

## MONITORING OF SEWAGE GAS

### Task

Anaerobic fermentation produces gases containing methane, which are combustible (sewage gases). These are brought together from multiple digesters where different processes run. This gas is used as an energy source to e.g. power gas engines. Before its feed to the engine, the gas must be monitored for a minimum methane content; natural gas or liquefied petroleum gas will be added as necessary.

### Solution

UNION Instruments offers an optimally equipped version of its modular INCA gas analyzer as a solution for this. This determines the content of methane, carbon dioxide, hydrogen sulfide, and oxygen. The measured values serve as a control variable for the blending control. INCA uses a special measuring technique to measure over broad spectral ranges at very high accuracy. The sample gas preparation unit is integrated in the device and cools and dries the gas. The optional sample gas switching unit is expandable to serve up to 10 measuring points and is able to draw in sample gas from up to several hundred meters away.



### User Benefit

The composition of the combustion gas influences the start characteristics, efficiency, and knock resistance of gas-powered engines. The use of INCA assures optimal operating conditions for the engine and prevents problems that can lead to destruction of the engine and significant subsequent financial consequences, in particular. The concentration and quantity of the gases from the digesters provides information about the quality of the process.

