

EXPERTS IN GAS ANALYSIS

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EXHIBITIONS 2009

ARAB LAB - UAE

Dubai – 10 – 13 January 2009 http://www.arablab.com/

ANALYSE INDUSTRIELLE 2009 - FRANCE

Paris La Défense -3 – 5 February 2009 http://www.analyse-expo.com/

Jumping de Bordeaux - FRANCE

Bordeaux - 6 – 8 February 2009 http://www.bordeaux-expo.com/jumping/

GAS 2009 - NETHERLANDS

Rotterdam – 11 - 13 February 2009 http://www.gas2009.org/

MCERTS 2009 - UK

Bretby - 29 – 30 April 2009 http://www.mcerts.uk.com/

ACHEMA 2009 – ALLEMAGNE

Frankfort - 11 - 15 May 2009 http://www.achema.de/

WREC - THAILANDE

Bangkok – 20 – 23 May 2009 http://www.thai-exhibition.com/entech/

AWMA 2009 - USA

Detroit – MI - 16 – 19 June 2009 http://www.awma.org/ACE2009/

Congrès International de métrologie – FRANCE

Paris –22 – 25 June 2009 http://www.metrologie2009.com/

Le Bulletin

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CENTRAL CONTROL MODULE

The objective of the module is to do analysis at several measurement points:

- 1 Chromatotec analyzer *airTOXIC* on 2 channels
- ➤ 2 NOx analyzers on 12 channels

Chromatotec offers a multiplexer solution with 12 channels along with the software and data display system.

<u>The sequencing module</u> controls 2 multiplexers with 6 channels:

It is a programmable controller with 24 VDC.

The sampling line is linked directly to the corresponding NOx analyzer.

This allows for the monitoring of the 12 channels independently.

The 2 NOx analyzers could be replaced by other types of analyzers: H2S, mercaptans, THC, NH3, Cl2...etc A parallel connection for lines 1 and 7 is done in order to connect the *airTOXIC* analyzer.

<u>The data acquisition module</u> is also autonomous and saves all the data:

- The results of measurement of the 5 substances (Benzene, Toluene, Ethylbenzene, M and P xylenes, o-xylenes) from the 2 sampling lines from the *airTOXIC*
- The results of measurement of the 3 substances (NO, NO2, NOx) for the 12 sampling lines coming from the NOx analyzers.

The data are stocked on a daily ASCII file, time dated and usable thanks to excell ensuring traceability of the measurements.

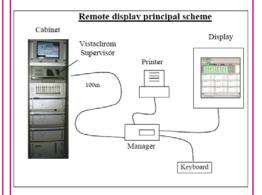
The data are available for further calculations and are also displayed in a specific window.

The software information is installed on a compact supervisor. The data exchange is done through RS485 with modbus RTU protocol.

Window with data display

REMOTE DISPLAY

Remote display of analytical results from online automated measurements.



Functions available:

- Display on screen in control room of up to 10 channels.
- Calculation of average :
- automated : every eight hours
- on demand : sliding average (e.g. since x hours or x days)
- print-out of the results on demand
- archiving of the data

Communication protocol MODBUS/JBUS (RS232/RS485)

Distance between computers: 100 meters



Customer care: from 9 am to 6 pm, we are at your disposal for service gas analyser/software/computer/ maintenance and calibration. To receive our news, send your email to info@chromatotec.com

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AUTOMATED DATA HANDLING

The gas chromatograph sends data information from various methods from 1 or several channels (multiplexer) to the computer.

Calculations are then done thanks to Group function or Math Module (Module Automation) program.



- ⇒ Group function creates a new name in the substance table such as TRS (Total reduced sulphur), THC (Total Hydrocarbons Content) or specific request (Total mercaptans) and calculates a new concentration result based on pre-assigned factors.
- ⇒ Math Module takes data in the Real Time Data Memory (RDTM) and applies calculation. The calculated data is then be used externally and returned to RDTM. Part of the RDTM is visualized in User Interface.



Example of applications are statistical calculation (average), alarms triggering (High or low), GC supervision, stability of calibration follow-up, data and event logging.

REMOTE CONTROL

This function allows for the remote control of an analyzer thanks to intermediate software such as PC anywhere or VNC.

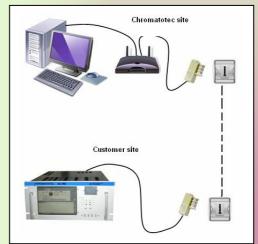
The items necessary are the following:

- modem on each end.
- direct analogue phone line direct with type SDA phone number or internal access network.

Once connected, the Chromatotec operator can have access to the Vistachrom software of the client's analyzer.

There is also the possibility to do a diagnostic on a problem

There is also the possibility to do a diagnostic on a problem encountered, guide the customer with a specific manipulation...etc.



Soon available: wireless module according to GPRS (General Pocket Radio Service) norm.

MODBUS

Modbus RTU Protocol is used to establish master-pupil communication between intelligent devices.

It is "de facto" a standard, truly open and the most widely used network protocol in the industrial manufacturing environment.

Chromatotec offers Modbus/Jbus as option. The supervisor model XXX015 (*Pupil*) measures parameters (e.g. concentration, peak area, retention time, status, method, calibration) and communicates these results to a remote terminal unit (*Master*) such as a data-logger. The information is sent via serial link such as RS-232 (Maximum 1.5 m), RS-485 (Maximum 1200 m) or by Ethernet.

The list of information available to be exchanged is called a mapping and can be viewed thanks to the Vistachrom software on the supervisor.

Reduce	Chromato-Sud Vistachrom driver		Bus / al Time Da		Driver version	Version 1.4.3 Access level Manufacture
Mapping	Setup & Log					
Slave 1	1					
Ini file n	same C:\VISTACHROM143\MJBU	JS_DRIVER\DRVMJBUS_	143_PGE_Mo:	:Bus INI		
Address	Label	Value	Type	Size	Source parameter	
107	IPM Result	0 PPM	Float	2	#4120505, RSH#412, 412-SPL	
109	TBM Result	0 PPM	Float	2	#4120505, RSH#412, 412-SPL	
111	NPM Result	0 PPM	Float	2	#4120505, RSH#412, 412-SPL	
113	MES Result	-1	Float	2	#4120505, RSH#412, 412-SPL	
115	SBM Result	0 PPM	Float	2	#4120505, RSH#412, 412-SPL	
117	THT Result	7.704 PPM	Float	2	#4120505, RSH#412, 412-SPL	
119	DMS STD Result	2.658 PPM	Float	2	#4120505, RSH#412, 412-SPL	
121	TIO Result	7.704 PPM	Float	2	#4120505, RSH#412, 412-SPL	
123	TOS Result	7.704 PPM	Float	2	#4120505, RSH#412, 412-SPL	
125	H2S Average	0	Float	2	AverageComputation.#4120505.Average.H2S	
127	TBM Average	0	Float	2	AverageComputation.#4120505.Average.TBM	
129	THT Average	6.907	Float	2	AverageComputation.#4120505.Average.THT	
131	DMS STD Average	2.772	Float	2	AverageComputation.#4120505.Average.DMS STD	
133	TIO Average	6.907	Float	2	AverageComputation.#4120505.Average.TIO	
135	TOS Average	6.907	Float	2	AverageComputation.#4120505	5.Average.TOS

Customer care: from 9 am to 6 pm, we are at your disposal for service gas analyser/software/computer/ maintenance and calibration. To receive our news, send your email to info@chromatotec.com

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