Installation savings with Micro Motion 2-Wire Coriolis Flowmeter

**BENEFITS**

- Saved $1500 in electrical conduit and cabling
- Saved 8 hours of installation labor, valued at $600
- Completed mechanical and signal wiring in under one hour

**APPLICATION**

A major manufacturer of silicon-based products and specialty quartz used a wide variety of flow technologies and typically chose Coriolis for all critical mass flows and density/concentration measurements. For monitoring and purging applications, lower installed cost technologies such as turbine, PD and vortex meters were typically chosen. In this case, the customer used an older dP meter to measure and control the flow rate of nitrogen gas fed to purge a reactor vessel.

**CHALLENGE**

During a typical reactor campaign, the flow rate of purge gas would vary from 8-100 scfm. At the lower flow rates, the dP meter was beyond its turn down capability. As a result, control of the purge rate was impossible for this continuous process. While the manufacturer preferred the Coriolis meter option, the power wiring installation costs (25% of the total installed cost) were difficult to justify. Power wiring was estimated at close to 25% of the total installed cost.

**SOLUTION**

Upon hearing of the existence of a 2-wire, loop powered Coriolis meter, the customer was keenly interested in being a beta site. A Micro Motion® ELITE® meter (model CMF050) was sized for the application and supplied with a model 2200S transmitter. The meter used the existing signal wiring from the dP meter. The customer saved $1500 in wiring costs and eight labor hours, and the transmitter was installed in less than one hour. In addition, an electrician was not required for this installation, further reducing complexity and cost.

For more information:
www.EmersonProcess.com/solutions/chemical
www.micromotion.com

Replacement dP meter in reactor purge gas application - installed in less than 1 hour!