



# AVK Smart Water Trials Commence

Kielder Water is the largest artificial lake in the United Kingdom by capacity. Its principal role is to underpin the Kielder Transfer System where water is taken from the River Tyne and transferred to the Rivers Derwent, Wear and Tees.

The nearby Pumping Station, the largest in the UK when it was built in 1979, is the facility that transfers the water via a tunnel from the Tyne to the other rivers. The water arrives at the pumping station at 19 bar, the same pressure you would experience at a water depth of 195m. The first step is to reduce the pressure and this starts with an AVK Series 872 needle valve (DN200, PN25) which reduces the pressure from 19 bar to 10 bar.

### **Digital Pressure Management**

The Series 872 needle valve has recently been fitted with an AVK Smart Water Pressure Management Device (PMD). AVK believes it is the first device of its type to be installed on the UK water network.

## **Local or Remote Control**

The AVK Smart Water PMD can be controlled locally or remotely. In the case of the pumping station, the PMD is initially being managed locally with the plan being to move towards remote communication via ethernet Modbus, a standard communication protocol for connecting industrial devices.

### **Real Time Monitoring**

The challenging performance metrics imposed on water companies by PR19, particularly with regards to leakage, resilience and customer service, have increased the focus on the benefits of holistic approaches to network and systems management. It is envisaged that smart devices located across the network sending and receiving data and instructions via the Internet of Things (IoT) will enable water companies to respond to system events in real time.

## **Smart Solutions**

The AVK Smart Water PMD is just one of a portfolio of smart water network products being launched by AVK during 2020. It places AVK Smart Water in the vanguard of companies developing solutions for water companies in this frontier technology.





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