

340-02

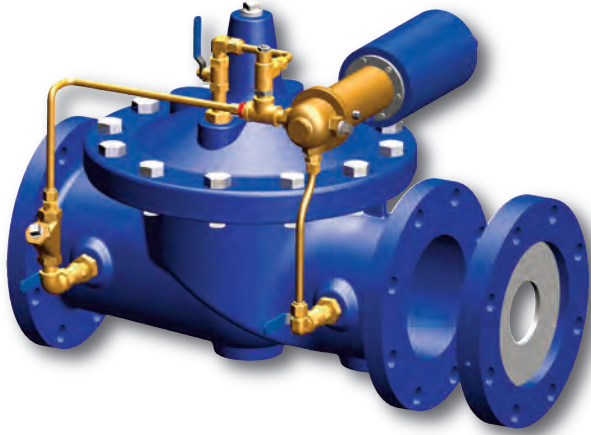
(Full Internal Port)

MODEL

3640-02

(Reduced Internal Port)

Electronic Actuated Rate of Flow Control Valve



- Simplified Remote Valve Set-Point Control
- 12 to 24 VDC Input Power
- Isolated Input
- Reverse Polarity Protection
- Reliable Hydraulic Operation
- IP-68 Submersible
- Use with the VC-22D Electronic Controller

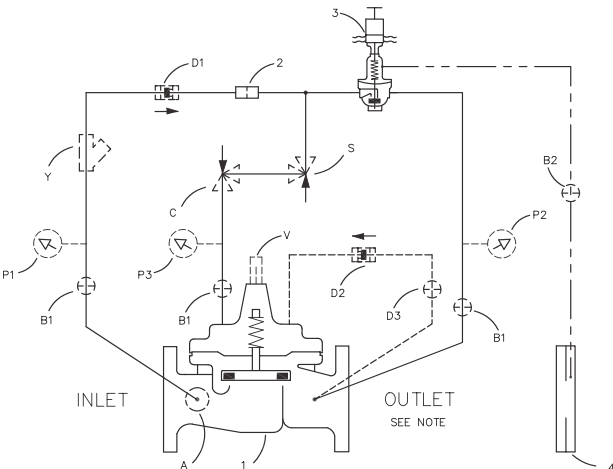
The Cla-Val Model 340-02/3640-02 Electronic Actuated Rate of Flow Control Valve combines the precise control of field proven Cla-Val hydraulic pilots and simple remote valve control. The Model 340-02/3640-02 valve controls flow by limiting flow to a preselected maximum rate (within a four to one ratio), regardless of changing line pressure. It is a hydraulically operated, pilot controlled, diaphragm actuated control valve. The valve uses a CDHS-34 actuated pilot control, consisting of a hydraulic pilot and integral controller that accepts a remote set-point command input and makes set-point adjustments to the pilot. The recommended control method is simple remote set point change from an RTU (Remote Telemetry Unit) to the CDHS-34 where the 4-20 mA command signal is ranged to specific flow range of orifice plate and hydraulic pilot control components. Very accurate control can be achieved when span does not exceed 4:1 turndown. Since the CDHS-34 is pre-ranged to full spring range, some on-site calibration may be necessary when this control method is used. Free downloadable software is available from Cla-Val website for this purpose. The CDHS-34 can also accommodate control systems where the RTU compares flow rate transmitter signal to the remote set point command signal. The RTU adjusts the CDHS-34 with 4-20 mA command signal containing an adequate deadband to prevent actuator dithering after the two signals agree. Internal continuous electronic monitoring of actuator position results in virtually instantaneous position change with no backlash or dithering when control signal is changed. In the event of a power or control input failure, the CDHS-34 pilot remains in hydraulic control virtually assuring system stability under changing conditions. If check feature ("D") is added, and pressure reversal occurs, the valve closes to prevent return flow.

Schematic Diagram

Item	Description
1	100-01 Hytrol Main Valve
2	X58C Restriction Fitting
3	CDHS-34 Electronic Differential Control
4	X52E Orifice Plate Assembly

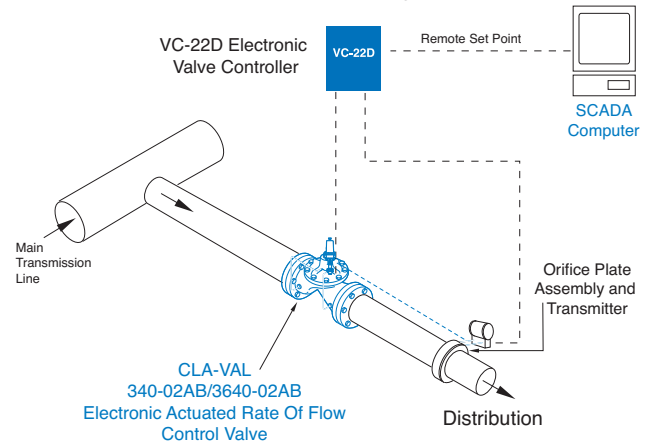
Optional Features

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



Typical Applications

The valve is designed to be used with supervisor control systems (SCADA), having an isolated remote analog set-point output and a process variable flow transmitter input. It is also an effective solution for lowering costs associated with "confined space" requirements by eliminating the need for entry into valve structure for set-point adjustments and system information. Additional pilot controls, hydraulic and/or electronic, can be easily added to perform multiple control functions to fit exact system requirements.



Product Dimensions Data:

For the 340-02 Main Valve (100-01) dimensions, see pages 17.
 For the 3640-02 Main Valve (100-20) dimensions, see pages 29.