

Digester Gas Flow



In the anaerobic decomposition process, organic matter is transformed into stable solids and energy-rich gases. The main gases are methane (60%) and carbon dioxide (40%). Among them, methane is a high-value combustible hydrocarbon fuel that can be sold to the local industrial market and used as fuel for heat exchangers, blower engines or other systems in factories.

Challenges

Safe and reliable flow measurement is the key to the collection, disposal or reuse of methane gas. Since methane is highly flammable, flow meters must pass safety-related certification to operate/use in these hazardous locations.

Products

- **MLT Magnetostrictive Level Transmitter**

MLT type magnetostrictive level transmitter is a kind of high-precision level transmitter, and it is also mounted as an external binding transmitter on the local level gauge. The product can be used for level and interface measurement. Through the magnetostrictive wire, the core part of the sensor, the small changes in magnetic field vectors are transformed into mechanical waves. The sensor circuit transmits current pulses along the magnetostrictive wire inside the sensor tube, forming a ring magnetic field around the magnetostrictive wire. When a float is encountered, the magnetic field generated by the

permanent magnetic steel inside the float magnetizes the magnetostrictive wire axially. When the two magnetic fields are superimposed, the pulse is transmitted along the magnetostrictive wire to the top and bottom ends of the sensor respectively, and the float position is accurately confirmed by measuring the time difference between the starting and returning pulses.

Features

1. 4 buttons operating interface and LCD graphical display will provide more efficient configuration, calibration, measurement, fault display and other functions.
2. The product determines the displacement by measuring the time difference between the transmitted pulse and the return pulse, the accuracy is very high, and can reach 0.5% or better.
3. The product can measure level or interface. It is a real multi-parameter measurement.
4. The product can be easily combined with magnetic level gauge.