The Importance of Temperature and Pressure Monitoring in Water Management

Ultrasonic meters have significantly advanced the water metering industry, eliminating moving parts and delivering consistent accuracy over the life of the meter. But the industry is witnessing another noteworthy development, with the integration of water temperature and pressure sensors.

These new capabilities will give water utilities new insights into their system, providing them with more data to make better informed choices about protecting their system assets. This new temperature and pressure data will also be crucial to utilities' helping their customers by improving customer service and managing water quality.

IMPROVING QUALITY OF SERVICE

Having the ability to sense fluctuations in pressure through the water delivery system offers new insight into a utility's operations. Data on water pressure provides the information a utility needs to properly adjust pump output, avoid backflow, and properly allocate resources to resolve serious pressure anomalies. It will also supply measurements that help a utility address customer concern of low flow during peak usage hours or at different points of elevation throughout the coverage area, without having to send a truck to assess the situation.

Information is key, and having a detailed assessment of the pressure trends in the system can allow a utility to build more accurate models and examine the effects of new developments and infrastructure.

Frequent data ensures timely information to quickly detect and resolve fluctuations in flow rate, temperature, and pressure.

MAINTAINING HIGH WATER QUALITY

Ensuring consumers have safe drinking water is a major goal of any water utility. Access to accurate temperature sensing through an entire system is crucial to assessing the quality of the water in the pipes.
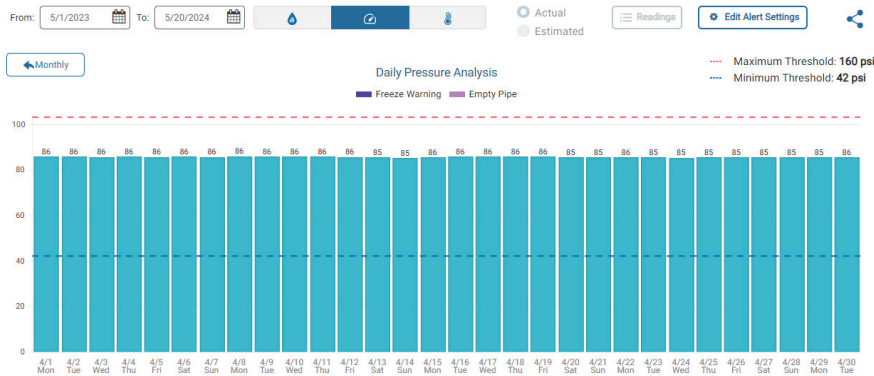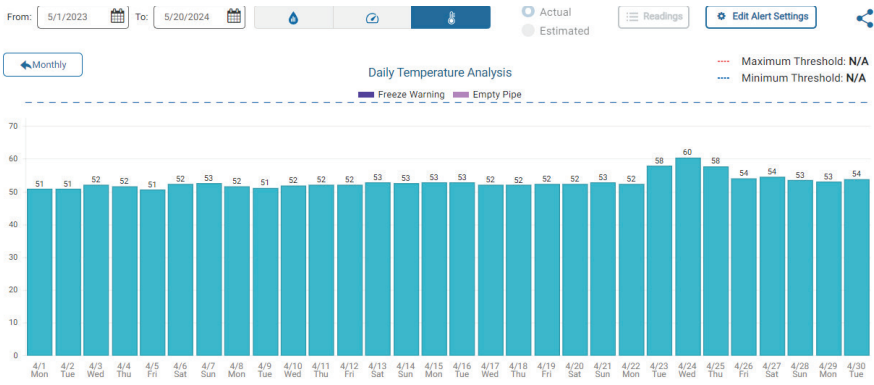
Temperature and pressure data as presented in Neptune® 360™

Water temperature outside the ideal range may cause an imbalance in the chemical properties of the water in a utility's system. If the water is too warm, it could create a breeding ground for microorganisms or algae blooms, creating dangerous drinking water conditions for end users. Knowing where these high temperature areas are located allow utilities to quickly and accurately identify where they need to flush the system.

PROTECTING THE INTEGRITY OF SYSTEM ASSETS

Being able to actively monitor and receive notification of extreme high or low temperature or pressure prevents system damage and helps conserve precious water. With access to software that helps water utilities manage their metering data combined with sensors within the system, a utility can determine when and where a leak or pipe burst is happening due to high pressure or freezing temperatures.

This also helps utilities be more proactive in their maintenance by identifying failing pressure-reducing valves before they become a major issue, instead of having to react in the face of a valve failure.

THE RIGHT METERING SOLUTION

Water utilities strive to be good stewards of our natural resources and provide their customers with safe and reliable drinking water. Having water temperature and pressure information easily accessible will help utilities make more informed decisions about their water system, identify when problems might arise, and better serve their customers.

Neptune's MACH 10® is now available with temperature sensing capabilities, and optionally with pressure. We are proud to build on the success of the ultrasonic metering solution from Neptune® by providing utilities with the necessary data to make better decisions in the management of their water system.

Learn more about the new MACH 10 at neptunetg.com/mach10.

Neptune® MACH 10® with temperature and pressure capabilities

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