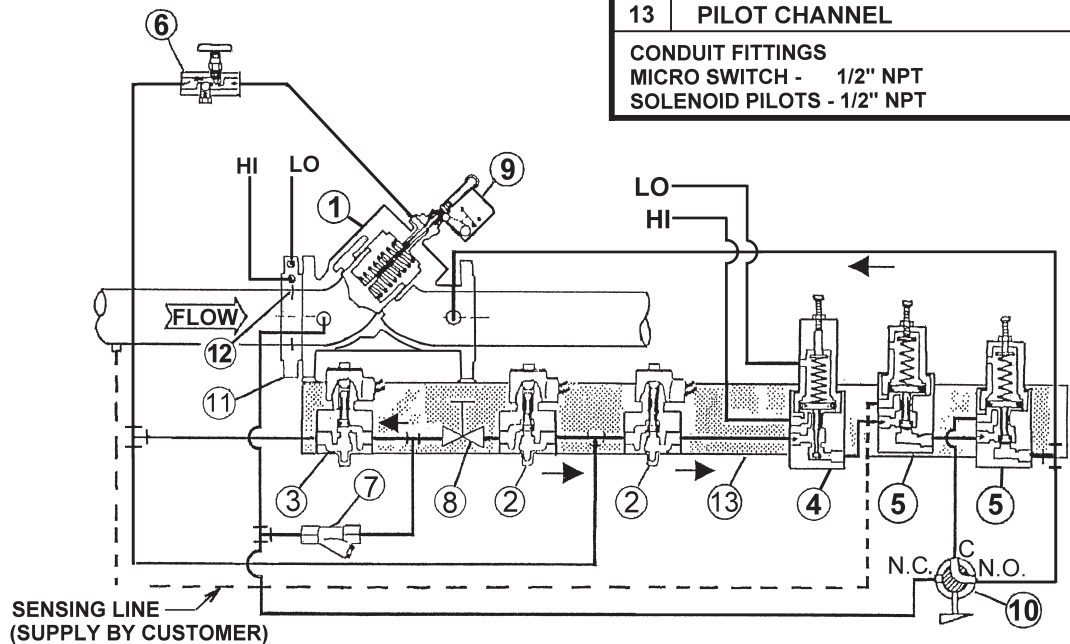
O-Rings

Dimensions (For Certified Dimensional Prints - Consult Factory)

VALVE SIZE	DIMENSIONS IN DECIMAL INCHES					DIMENSIONS IN MILLIMETERS (MM)				
	A		B	C	D	A		B	C	D
	150 LB	300 LB				150 LB	300 LB			
3	12.06	14.18	12.00	15.38	4.13	306	360	305	390	105
4	14.06	15.56	12.50	16.25	5.00	357	395	318	413	127
6	18.06	18.94	15.75	17.50	6.25	459	481	400	445	159



LEGEND	
1	CONTROL VALVE
2	BV10 N.C. STL. SOLENOID PILOT
3	BV11 N.O. STL. SOLENOID PILOT
4	BV54 STL. DIFFERENTIAL CONTROL PILOT
5	BV60 STL. BACK PRESSURE CONTROL PILOT
6	STEEL PNEUTROL VALVE
7	STRAINER
8	NEEDLE VALVE
9	6090 S.P.D.T. MICRO SWITCH
10	3 - WAY VALVE
11	ORIFICE FLANGE
12	ORIFICE PLATE
13	PILOT CHANNEL
CONDUIT FITTINGS	
MICRO SWITCH - 1/2" NPT	
SOLENOID PILOTS - 1/2" NPT	



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19267 Highway 301 North (30461)
 PO Box 450 • Statesboro, GA 30459-0450
 Phone: (912) 489-0200 • Fax: (912) 489-0294
www.brodieintl.com