



— MODEL — **731-01**

Electronic Interface Control Valve



- Ideal For Use with SCADA Systems
- Accepts Local or Remote Set Point
- Accurate Flow and Pressure Control
- Reliable Hydraulic Operation
- Rugged Durable Design

Description

The Cla-Val Model 731-01 Electronic Interface Control Valves are designed specifically for applications where control of the valve with electrical signals is preferred. It is a hydraulically operated, pilot control actuated automatic valve. The solenoid pilot controls are actuated by electrical signals from the optional electronic controller. The solenoid pilots either add or relieve line pressure from the loading chamber of the valve, causing it to open or close as directed by the electronic controller.

Series 731-01 valves can be configured to perform a wide range of functions, such as; pressure reducing, pressure sustaining, flow control, or level control. The electric controls can also be combined with hydraulic controls to create dual function, or fail-safe capability.

Performance Specification

Capacity:	See Technical Data Sheet
C _f Factor:	0.9
Cavitation:	See Technical Data Sheet
Rangeability:	500:1
Bearing Friction:	No friction from slip-type bearings

Design Specification

Sizes:	2, 3, 4, and 6 inch wafer style 6, 8, 10, and 12 inch flanged 6, 8, 10, 12 inch Victaulic® Ends
End Detail Wafer:	Fits ANSI B16.5 class 125,150, 250, and 300 flanges
End Detail Flanged:	ANSI B16.5 class 150 (fits class 125) or ANSI B16.5 class 300 (fits class 250)
End Detail Victaulic®:	Fits standard steel pipe
Operating Pressure:	720 psi maximum Victaulic® Ends - 300 psi max.
Maximum Differential:	150 psid continuous, 225 psid intermittent* 125 psid maximum
Reverse Pressure:	32 to 160 degrees F*
Temperature Range:	32 to 160 degrees F*
Flange Operating Pressure:	Class 125-175 psi maximum Class 150-275 psi maximum Class 250-300 psi maximum Class 300-720 psi maximum
Victaulic® Ends Rating:	300 psi maximum
Solenoid Enclosure:	NEMA IV Watertight (std) NEMA VII Explosion Proof (available)
Solenoid Voltages:	115, 230, 460 for 50, 60 HZ
	6,12, 24,120, 240 VDC

*Standard natural rubber 65 durometer in water service.
Temperature range depends on liner material. Higher differential pressure ratings available.

For other than standard ANSI flanges consult factory

Din drilling available on all sizes

Purchase Specification

The two-way solenoid pilots alternately applies pressure to or exhausts pressure from the loading chamber of the main valve which in turn causes the main valve to open or close.

The control valve shall be constructed of two parts: a stainless steel body, and an elastomeric liner or control element. Minimum rangeability shall be 500:1 based on capacity at flowing pressure conditions. Cf shall be greater than or equal to 0.9. Valve and control system shall be similar in all respects to Cla-Val Model 731-01 as manufactured by Cla-Val, Newport Beach, California.

Material Specification

Body:	316L Stainless Steel
Liner:	Natural Rubber, 65 durometer (standard) Viton, EPDM, Nitrile, Silicone (available)
Liner Retainer:	316 Stainless Steel

Solenoid Pilot

Body:	Brass*
Wetted Parts:	Brass/Stainless Steel, Buna-N®*

Accessories

Shut-off Cock:	Brass*
Speed Controls:	Brass*
Check Controls:	Brass*
"Y" Strainer:	Bronze*
Control Piping:	Copper*
Control Fittings:	Brass*

*316 stainless steel available



731-01 Basic Components

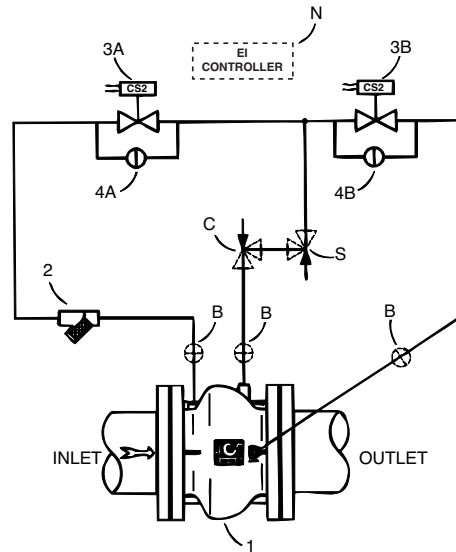
Item	Description
1	100-42 Roll Seal Main Valve
2	X43 "Y" Strainer
3	CS2 Solenoid Control
4	CK2 Cock (Solenoid Bypass)

Optional Features

Item	Description
B	CK2 Cock (Isolation Valve)
C	CV Flow Control (Closing)
N	Electronic Controller (Single)
S	CV Flow Control (Opening)

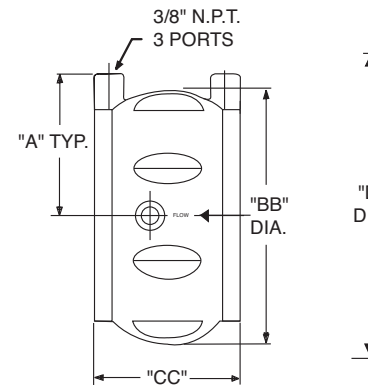
* The opening & closing speed controls (optional) on this valve should always be open at least 3 turns off their seats, at start-up.

** Solenoid requires operating voltage, enclosure type, and normally open or normally closed.



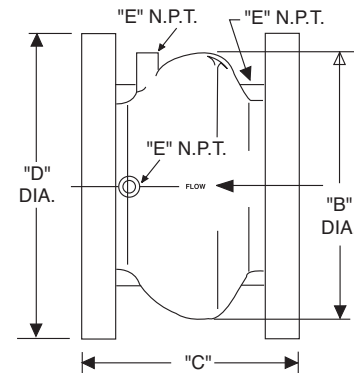
Dimensions (100-42 Main Valve)

Valve Size (Inches)	2	3	4	6	8	10	12
A	2 7/8	3 9/16	4 1/8	5 1/4	—	—	—
B	—	—	—	10 7/8	14 3/8	18	21 5/8
BB	4 3/8	5 7/8	7 3/8	9 13/16	—	—	—
C	—	—	—	9	11	13	15 1/4
CC	2 1/2	3 1/4	4	5 1/2	—	—	—
D (ANSI 150)	—	—	—	11	13 1/2	16	19
D (ANSI 300)	—	—	—	12 1/2	15	17 1/2	20 1/2
E (Ports)	—	—	—	3/8	3/8	1/2	1/2
Approx. Wt. (150 lbs.)	4	7 1/2	14	58	115	190	290
Approx. Wt. (300 lbs.)	4	7 1/2	14	87	155	250	375



2", 3", 4" and 6" Wafer Style

VALVE SIZE (mm)	50	80	100	150	200	250	300
A	73	90	105	140	-	-	-
B	-	-	-	276	365	457	549
BB	111	149	187	249	-	-	-
C	-	-	-	229	279	330	387
CC	64	83	120	140	-	-	-
D (ANSI 150)	-	-	-	279	343	406	483
D (ANSI 300)	-	-	-	318	381	445	521
E (Ports) -	-	-	10	10	13	13	-
Approx. kg. (150lbs.)	1.81	3.63	6.35	30	54.43	89	151.50
Approx. kg. (150lbs.)with Studs & Nuts	2.72	4.54	10	-	-	-	-
Approx. kg. (300lbs.)	1.81	3.63	6.35	41.73	72.57	116.57	191
Approx. kg. (300lbs.)with Studs & Nuts	5	6.35	11.80	-	-	-	-



6", 8", 10" and 12" Flanged Style

When Ordering Please Specify:

- Catalog No. 731-01
- Valve Size
- Fluid Being Handled
- Fluid Temperature Range
- Inlet Pressure Range
- Outlet Pressure Range
- Maximum Differential Pressure
- Minimum Differential Pressure
- Maximum Flow Rate
- Voltage & NO, NC



E-731-01 (R-3/2011)

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