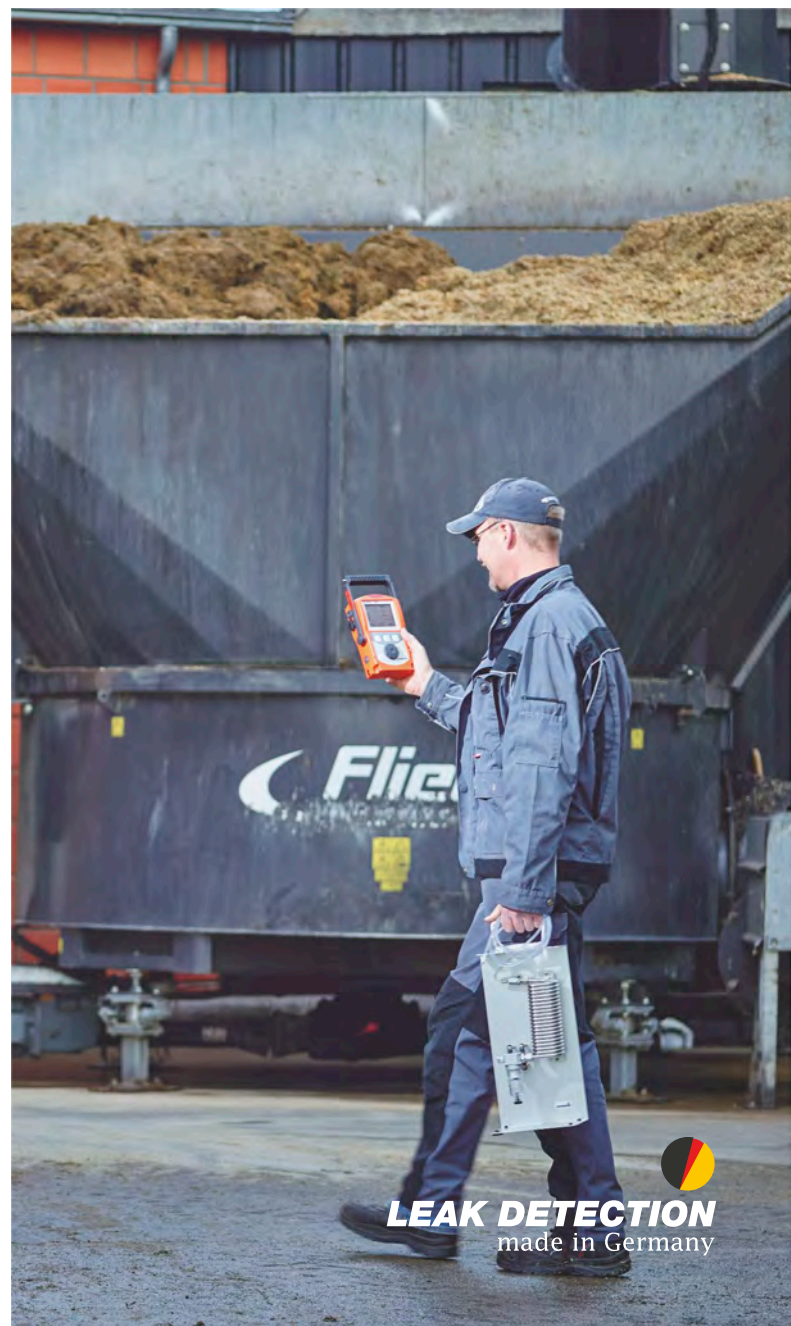


Multitec[®] BioControl System – BioControl 4 and 8

The combined measuring device
for professional process monitoring



BioControl 4 and 8: economical – versatile – reliable

The premium system for professional process optimisation

Multitec® BioControl is the professional system for continuously and automatically measuring and monitoring the volume and composition of gas. It is economical, versatile and reliable. Whether in **biogas plants, landfills, sewage treatment plants or composting plants** – the unique combination of a stationary unit and mobile gas measuring device enables comprehensive professional process control and optimisation.

The high-quality BioControl 4 or BioControl 8 base station offers extensive and varied measuring options. Developed specifically to meet the requirements of **medium-sized to large plants**, it stands for process and profit optimisation, maximum reliability and individual flexibility. This premium model is recommended for plant manufacturers with the highest technological demands.

The Multitec® BioControl system comprises the stationary fixed BioControl device and a mobile gas measuring device. Depending on individual requirements, the Multitec® 540 or Multitec® 545 is the most suitable mobile unit. **Up to four or even eight measurement locations** are available depending on the version (BioControl 4 or BioControl 8). This means that the operator can use any of the up to four or eight measurement locations as a fixed measuring instrument. Alternatively, the Multitec® 540 / Multitec® 545 can perform mobile measurements, e.g. directly at the fermenter, secondary fermenter or even remote units in the plant, and save the measurement values in the BioControl.

Operating principle

Depending on the product type (BioControl 4 / BioControl 8), the BioControl can automatically and precisely measure, analyse and continuously monitor gas composition and gas volume at up to eight measurement locations (e.g. fermenter, secondary fermenter, upstream of the motor, upstream/downstream of the desulphuriser). The system reliably saves data and provides complete documentation. When used in combination with ATEX-certified flow rate and temperature transmitters, the BioControl can **continuously calculate temperature and flow data** – even outdoors. The mobile Multitec® 540 measuring device can be used for any number of manual measurements at remote parts of the plant at irregular intervals. The data is recorded and processed automatically. When the Multitec® 540 / Multitec® 545 is replaced in the docking station, this data is displayed in a log and sent by LAN, RS485 or optionally by Profibus module. The alarm relay can be freely configured via the touchscreen.



Advantages of the Multitec® BioControl system

- **Large, state-of-the-art 7" colour touchscreen:** simple user-defined settings, language selection
- **Flexible configuration to individual requirements:** measurement locations/cycles, saving intervals, limits, alarm thresholds
- **User settings can be reproduced from the day of commissioning** (saved on USB stick)
- **Reliable measuring results** by way of self testing during operation
- **Sturdy and durable:** all relevant components resistant to aggressive gases
- **Autonomous and regular saving of all measurement values and settings** to USB stick; no data loss, no manual logging, complete documentation
- **Comprehensive servicing:** stationary unit virtually maintenance-free, rapid first-class support thanks to customer-friendly remote maintenance and diagnostics – anywhere in the world by internet, simple automatic calibration/adjustment by test gas




Multitec® 540 and Multitec® 545: independent measuring anywhere

The mobile Multitec® 540 and Multitec® 545 gas measuring devices can simultaneously measure the concentrations of up to five gases. This makes them ideal for the precise analysis and monitoring of gas mixtures that are produced during biological processes. Equipped with infrared sensors, they can reliably determine the methane and carbon dioxide concentrations without distortion from other gases. The large display shows the values simultaneously and clearly so that you can see everything at a glance. The mobile measuring devices can be fitted with optional electrochemical sensors to calculate oxygen, hydrogen sulphide and carbon monoxide concentrations. The measurement data saved in logs can be conveniently transferred to PC via the USB port. Sewerin provides the necessary software free of charge.



Advantages of the Multitec® 540 | Multitec® 545

- **Certified explosion protection:** TÜV 07 ATEX 553353 X  TG8 carrying bag; allows analysis of (raw) biogas produced in all areas of the plant
- **Easy-to-service design, minimal downtime, highly cost-effective:** quick and easy maintenance thanks to durable built-in sensors, mobile devices easy to send by post (maintenance by SEWERIN Maintenance Service available even through local utilities companies)
- **Extremely user-friendly** thanks to jog dial, intuitive menu navigation and large function keys
- **Selective infrared sensors** for distortion-free measurement of hydrocarbon and carbon dioxide concentrations
- **Durable electrochemical sensors** for measuring the concentrations of oxygen and toxic gases; Multitec® 545 extended H₂S measuring range 5,000 ppm, Multitec® 540 up to 2,000 ppm, device selected according to individual application
- **Economical and user-friendly power supply:** four replaceable AA-size rechargeable or disposable batteries
- **Long operating times:** minimum seven hours, rapid charging in four hours
- **Practical, steady bow-shaped handle for carrying and setting up:** easy to carry, lightweight measuring device (approx. 1,000 g)
- **Clear, semi-transparent 4.3" matrix display:** with practical backlight, excellent readability even in direct sunlight
- **Convenient data transfer** to computer via USB port

Advantages at a glance

- ✓ Professional, comprehensive and versatile measuring
- ✓ Several motors and desulphurisers can be monitored simultaneously by at least four measuring points
- ✓ Four analog outputs with customer-specific programming for process control (e.g. motor only starts up as of a certain methane concentration)
- ✓ Flowmeter for determining the exact volume of biogas produced in standard cubic metres (Nm³) and calculating the motor efficiency
- ✓ Save time and money whilst ensuring maximum safety by way of continuous automatic measurement
- ✓ Extremely user-friendly and individual configuration
- ✓ Process monitoring and optimisation (e.g. by substrate adjustment)
- ✓ Successfully improve gas quality and increase yield

The BioControl 4 / BioControl 8 and Multitec[®] 540 / 545 combination is a unique system. Not only does it provide precise information about the gas composition, it also accurately measures and evaluates the volume of gas produced. The efficiency of a biogas plant, landfill, sewage treatment or composting plant can be exactly calculated at any time. For example, when seasonal changes occur in the substrate, you can immediately see how these affect not only the gas quality, but also the volume of gas produced.

The high-quality device combination enables diverse, complex measurements with up to four to eight measurement locations and four 4 - 20 mA output signals. The flexible Multitec[®] 540 / Multitec[®] 545 device is a huge asset. Not only can it be removed from the base unit for servicing, it also allows independent, mobile measurements – simply unique!



Optional accessories

- SPE BioControl
- Bio IR test gas
- Mobile gas cooler
- Flow rate and temperature transmitter



Please contact us for a comprehensive quotation, including additional technical specifications and information on accessories.