Multi-component Analyser

Natural gas

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 a safe area (ATEX version zone 1 on request).

In its natural gas 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 components 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 change of columns, TCD, injector ...).
The maintenance center of the analyser is based in France.

Technical data – Analyser natural gas MGC 16

Model	MGC 16 Natural gas + H2	
Applications	Pure gas, natural gas, biogas, biomethane, LNG and other fluids. Delivery station, pressure reduction station, production station, isolated post, biomethane 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-Q	100 ppm
C2, C3, CO2	RT-Q	10 ppm
C4, C5, C6, C7, C8	RT-Q	1-5 ppm
H2O	H2O	Less of 1 ppm
H2S-COS	RT-U	1.4 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 bar relative. 5 ml per injection soit 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 à 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 à 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 progess)	
Analysis time	Analysis up to nC6H14: 220 seconds Analysis up to nC8H18 : 330 seconds	

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