Multi-component Analyser
Biomethane

MGC 16

Flow computers | Measuring Systems | Remote Terminal Unit | **Analysis system**

The MGC 16 is a new generation analyser for the analysis of all types of gas compounds and installed in safe area (ATEX version zone 1 on request).

In its biomethane application, the MGC 16 analyses all the required components while limiting the gas consumption to carry out the measurements. Its embedded website allows user-friendly operation without software or specific license.

Very low gas consumption

Thanks to its innovative concept with no cold spots and the measurement of all the required component in a single analyser, the MGC 16 allows an exceptionally low gas consumption of 1-2 ml / min as well as a consumption of carrier gas from 2-4 ml / min.

Scalable configuration with low maintenance

The MGC 16 offers a modular global solution for scalable on-site configuration.
The MGC 16 allows maintenance at low cost (possible replacement of columns, TCD, injector ...).
The maintenance center of the analyser is based in France.

Technical data - Analyser Biomethane MGC 16

Model	MGC 16 Biomethane	
Applications	Biogas analysis, biomethane station, reverse station	
Functions	Measurement acquisition, calculation, alarm management, monitoring of Analog and logic input / output status, secure recording, PLC and supervisory communication, remote and wireless server	
Calculated values	Density, Zb, SCV, ICV, Relative Density, Wobbe index according to ISO6976: 2016, Dewpoint, unit conversions, averages	
Inputs/Outputs	1 DI, 2 AO, 1 AI, 2 RJ45, 1 RS485, USB, maintenance button Other I/O possible on request	
Display	Optional touch display HMI via embedded web server (unlicensed)	
Enclosure	Frame : 1 - 5 modules Dimensions : 47,5 cm (P) x 43,2 cm (L) x 44 cm (H) Weight < 20 kg	
Process gas connection	Fluid : 1/8 OD, et 1/16 OD Electrical: removable screw terminal blocks	
Component of Biomethane	Modules	Low limit of quantification
THT	THT	0.9 ppm
O2, N2, CO, H2	Tamis	50 ppm and 100 ppm for H2
CH4	RT-U	100 ppm
C2, C3, CO2	RT-U	10 ppm
C4+	RT-U	1-5 ppm
H2S-COS	RT-U	1.4 ppm
H2O	H2O	Less of 1 ppm
Communication	2 x Ethernet TCP/IP Modbus 1 RS485 dedicated to the communication with Modbus master (SM@RT U, others.)	
Pressure and sample gas consumption	0.5 to 1 relative bar. 5 ml per injection, ie 1-2 ml / min	
Carrier gas	He, argon (from 2-4 ml) of minimum quality 5.5. Recommended 6.0 for low grade compounds. Pressure 4 bar	
Number of stream	Up to 16 channels with MGC 16-controlled rotary valve (via USB port)	
Repeatability	< 0,1% RSD for retention times < 1% RSD on peak areas for concentrations > = 0.1% < 2,5% RSD on peak areas for concentrations <= 0.1%	
Linearity of the detector	10^6	
Memorizing	On RAM saved: min, max average of% gross and normalized + THT mg / Nm3, H2O mg / Nm3 and SCV	
Monthly registration	12 months	
Daily registration	30 days	
Event journal	500 events	
Hourly recording	7 days	
Analyzes	100 to 2000 analyzes on time files + 3 years of chromatograms	
Hourly and daily time averages	SCV, Wobbe index, Zb, relative density, gas composition	
Languages	French, English, on request for other languages	
Operating conditions Temperature	0 to 50°C	
Relative humidity	< 95% without condensation	
Programming in column temperature	Column temperature: up to 250 ° C T° programming: 5 °C/s max according to column Resolution : 0,1°C	
Power supply	Power supply 100-240 VAC, 50-60 Hz, 5 A	
Custody transfer approval	OIML R140 (in progress)	
Analysis time	75 seconds	

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