

QUALVISTA BIOGAS MONITOR QBM-100

Real-time monitoring of biogas for siloxanes and other gas components

The Qualvista Biogas Monitor provides the biogas and biomethane industry an integrated continuous, cost-effective and robust method for siloxane, methane, carbon dioxide, hydrogen sulfide and oxygen measurements. The system enables the monitoring of siloxanes and other biogas components either on demand or by regular intervals as defined by the user. The real-time monitoring will help Qualvista customers to optimize their maintenance intervals for both purification systems and gas engines or turbines, as well as to verify the quality of biogas.

Modular structure allows you to analyze Si, CH₄, CO₂, H₂S and O₂ at multiple measuring points in one system.



Patented Qualvista NDIR technology

The Qualvista Biogas Monitor uses the NDIR method for siloxane level measurement. This is the most robust method for measuring absorption of the infrared light of the gas sample provided.

The patented innovations in the Qualvista Biogas Monitor make it the first monitor in the market which can be used for continuous measuring of siloxanes and other

gases without costly calibration or manual samples.

The gas flow goes through the equipment at 0.5l/minute, so continuous measurement is possible, which enables continuous monitoring. One measurement takes 10 to 40 minutes to complete, depending on the siloxane concentration. The system is sensitive and its detection limit is approx. 0.1 mgSi/m³ for

total silicon level. The unit can be followed remotely by using state-of-the-art communication technologies. Optionally, it can also be coupled to the local automation via analog signals and/or communication buses, like Ethernet or ProfiBus.

The monitor installation includes a temperature-stabilized cabinet for indoor and outdoor use.



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Cloud-based service platform

The Qualvista Biogas Monitoring system includes a cloud-based service platform for data storage, reporting and analytics. The reporting tool gives the user a comprehensive, customizable view of biogas measurement information, such as siloxane and other measured gas amounts on hourly, daily, weekly, or monthly basis. It can be used to verify quality of gas entering gas engines or turbines, used as traffic fuel or for injection to gas grid.

Siloxane information can be reported in any required unit(s), for example mgSi/m³, ppm or ppb. The online reporting information can be accessed anywhere with standard PC and mobile devices. The data can also be downloaded.

Fully automated system as a managed service

Qualvista Biogas Monitoring system is offered as a fully automated and managed service. It can be installed and used without customer expertise. Also, the operating costs of the system are very low as compared to alternative biogas monitoring solutions. The installation includes the Qualvista Monitor, indoor/outdoor analyzer cabinet and a cloud-based service platform.

Qualvista Biogas Monitor key benefits

Momentary and average levels of measured gas components are revealed continuously – occasional grab sampling no longer needed

Gas purification equipment maintenance intervals can be optimized

Multiple measurement points for verification of gas quality – siloxanes, CH₄, CO₂, H₂S, and O₂

24/7-365 unmanned fully automated measurements and system calibration

Cloud based visualization of results, accessible from anywhere, anytime

Field proven technology, robust, accurate and reliable system with low maintenance design



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