Application Note

Monitoring of Chlorine Residuals in Drinking Water Distribution

Objective
- Process monitoring and regulatory compliance

Parameters
- Total chlorine

Integrated system consisting of
- Drinking water panel
- 1x CL17sc Ultra Low Range Chlorine Analyser

SC4500 and CL17sc

Problem

A drinking water production site in The Netherlands distributes finished water to booster stations in several city areas. Although the Dutch drinking water production aims to use no oxidants for disinfection, in some occasions a low level (between 10 and 20 ppb) of chlorine is injected into some distribution pipes. The aim is to avoid growth of biofilm, which seemed to be an effective method and thereby reducing health and compliance risks as well.

The chlorine residuals were previously monitored by an amperometric sensor technology and the plant operation faced accuracy issues and unreliable results.

Solution

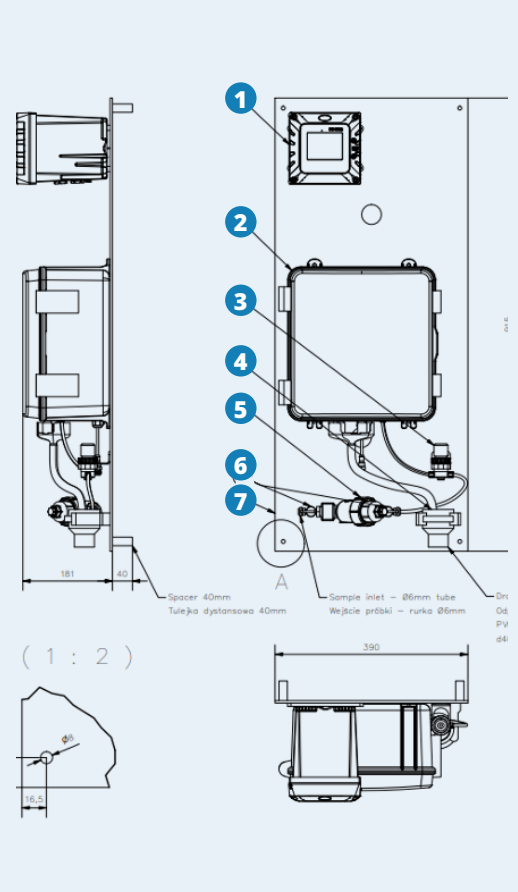
The Hach® Drinking Water panels are easy to operate plug-and-play solutions. The panels support the control of many different parameters which are important for drinking water. A chlorine monitoring panel was installed at the finished water sample line of the drinking water plant.

The CL17sc Ultra Low Range Chlorine Analyser gives direct total chlorine results, eliminating the need for ORP or amperometric measurement. The CL17sc Ultra Low Range Chlorine Analyser uses colorimetric DPD Standard Method 4500-Cl G and consistently maintains accuracy without loss of sensitivity in changing conditions and ultra-low levels.

Benefits

- The design of the panel guarantees trouble-free measurements under optimised conditions.
- Inlet and outlet control with a fixed sample flow secure the quality of the measuring values.
- Reliable and precise measurements of chlorine presence and its absence at low levels.

Details



1. SC4500 controller
2. CL17sc Ultra Low Range Chlorine Analyser
3. Pressure regulator
4. Drain connection
5. Mesh filter
6. Ball valve
7. Mounting plate