
Propane Presents Technology Series featuring Cavagna's Ultrasonic Gas Meter Frequently Asked Questions

1. Is there a true propane meter reading for community systems vs. tank monitoring?

The Cavagna smart meter is designed to measure the amount of gas going into a single home or application. With volumetric flows of 500,000 BTUs at 11 inches water column inlet, or 1,200,000 BTUs with a 2Psi inlet. It can be installed as part of a community system to measure the gas for each of the multiple houses that are connected to the master tank, or it can be installed in a one-tank, one-house scenario to measure and bill their usage monthly. In the community system scenario, you would still need to calculate the amount of gas in the tank at the start of the metered timeframe, and then you could subtract the total measured volume from the meters connected to that tank to obtain the amount of gas that remains in the master tank. This calculation can likely be completed by your back-office system if it is properly set up. So while the smart meter is not a "tank monitor" it can help you know what the level of gas in the tank. And because you can have the meters report usage without sending a service tech to read them, you can get that information more than once a month and stay ahead of the delivery cycle.

2. How often does it need to be calibrated? Can we do that ourselves in the field without disconnecting it? California requires an altitude correction with metered gas. Does your device have this capability? Does the meter have to be calibrated for various operating pressures, or does one meter work for all pressure conditions? Does the meter contain a pressure sensor to calculate volume at a reportable pressure?

The smart meter is not a diaphragm meter but an ultrasonic measuring device. A smart gas meter measures the volume of the gas consumed in a more precise way. This technology takes out the guesswork and enables you to know exactly how much gas has been consumed and if the gas is flowing properly. With the Ultrasonic Smart Meter, you see when gas is being used instead of just knowing that it was used. Because it does not have the moving parts of a traditional meter, and it is not operating off of pressure differentials, it doesn't require field calibration or adjustment for varying conditions such as altitude, pressure, age, wear and tear, or other issues that occur with our traditional meters.

- 3. How much are they? Monitoring fees? Do you work out bulk data rates with multiple carriers for meters data, or are we left to our own programs? What is the projected price per unit in the U.S.? Will Cavagna provide the monthly data set to integrate into back-office software? How much will a residential meter cost? How much is the monthly fee?**

Cavagna's goal is to release the meter to the U.S. market around the cost of a current mechanical meter. You should be able to operate and install the smart meter for less than the cost of a mechanical meter and a tank monitor and you eliminate the need for manual monthly meter readings. Data plans and communication costs cannot be determined on a blanket basis because each market has different communications options and coverage basis for the various carriers and options. The more often you have the meters communicate, the more data that will be used, and that will impact your choice. Final pricing will be managed by and communicated to you by your distributor. Integration with your back-office system is also possible, but cost of creating that API or other integration will be determined by your software supplier.