

**PLC controlled hydraulic control valve**

AVK PLC controlled hydraulic control valves for pressure and flow applications automatically regulate pressure or flow according to input from pressure sensors and flow meters. The control valves use the energy from the pressurised water to change the valve position, and therefore they do not need an actuator for regulation. This ensures low power consumption.

*Time-based pressure management:*

Time-based pressure management adjusts the outlet pressure based on an expected flow profile and predefined set points for time and pressure. Time-based pressure management allows for a constant pressure in a predefined geographical area far from the valve, because the outlet pressure takes pressure loss calculated from the flow curve into account. This method maintains a stable, low pressure at the consumers in the area, and thereby it reduces the average pressure significantly resulting in huge energy and water savings.

*Flow-based pressure management:*

Flow-based pressure management uses the signal from a flow meter to adjust the outlet pressure of the control valve according to the actual consumption. Flow-based pressure management allows for a constant pressure within a predefined geographical area far from the valve, because the outlet pressure set point takes the pressure loss calculated from the actual flow curve into account. This method maintains a low, stable pressure at the consumers in the area and thereby reduces the average pressure significantly resulting in huge energy and water savings. Such regulation takes the changes in consumption that falls outside the normal range into account, such as holiday periods, water consumption via fire hydrants and other abnormal consumption patterns.

The PLC is pre-programmed for various flow and pressure applications as well as time- and flow-based pressure management.

**Control valve DN50-600:**

Design according to EN 1074 – 5, face-to-face dimension according to EN 558 Table 2 Basic Series 1, standard flange drilling to EN1092-2 PN10/16.

Body and bonnet of ductile iron, all non-coated internals made of stainless steel AISI316.

WRAS approved materials, GSK approved fusion bonded epoxy coating.



Expect... **AVR**