

136-01 (Sizes 1/2"-4")

(Full Internal Port)

MODEL _____

636-01 (Sizes 3"-6")

(Reduced Internal Port)



Solenoid Control Valve



- **Fast Acting Solenoid Control**
- **Reliable, Drip-Tight Shut-Off**
- **Simple Design, Proven Reliable**
- **Optional Check Feature**
- **Easy Installation and Maintenance**

The Cla-Val Model 136-01/636-01 Solenoid Control Valve is an on-off control valve that either opens or closes upon receiving an electrical signal to the solenoid pilot control. This valve consists of a Hytrol main valve and a three-way solenoid valve that alternately applies pressure to or relieves pressure from the diaphragm chamber of the main valve. It is furnished either normally open (de-energized solenoid to open) or normally closed (energized solenoid to open).

If the check feature option is added and a pressure reversal occurs, the downstream pressure is admitted into the main valve cover chamber and the valve closes to prevent return flow.

Schematic Diagram

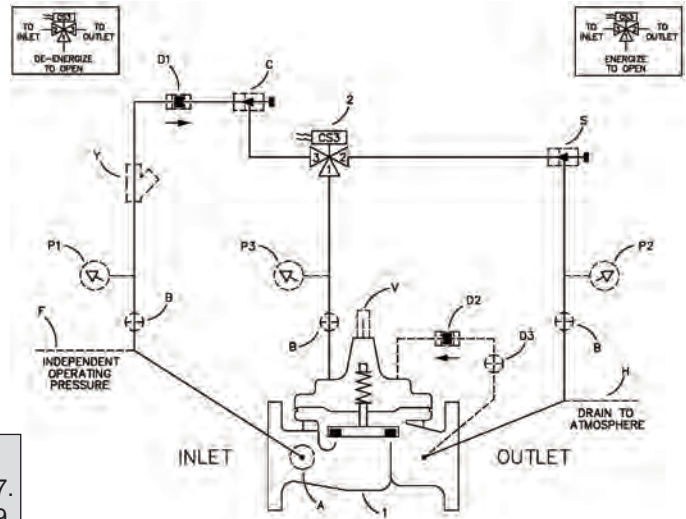
Item	Description
1	100-01 Hytrol Main Valve
2	CS3 Solenoid Control



Optional Features

Item	Description
A	X46A Flow Clean Strainer
B	CK2 Isolation Valve
C	CNA Closing Speed Control
D	Check Valves with Isolation Valve
P	X141 Pressure Gauge
S	CNA Needle Valve (Opening)
V	X101 Valve Position Indicator
Y	X43 "Y" Strainer

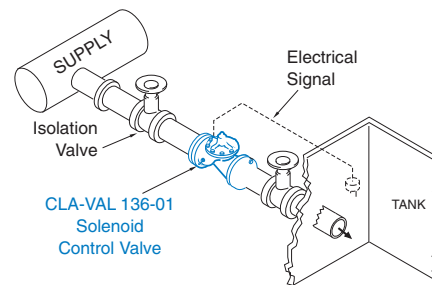
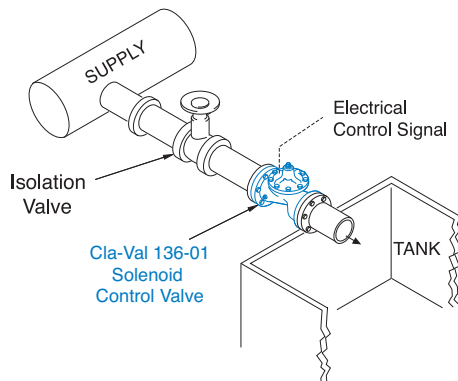
NSF/ANSI 372:
National Lead Free
Mandate "Reduction
of Lead in Drinking
Water Act"



Product Dimensions Data:

For the 136-01 Main Valve (100-01) dimensions, see pages 17.
For the 636-01 Main Valve (100-20) dimensions, see pages 29.

Typical Applications



Industrial uses for the solenoid control valve are many and include accurate control of process water for batching, mixing, washing, blending or other on-off type uses.

Liquid level control can be provided by using a float switch or electrode probe which sends an electrical signal to open or close the valve as needed.



136-03 (Sizes 4" and Larger)
(Full Internal Port)

MODEL

636-03 (Sizes 6" and Larger)
(Reduced Internal Port)

Solenoid Control Valve



- Fast Acting Solenoid Control
- Drip Tight Shut-Off
- Simple Design, Proven Reliable
- Optional Check Feature
- Easy Installation & Maintenance

The Cla-Val Model 136-03/636-03 Solenoid Control Valve is an on-off control valve which either opens fully or closes drip-tight upon receiving an electrical signal to the solenoid pilot control. This valve consists of a Hytrol main valve, a three way solenoid and a high capacity three-way pilot valve. The solenoid control operates the three-way valve which alternately applies pressure to or relieves pressure from the diaphragm chamber of the main valve. It is furnished either normally open (de-energize solenoid to open) or normally closed (energize solenoid to open).

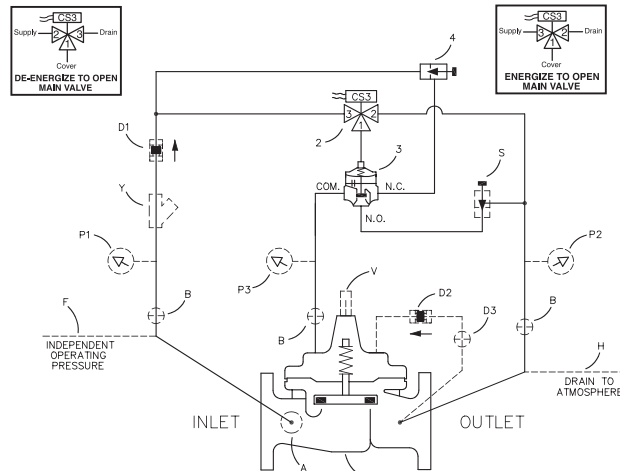
If the check feature option is added and a pressure reversal occurs, the downstream pressure is admitted into the main valve cover chamber and the valve closes to prevent return flow.

Schematic Diagram

Item	Description
1	100-01 Hytrol Main Valve
2	CS3 Solenoid Control
3	102C-3H Three-Way Valve
4	CNA Needle Valve (Closing)



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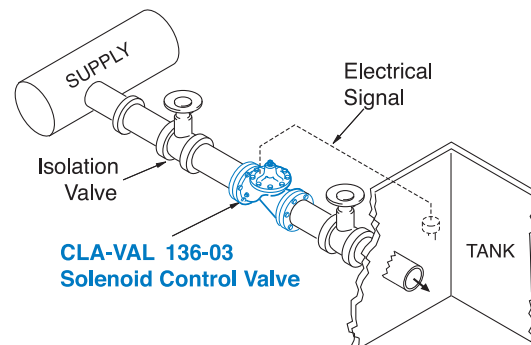
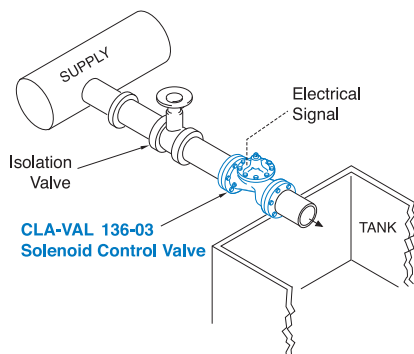
Optional Features

Item	Description
A	X46 Flow Clean Strainer
B	CK2 Isolation Valve
D	Check Valves With Isolation Valve
F	Independent Operating Pressure
H	Atmospheric Drain
P	X141 Pressure Gauge
S	CNA Needle Valve (Opening)
V	X101 Valve Position Indicator
Y	X43 "Y" Strainer

Product Dimensions Data:

For the 136-03 Main Valve (100-01) dimensions, see pages 17.
For the 636-03 Main Valve (100-20) dimensions, see pages 29.

Typical Applications



Industrial uses for the solenoid control valve are many and include accurate control of process water for batching, mixing, washing, blending or other on-off type uses.

Liquid level control can be provided by using a float switch or electrode probe which sends an electrical signal to open or close the valve as needed.

139-10 — MODEL — Programmable Timer Control Valve



- Precise Valve On-Off Control
- Completely Self-contained
- High Energy Efficiency
- Retains Stored Data Even After Battery is Depleted
- Direct Control of Valve Opening and Closing 4 Times Daily
- IP68 submersible Timer Control can be factory preset
- Use this valve for Pressure Management and Water Quality Control applications
- Combines with Pressure, Flow or Level Control
- Ideal for Remote Valve Location Control

The Cla-Val Model 139-10 Programmable Timer Control Valve is an on-off control valve for applications using a programmable time schedule. Using the CTC-33 Electronic Timer Control up to four opening and closing times per day can be set for a weekly schedule.

Timer function and parameters are changed using downloadable software from the Cla-Val website www.cla-val.com and special USB cable (part number 20519203A). Future software and firmware upgrades will be available from Cla-Val website. Powered by a long-life lithium battery, the CTC-33 control offers exceptional valve control for remote locations and other valve automation applications.

Schematic Diagram

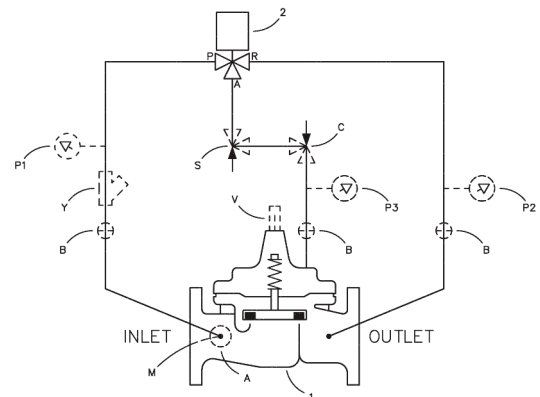
Item	Description
1	100-10 Hytrol Main Valve
2	CTC-33 Electronic Timer Control

Optional Features

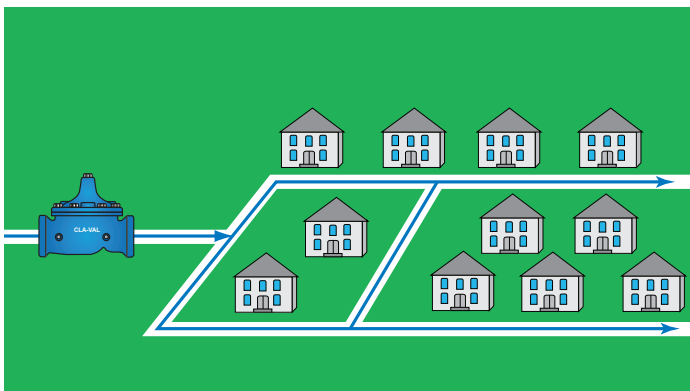
Item	Description
A	X46A Flow Clean Strainer
B	CK2 Isolation Valve
P	X141 Pressure Gauge
V	X101 Valve Position Indicator
Y	X43 "Y" Strainer



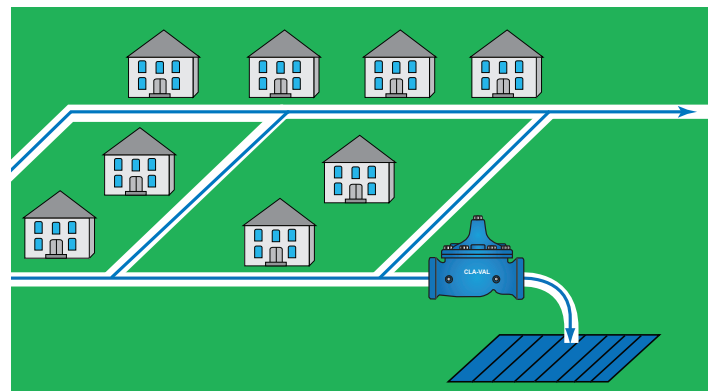
see page 3 for approvals



Typical Applications



The CTC-33 Timer Control is used for pressure management applications in water distribution systems where SCADA control is not available. Use a 139 Series Cla-Val Pressure Control Valve equipped with the CTC-33 Timer to change pressure during periods of high and low demand according to pre-set schedule to reduce leaks and pipe burst frequency, while delivering adequate supply.



The CTC-33 Electronic Timer Control is used in 139 Series Control Valves to automate circulating water requirements in distribution system applications. Valve opening and closing time of day and duration can be set according to system requirements for convenient flushing and circulating during times of low flow to optimize water quality.



— MODEL —

CTC-33

Electronic Timer Control



- Precise valve on-off control
- Completely self-contained
- Programmable daylight savings times
- High energy efficiency
- Battery life exceeds 2 years
- Retains stored data even after battery is depleted
- Direct control of valve opening and closing 4 times daily
- IP68 submersible
- Use this valve for Pressure Management and Water Quality Control applications
- Combines with pressure, flow or level control
- Ideal for remote valve location control

The Cla-Val CTC-33 Electronic Timer Control is a battery powered, programmable on-off control used for opening and closing Cla-Val main valves according to time schedule. Up to four opening and closing times per day can be set for a weekly schedule.

The CTC-33 offers powerful valve control for remote locations and valve automation applications.

Materials

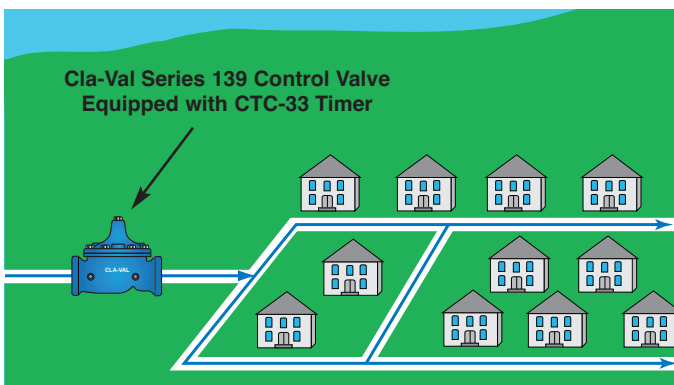
Electronic Enclosure:	PVC
Solenoid Body:	Stainless Steel
Seals:	NBR
Programming Interface:	Compatible with Windows 8, 7 Vista and XP

CTC-33 Electronic Timer Control Specifications

Maximum Pressure:	232 psi (16 bar)
Temperature Range:	14° - 176°F (-10° - +80°C)
Battery:	14° - 140°F (-10° - +60°C)
Enclosure Protection:	IP68; Validated 1 month at 0.2 bar (2m water depth)
Battery Type:	Lithium 9V/PP3 (Lifetime: ~2 years for 2 actions/day @ 20°C)
Solenoid:	3-Way Bi-Stable Orifice Size: 0.05 in (1.2mm) Voltage: 6VDC (minimum)
Rules:	Up to 8 actions (4X opening-closing per day) • Time and calendar
Fluids:	Water
Port Size:	1/8-inch FNPT Threaded

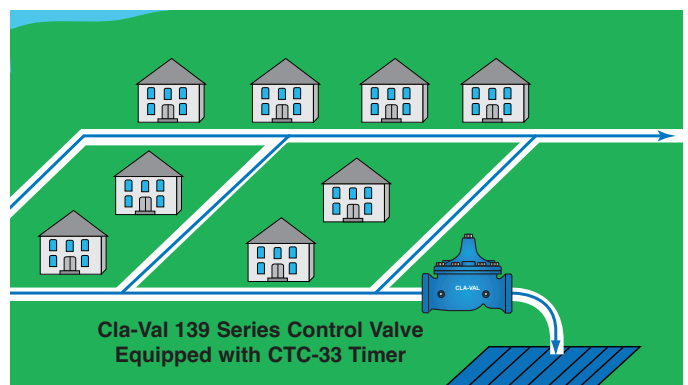
CTC-33 Electronic Timer Control Typical Applications

Pressure Management / Water Savings



The CTC-33 Timer Control is used for pressure management applications in water distribution systems where SCADA control is not available. Use a 139 Series Cla-Val Pressure Control Valve equipped with the CTC-33 Timer to change pressure during periods of high and low demand according to pre-set schedule to reduce leaks and pipe burst frequency, while delivering adequate supply.

Maintaining Water Quality



The CTC-33 Electronic Timer Control is used in 139 Series Control Valves to automate circulating water requirements in distribution system applications. Valve opening and closing time of day and duration can be set according to system requirements for convenient flushing and circulating during times of low flow to optimize water quality.