CV90 CONTROL VALVE

with Capture Energy's Eco Piston™

Beaumont Manufacturing and Distribution Company

CAPTURE Energy

BMD has partnered with Capture Energy to exclusively offer the new Patent Pending ECO Piston. The CV90 with ECO Piston is a completely emissions-free control valve designed to help companies comply with 0000b/c emissions regulations. The ECO Piston operates by utilizing high-pressure input from onsite production equipment to actuate the valve, directing the exhaust back into a lower-pressure system. For example, it can take high pressure from a compressor and route the exhaust to the compressor's suction side or connect to a high-pressure separator and to another lower pressure separator.

The CV90 with ECO Piston features a 1" x 1/2", 1" x 3/4", or 2" x 1" body, BMD's ISO 15848 certified Patent Pending Packing and offers a range of trim sizes and materials. Maintenance is straightforward with the Eco piston allowing service or trim adjustments without removing the valve body from the line. The ECO Piston includes a high-cycle, maintenance-free piston actuator paired with an electric solenoid valve, which is rated for Class I, Div 1 hazardous I locations and comes in 6VDC, 12VDC, or 24VDC options.



SPECIFICATIONS

Connection:
- 1" MNPT x 1/2" FNPT
- 1" MNPT x 3/4" FNPT
- 2" MNPT" x 1" FNPT

Body Type:
- Angle

Trim Characteristic:
- Equal Percent
- Linear
- Quick Open

Trim Size:
- 0.125" (1/8)
- 0.188" (3/16)
- 0.25" (1/4)
- 0.375" (3/8)
- 0.50" (1/2)

Stem Travel:
- 0.50"

Pressure Rating:
- 4000 psi

Temperature Range:
- -20° F to 400° F (-29° C to 204° C)

Actuator Max pressure:
- 2000 psi

Actuator Maximum Differential:
- 250 psi

Actuator Minimum Differential:
- 40 psi

Shutoff:
- ANSI Class IV

Piston Size:
- 2.5"

Input Voltage:
- 24VDC
- 12VDC
- 6VDC

Haz. Loc. Rating:
- Class 1, Div 1

Approximate Weight:
- 19 lbs.

MATERIALS

Body:
- A105 Steel

Packing Plug:
- A105 Steel Zinc Plated Trim

Stem:
- 304 Stainless

Piston Housing:
- Stainless Steel

Trim:
- Standard: 440C Stainless/D2 Tool Steel Seat
- Corrosive: 316 Stainless/304 Stainless Seat
- Erosive: Carbide/Carbide Seat

CV VALUES

CV VALUES AT 100% OPEN

TRIM TYPE	TRIM SIZE	Cv
Linear	0.125	1.1
	0.188	1.5
	0.25	2.17
	0.375	3.2
	0.50	5.7
Equal Percent	0.125	0.34
	0.25	1.99
	0.50	6.49
Quick Open (Carbide)	0.188	0.92
	0.25	1.74
	0.375	3.86
	0.50	5.93

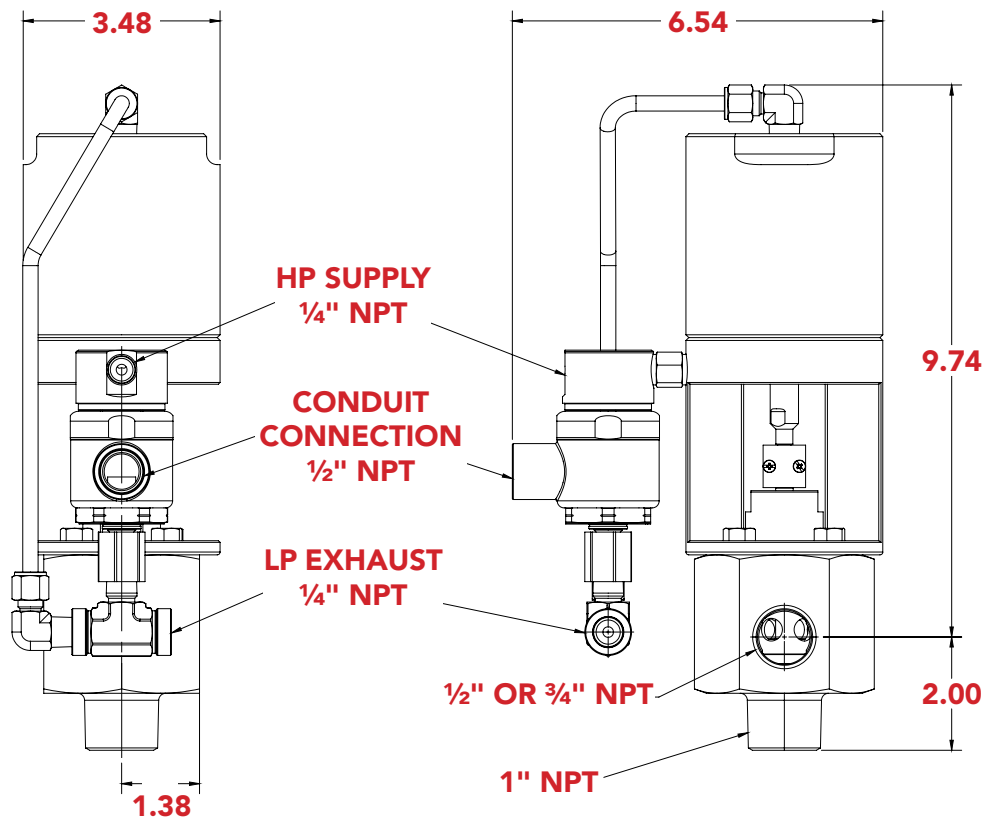
SHUTOFF PRESSURE RATINGS

MAX SHUTOFF PRESSURE AND PISTON DIFFERENTIAL REQUIRED

TRIM SIZE	MAX VALVE SHUTOFF	PISTON DIFFERENTIAL	MAX VALVE SHUTOFF	PISTON DIFFERENTIAL	MAX VALVE SHUTOFF	PISTON DIFFERENTIAL
	LIGHT SPRING		MEDIUM SPRING		HEAVY SPRING	
0.125"	1710	43	4000	88	4000	123
0.188"	1710	43	4000	88	4000	123
0.25"	1710	43	4000	88	4000	123
0.375"	808	43	2233	88	3000	123
0.5"	523	43	1188	88	1995	123

DIMENSIONS

Dimensions in inches



HOW TO ORDER

EXAMPLE MODEL NO. ***CV90-1R2P-CB-21E***

CV90 Eco Series Control Valve, 1" x 1/2" Body, Reverse acting, Medium Spring, 24V, Carbon Steel with Buna Seals, 0.125" Trim, Standard Service with Equal Percent trim.

CV90 - 1 R 2 P - C B - 2 1 E

SERIES

BODY
1 - 1" MNPT x 1/2" FNPT
2 - 1" MNPT x 3/4" FNPT
3 - 2" MNPT" x 1" FNPT

ACTUATOR
D - Direct (Fail Open)
R - Reverse (Fail Close)

SPRING
1 - Light
2 - Medium
3 - Heavy

VOLTAGE
P - 24V
Q - 12V
R - 12V

MATERIALS
C - Carbon Steel
N - Carbon Steel NACE

SEALS
B - Buna
V - Viton®

TRIM SIZE
2 - 0.125"
3- 0.188"
4 - 0.35"
6 - 0.375"
8 - 0.50"

SERVICE
1 - Standard Service
2 - Corrosive Service
3 - Erosive Service

TRIM TYPE
L - Linear
E - Equal Percent
Q - Quick Open

Repair Kits Available
** See Cv Values Chart for trim size/type combinations*

BEAUMONTMANUFACTURING.COM

PHONE: 409.225.5863
850 FANNIN STREET, BEAUMONT, TEXAS 77701

09/2026

Beaumont Manufacturing and Distribution Company