

# EQUILO SMART PRV CONTROLLER

## OPTIMIZE PRESSURE

The EQUILO system, based on ACOMO-AVK Series 879 automatic control valves integrated with the VIDi Smart PRV Controller, provides advanced, flexible, and precise pressure management through bidirectional communication with VIDi Cloud.

### Improved water infrastructure efficiency and reduced losses

Advanced pressure management relies on continuous monitoring of pressure and flow values across the water network - both locally at control points and remotely for centralized network supervision. This is achieved through a next-generation valve equipped with a low-power motorized pilot (Series 879 PRV), an IoT controller (VIDi Smart PRV Controller), and a cloud-based platform (VIDi Cloud).

The controller detects and transmits upstream and downstream pressure values, as well as flow rate data (when a flow meter is installed), to the cloud platform, where the information is processed for precise and dynamic pressure control. The result is an optimized distribution network with minimized losses, extended asset life, and enhanced operational efficiency.

A system that takes full control of network pressure, actively adapting to water demand. It reduces NRW and protects infrastructure from costly failures. Natively integrated into AVK Smart Water solutions, EQUILO goes beyond monitoring - it acts.

EQUILO allows pressure setpoints to be configured based on time, flow rate, or a flexible combination of both.



The resulting benefits include lower consumption and leakage levels, improved network stability, and minimizing service interruptions.



The EQUILO system consists of:

- **Automatic diaphragm control valve series 879** mod. 0X99E2 with 2-way motorized pressure reducing pilot in AISI316 (protection class IP68).
- Next-generation ultra-low-power **electronic controller** with integrated communication.
- No. 2 integrated electronic **pressure sensors** with IP68 connectors.
- Plug&PLAY **battery pack** IP68.
- **“VIDI” CLOUD platform** with related data connection APIs.
- NB-IoT **DATA Subscription**.

### Features

-  Battery operated device.
-  Connected to VIDi Cloud with two-way communication.
-  Pressure regulation is carried out by a low power actuated pilot.
-  Designed for AVK/ACMO PRV valves; suitable for retrofitting applications.
-  3rd party system integration using standard API
-  Need-to-have solution for NRW reduction.



### The reliable choice with 10-year warranty

AVK diaphragm control valves series 879 are designed according to EN 1074-5, to ensure network stability, precise regulation, easy maintenance, and long service life. They are available from DN50 to DN600, PN10-16, in both reduced bore and full bore versions, with standard plug or anti-cavitation baskets and V-Port options.

### High-quality materials

The body and bonnet are made of ductile iron GJS-500-7, with GSK-approved FBE epoxy coating. The plug has a parabolic profile for precise control and stable operation at low flow rates. The diaphragm is manufactured by AVK GUMMI and made of EPDM rubber, approved for drinking water and reinforced with polyamide. The internal trim, bolts, pipes, and fittings of the hydraulic circuit, are made of stainless steel. All parts are certified for drinking water use, with approvals according to D.M. 174, WRAS, ACS, and DVGW.



### Integrated motorized pilot on the valve

The highly sensitive downstream pressure reduction pilot is fully coupled with a latest-generation multi-turn electric micro actuator powered by 12V DC. The actuator's speed allows for axial movement of 6 mm/sec, ensuring perfect pressure control, reducing both the possibility of transients and the number of valve operations (drastically reducing maintenance). The actuator also features an integrated manual emergency override.



### Smart PRV Controller: local control, remote communication

- Control logic
- Remote communication
- Connectivity NB-IoT/LTE-M (global multiband).
- Local settings through mobile APP BLE
- Low power actuator interface
- Pressure meter interface
- Flow meter interface
- Optional external antenna
- Single box IP68

### Battery box: local energy

- Standard configuration: 5 x Size D 19Ah replaceable lithium batteries
- Extended configuration: 9 x Size D 19Ah replaceable lithium batteries
- Battery lifetime: up to 6 years (depending on operating mode)
- Plug-and-Play
- Easy to refill with fresh batteries
- Single box IP68



### PRV setting via VIDi Cloud

Flexible pressure regulation strategies:

- Time-based
- Flow-based
- Time-based and flow-based

