

Cla-Val D35

Autonomous Electronic Valve Controller

- 2 latching solenoid control based on customizable conditions
- Time, flow, level and/or pressure control modes
- Data communication through 4G LTE-M & NB-IoT to any custom server
- Full remote configuration from CLA-VAL Link2Valves™
- On site wireless configuration from any smartphone, tablet, or PC
- 6 input channels
- Standard 5-year autonomy*
- IP68 protection



***Leading
the Innovation***

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Autonomous Electronic Valve Controller

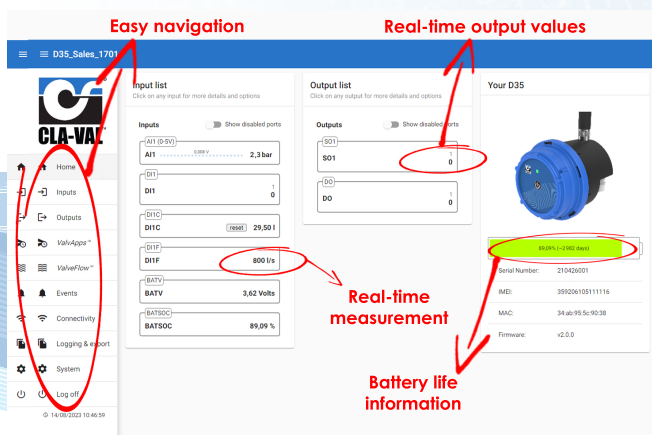
DESCRIPTION

CLA-VAL D35 is an ultra-low-power autonomous electronic valve controller switching one or two latching solenoids based on customizable conditions to control valves in locations where no electrical energy is available or independent supply from grid power is required.

D35 allows quick and easy commissioning, thanks to its compact and ergonomic design, and user-intuitive configuration. D35 can be configured from any smartphone, tablet, or computer via WiFi (auto-generated). No need for cables or special software. Its intuitive user interface allows easy configuration and real-time information including inputs values, actions, activation conditions, battery capacity or other system settings.

To ease deployment, product configurations can be saved and loaded in multiple devices.

CLA-VAL D35 controller is pre-loaded with condition scenarios, which can be customized for a wide variety of applications, such as 2-stage pressure modulation or flushing valves.



Its large internal memory allows data logging over the product lifetime. The D35 can optionally implement data communication through the new generation 4G network, optimized for data communication (IoT).

The product can be connected to a custom remote server of your choice, or alternatively interfaced to the **CLA-VAL Link2Valves™** platform for easy, security-proven, and complete integration with full remote configuration.

TYPICAL APPLICATIONS

Flushing Valve

CLA-VAL D35-32-27 is a flushing valve designed to automatically open/close valves, allowing smooth flushing of a pipeline or network. The user defines the opening/closing conditions.

For instance, opening based on a calendar condition, and closing the valve after a certain volume of water went through it.



Dual-Stage Pressure Modulation

CLA-VAL D35-90-36 is a dual stage pressure reducing valve, switching between high pressure and low pressure according to time of the day and/or flow, or upon remote command. This valve is typically designed for pressure modulation according to high and low water demand periods in distribution networks.



The CLA-VAL retrofit kit can transform a standard CLA-VAL Pressure Reducing Valve into a 2-stage modulating valve in less than 15 minutes.

FLOW CALCULATION ALGORITHM

D35 implements powerful processors, embedding intelligent algorithms, such as **CLA-VAL ValveFlow™** flowrate computation based on the inlet/outlet pressures and the valve position with the **CLA-VAL e-Lift-35**. With only three basic sensors, four hydraulic datasets are available (inlet pressure, outlet pressure, valve position and flowrate).

The calculated flow can be transmitted to an external system through the **D35** pulse output.

Refer to the **ValveFlow™** specific documentation for additional details.

SPECIFICATION*

Power Supply

- Internal lithium battery (replaceable)
- Option: high-capacity lithium external battery
- Option: external power supply (6-24 VDC) compatible with CLA-VAL e-Power MP turbine

Inputs

- 4x analog (ratiometric / 0-5 V / 0-10 V)
- 2x digital (dry contact or pulse)

Outputs

- 2x latching solenoids (6 VDC)
- 1x digital (dry contact or pulse)

Logger & data storage

- Configurable logging interval
- Memory: 8 GB Micro-SD
- Interface to **Link2Valves™** for remote data access and configuration (optional) or to a custom server (optional) communication

User Interface

- WiFi 802.11n/ac (auto-generated) for local configuration with smartphone, tablet or PC
- **CLA-VAL Link2Valves™** for remote configuration (if connected)

Data Communication (option) :

- 4G (LTE-M1, NB-IoT) and 2G (GPRS)
- Micro SIM card (accessible)**
- Extendable antenna with flexible cable

Embedded Intelligence :



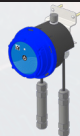
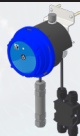


- Option: **ValveFlow™** valve flowrate computation (requires CLA-VAL sensors)
- Other options : contact CLA-VAL

Housing & General


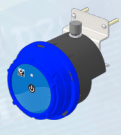
- Dimensions: Ø 132 mm x L 130 mm (no antenna, no bracket)
- Easy opening system without screws or tools
- Material: PC / ABS plastic UV resistant
- Protection: IP68 (2 m, 1 month)
- Operating Temperature: -10°C to 70°C
- Storage Temperature: -20°C to 80°C

PRODUCT CONFIGURATION

Base Models

		OUTPUTS	
		1 x Latching Solenoid (6 VDC)	2 x Latching Solenoid (6 VDC) 1 x Digital
INPUTS	No Inputs	 MEXE-D35-M0A	 MEXE-D35-M0C
	1 Input	 MEXE-D35-M1A	 MEXE-D35-M1C
	3 Inputs	 MEXE-D35-M3A	 MEXE-D35-M3C

All Inputs and Outputs activated (6 Inputs and 4 Outputs)

With IP68 Junction Box	Free Wires
 MEXE-D35-M6S	 MEXE-D35-MZZ

Accessories & Options

- **MEX520.931S070701-IP6803**
Ratiometric pressure sensor 0-16 bar IP68 3m
- **IALIFT35**
e-Lift-35 valve position transmitter
- **MEX-AN4G-02**
4G/2G compatible antenna
- **CWCOM-EUR-4G**
SIM card and data communication package (Europe)
- **MEX-PIL-032**
133 Ah external high-capacity battery
- **300999**
Valve-mount bracket

* Battery life valid for one communication a day with an optimal network connection (>80dBm)

**SIM card and data communication package sold separately or provided by the user



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WATERWORKS

From the reservoir to the customer tap, the CLA-VAL Company has developed more than 3,500 Automatic Control Valve models.

Accurately controlling pressure, tank level and flows within water networks is the result of more than 80 years of unparalleled expertise.

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