



Local service and support saves time and money for municipal contractor and reduces downtime for customer

Situation

A general contractor specializing in municipal water and wastewater projects purchases magnetic flowmeters for various applications throughout many treatment facilities.

At a particular water treatment plant that provides drinking water for distribution to a large area of customers, the contractor had installed several SITRANS FM MAG5100W flowmeters, including four 36-inch flow tubes and two 8-inch flow tubes. The magmeters are used for measuring the flow of drinking water from the main plant to a regional water authority. The flowmeters provide a 4-20mA output signal to their SCADA system for totalization and also to indicate the need for chemical dosing to maintain quality.

Challenge

The contractor had been using competitive flowmeters but had changed to the Siemens magmeters as their preferred choice for ease of use and reliability. While they were installing the new Siemens flowmeters, they noticed that the customer's site drawings showed cathodic protection on the piping

where the magmeters were to be installed. Unfortunately, isolation of the magmeters had not been taken into account during the design and drawing preparation phase. Isolation of the magmeters was required to prevent the protective electric current from affecting the flowmeter performance.

Solution

To prevent operating or safety problems, the local Siemens representative consulted with Siemens Technical Support and then purchased the necessary components to provide isolation of the magmeters from the electrified metal pipes, including NEMA 4X stainless steel enclosures, isolation transformers, fuses, fuse holders, and capacitors. The contractor provided the labor to install the provided components, and the flowmeters were then successfully put into service. The addition of the isolation transformers and capacitors provided isolation of the flowmeter's electronic signals from being affected by the cathodic protection energy, and ensures the proper operation of the electromagnetic flowmeter.

The electrical contractor on the job was not only impressed with the Siemens transmitter package over the previously used flowmeters, but was grateful for the assistance of the local Siemens representative in facilitating the installation correction to get it done right.

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Benefits

Cost savings:

- The local representative saved the contractor time and money by recognizing the need for the MAGFLO flowmeter to be isolated from the piping protection before startup, which also saved the customer downtime.
- Built-in ground electrodes inside the sensor tube eliminate the need for grounding straps on steel pipes and grounding rings on plastic pipes.
- One flowmeter designed for all your water and wastewater applications means fewer stocked parts required in inventory.

Minimal maintenance requirements:

- No moving parts ensure long-term performance of the sensor tube
- The sensor is designed to withstand burial and constant flooding applications when the Submersible Kit is installed, so the customer can rest assured they will get a long life span from the flowmeter system.
- Local service and support: Siemens representatives across the country provide the customer with local service and support when and where they need it. Coupled with 24/7 Siemens Technical Support service, the local representatives have the right answers quickly.

About the SITRANS FM MAG5100W flowmeter

The SITRANS FM MAG5100 W flowmeter, with high durability liners and electrodes, is a cost-effective solution for all water applications including ground water, drinking water, wastewater, sewage, and sludge applications. Due to its superior design, increased rate of flow accuracy is optimized, making it especially useful for leak detection.

Key features

- NBR Hard Rubber liner ensures consistent accuracy
- Highly resistant to a wide range of chemicals used in treatment plants
- Sensitive low-flow measurement for accurate totalization and leak detection
- Drinking water approvals
- Complies with most international standards and approvals



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