

Isolate and convert the signal from a positive displacement gas meter

APPLICATION A171

Type of Company: [Natural Gas Supplier Distribution Company](#)

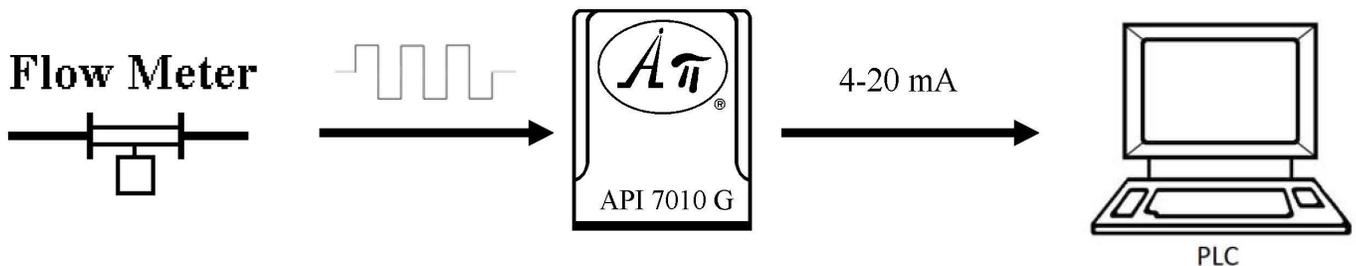
Location: [Ohio](#)

Local distribution companies typically transport natural gas from pipeline delivery points to households and businesses through thousands of miles of distribution pipe. The delivery point where the natural gas is transferred from a transmission pipeline to the local gas utility is often termed the 'citygate', and is an important market center for the pricing of natural gas in large urban areas. Typically, utilities take ownership of the natural gas at the citygate, and deliver it to each individual customer's meter. Natural gas companies rely on the durability and flexibility of these meters and instruments for the custody transfer of natural gas in residential, commercial, and industrial applications around the globe.



The Engineering Issue

- The customer offers a rotary type positive displacement type meter designed to measure the volume of gases and gas mixtures with a very high degree of accuracy. This "Roots" meter has a pulse output for cubic feet of gas flow but their customer requires a unit which will provide an isolated 4-20 mA signal ranged for the "application specific" rate of gas flow as the input for their PLC.



The engineer used an API 7010 G. The API 7010 G is a factory-calibrated unit that accepts the pulsed output from the gas meter and converts it to a range specific 4-20 mA signal for the end user's PLC. The unit also provides full 3-way isolation so the end result is more accurate monitoring of the gas flow.

Problem. Solved.