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MSR-Electronic - Worldwide methane gas monitoring in over 300 biogas plants

Worldwide cooperation with top 5 companies in the renewable energy sector.

The idea is as simple as it is ingenious: Mix the unloved liquid manure with corn silage, let bacteria work and use the methane gas produced to generate electricity and heat. Renewable energy sources are inexhaustible. In times of scarce energy resources and climate change, the focus is on new energy sources. Biogas has proven to be a very good alternative in natural energy production.



Continuous monitoring of the ambient air for explosible methane gas in zone 2.

When constructing biogas plants, one of the top 5 German companies in the renewable energy sector pays attention not only to modern process technology, but also to reliable methane gas monitoring in addition. During the fermentation process, gas leaks can occur at any time and cause catastrophic damage in the event of ignition. For the production of biogas, excrements of farm animals are mixed with plants. The

mixture is processed into a kind of liquid manure in the corresponding fermentation plant. Millions of bacteria now swarm in this mixture and slowly decompose it. This process causes methane gas to form.

For successful gas monitoring with specified SIL requirements, the stationary PolyXeta®2 gas detector from MSR-Electronic with the innovative exchangeable sensor is used.

The microprocessor-based gas sensor with output signal as well as alarm and fault relays (all SIL2 certified) monitors the ambient air for combustible gases and vapours by means of a catalytic pellistor sensor element. The 4–20 mA / RS-485 Modbus output signal makes the sensor suitable for connection to the PolyGard®2 gas controller series from MSR-Electronic as well as to other MSR controllers or automation devices. As an option, the PolyXeta®2 sensor is also available with LCD and relay output. Individual customer configuration, e.g. for alarm thresholds and relay assignments, is possible as well.

Re-calibration on site.

For PolyXeta®2 sensors from MSR-Electronic without LCD, calibration is performed via the handy calibration device STL06-PGX2 or the PC software PCE06-PGX2. Sensors with LCD have an integrated calibration routine that is started from the outside with a permanent magnet without opening the housing. For sensors with LCD, the background lighting changes from green to red in case of alarm or error. The exchangeable sensors thus enable simple and time-saving calibration on site.

**PolyXeta®2 – use in a variety of applications.**

The PolyXeta®2 sensor is used in industrial areas like oil/gas industry, biogas plants, petrochemical industry, power plants etc. in Ex-Zone 1/2. The PolyXeta®2 sensor is also suitable for commercial areas like gas transfer stations etc.

Further information on MSR products can be found [here](#) in the current online catalog or in the webshop: www.msr-24.com.

MSR-Electronic is a manufacturer of fixed gas warning systems with decades of experience in the field of building automation and gas measurement technology. The international company with headquarters in Germany has a wide range of methods for the detection of toxic and combustible gases. On this basis MSR-Electronic develops individual gas sensors, controllers and warning devices for many applications, such as parking garages, tunnels, petrochemical industry or shipping. The products meet more than the general standards and regulations and can therefore guarantee the safety of the plant. www.msr-electronic.de

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