EZ7253 Volatile Fatty Acids (VFA) Analyser, 1 stream, Modbus RS485

Product #: **EZ7253.99001C02**

NZD Price (Incl. GST): Contact Hach

Online, automatic monitoring of critical process parameters and process efficiency in anaerobic digesters

A new control alternative for anaerobic digestion

Due to the expensive or time-consuming character of most analysis methods for anaerobic processes, industrial digesters are usually not adequately monitored. Developed specifically for monitoring anaerobic digesters, the EZ7200 Series bring the possibility of implementing new control alternatives to typical operating problems in mid to large scale digesters.

Critical parameter monitoring, online and automatic

Anaerobic digesters require monitoring of a specific set of critical parameters in order to obtain optimal production efficiency, compliance and biogas yield. The primary parameter is volatile fatty acids (VFAs), representing the metabolic condition of the anaerobic digester and responding quickly to stress induced changes, combined with bicarbonate and alkalinity.

The EZ7200 Series are easy-to-operate online titrators using a unique and robust method for measuring the critical process parameters in one single run, enabling insight as well as full control over the anaerobic process:

- Direct titration with minimum volatilisation

- Continuous monitoring of the anaerobic process

- Enabling higher loading rate for maximum CH_4 production

- Prevention of digester failure due to VFA accumulation

- Easy implementation within a dynamic control strategy

- Easy integration into corporate networks

There are many additional options available. Please contact Hach for more details.

Specifications

Alarm:	1 x malfunctioning, 4 x user-configurable, max. 24 VDC/0.5 A, potential free contacts
Ambient Temperature:	10 - 30 °C ±4 °C deviation at 5 - 95% relative humidity (non-condensing)
Calibration:	Automatic; frequency freely programmable
Certifications:	CE compliant / UL certified
Cycle Time:	10 - 15 minutes

Digital outputs:	Modbus RS485
Dimensions (H x W x D):	690 mm x 465 mm x 330 mm
Drain:	Atmospheric pressure, vented, min. Ø 64 mm
Earth connection:	Dry and clean earth pole with low impedance (< 1 Ohm) using an earth cable of > 2.5 mm^2
Instrument air:	Dry and oil free according to ISA-S7.0.01-1996 quality standard for instrument air
Interferences:	Phosphates and similar dissociating ions and non-fatty acids which on acidification from undissociated acids may cause interference. Sulphide may deteriorate some types of pH electrodes. Fats, oil, proteins, surfactants and tar.
Lower Limit of Detection (LOD):	≤ 10 mg/L (range 10 - 500 mg/L VFAs)
Material:	Hinged part: Thermoform ABS, door: plexiglass
	Wall section: Galvanised steel, powder coated
Measurement method:	Acid-base titration
Number of sample streams:	1 stream
	Optional:
	1 to 8 streams
Output:	Modbus RS485
	Optional:
	Active 4 - 20 mA max. 500 Ohm load, 1 to 8 outputs
	RS232, Modbus TCP/IP
Parameter:	Volatile fatty acids (VFAs), bicarbonate, total alkalinity, partial alkalinity
Power:	110 - 240 VAC, 4 A, 50/60 Hz Max. power consumption: 150 VA
Precision:	Better than 3% full scale range for standard test solutions
Protection Class:	Analyser cabinet: IP55 / Panel PC: IP65
Płukanie:	With tap water
Range:	VFAs 500 - 10000 mg/L as acetate equivalent;
	Bicarbonate 0 - 100 meq/L or 10,000 mg/L as CaCO3;
	Alkalinity, total and Alkalinity, partial 0 - 100 meq/L or 10,000 mg/L as CaCO3
Reagent Requirements:	Keep between 10 - 30 °C
Sample Flow Rate:	100 - 300 mL/min
Sample Pressure:	By external overflow vessel
Sample Quality:	Maximum particle size 500 µm, < 0.1 g/L
	Most applications require the use of an EZ9130 sampling/filtration system.
Sample Temperature:	10 - 30 °C
Validation:	Automatic; frequency freely programmable
Warranty:	1 year
Weight:	25 kg