

Testing Gas Regulators with the XP2i Digital Pressure Gauge

One of the essential components of the natural gas system is the pressure regulator. A pressure regulator takes an input fluid or gas and reduces it to the desired value for the output. When used in the natural gas system, the regulator will reduce the gas pressure for a variety of reasons.

At gate stations, gas regulators reduce the line pressure from transmission levels (200 to 3000 psi) to distribution levels (0.25 to 900 psi). Once the gas reaches a home or business,



it will go through another regulator to reduce the pressure in service lines, which typically flow between 60 psi and 0.25 psi. Finally, the gas reaches a customer's meter, where it may need to pass through another regulator to reduce its pressure to under 0.25 psi.

Assuring that these regulators are working correctly is vital, and that's where the Crystal Engineering XP2i from AMETEK STC can help. Before installing a regulator, the XP2i digi-

tal pressure gauge measures the input pressure to assure that line pressure is as expected. It then measures the output pressure to verify that the regulator is working correctly. Following installation, routine maintenance requires that both input and output pressures are measured and possibly adjusted periodically.

Because regulators work at different pressures depending on where in the natural gas system they are, finding a versatile pressure gauge is critical. The Crystal XP2i is rated as a percent of reading so that it can be used accurately anywhere within its range. This means that gas companies can use the same gauge for multiple applications, rather than having one gauge tailored to a specific regulator. This versatility saves companies money on their initial investment as well as annual maintenance and calibration costs.

In addition to the percent of reading accuracy, the XP2i is an easy-to-use, rugged, digital gauge that has been trusted by gas companies around the world for the precise and reliable measurements they provide. The gauges are designed for the rough, in-the-field environments in which many pipes are located. They are also temperature compensated, so the accuracy of the gauges will not be degraded if it's used between -10 to 50°C (14 to 122°F).

For customers looking to record the data collected from their testing, the XP2i with optional DataLoggerXP upgrade records up to 32,000 data points (as fast as one reading per second). Free software downloads the information to a spreadsheet for easy storage and accessibility.