

PROCESS INSTRUMENTATION Water authority chooses Siemens pressure transmitters for accuracy, reliability and ease of use usa.siemens.com/pressure

Background

A county water authority in the Northeast U.S. supplies over 40 million gallons per day to its 340,000 residential customers. The water authority buys water wholesale from a number of different supply connections.





This customer has a large distribution network that consists of 1,773 miles of water main with 47 storage facilities and 36 pumping facilities. Within that distribution system, they monitor flow and pressure at over 300 locations. These locations are mostly connected back to the SCADA system via wireless telemetry.

Challenge

The water authority uses Venturi primary flow elements and a DP pressure transmitter for their flow measurement in the large distribution lines. Most of these locations are remote and communicate to RTUs (Remote Terminal Units). The information is sent wirelessly to the main SCADA system for billing purposes. The previous supplier only offered a transmitter that could be set up via a Hart communicator or with a software program.

This customer also monitors over 300 points for line pressure throughout the distribution network. They were using a competitor's gauge pressure transmitter for the measurements. Due to the remote nature of the application and the potential for lightning damage, it was quite costly to replace these units on a regular basis due to storm damage.

Solution

The local representative provided the customer with the SITRANS P320 pressure transmitter for use with the Venturi elements to measure flow on their distribution lines. In addition to the reliability and accuracy, the customer was pleased with the fact that the P320 transmitters could be quickly and easily calibrated and configured using the on-board push-buttons and advanced display.

For the 300 points of line pressure, the customer chose the Siemens P200 gauge pressure transmitter because of its accuracy, compact size and lower cost.

The customer has now standardized on Siemens pressure transmitter portfolio for these applications.

Benefits

Cost savings: The P200 pressure transmitters used for the line pressure were much less expensive to purchase than the competitive units previous being used. Any needed replacement costs have dropped.

The cost in time and manpower to install and calibrate the SITRANS P320 pressure transmitters being used with the Venturi flow elements has been reduced with the easy to use push-button option.

Flexibility and ease of use: Calibration and configuration options on the P320 transmitters make set up easier. The pressure range, flow output and flow-rate scaling are all editable via the local user interface. Diagnostic capabilities, with a text-driven display make trouble shooting simple.

Reliability: Siemens confidence in the transmitter's reliability is evident by the SITRANS P320 standard factory warranty and the low cost extended warranty options.

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