

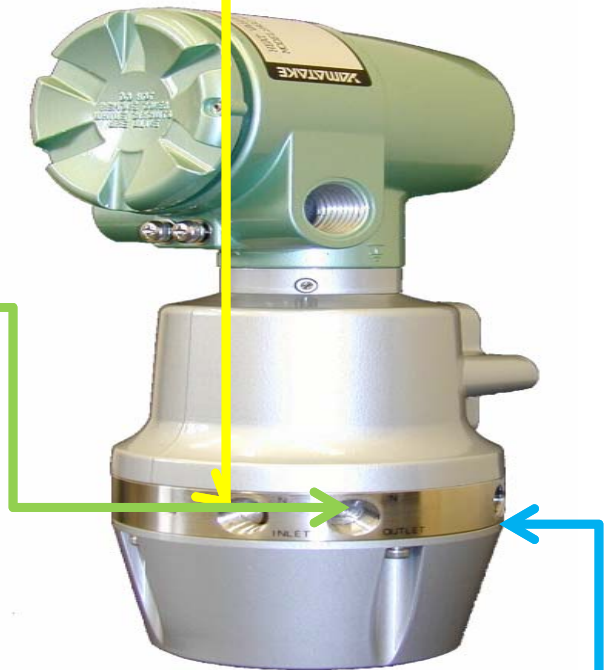
# CHROMATOGRAPH HGC

- ❑ Chromatography gaseous phase conforms to ISO 6974 part 4
- ❑ Specialized on analysis for natural gas
- Environment
  - Ambient Temperature :  $-10^{\circ}\text{C}$  à  $50^{\circ}\text{C}$
  - Relative humidity : 0-95 %
  - ATEX : II2GD EEx d IIC T6
- ❑ Cycle's Analysis : 5 minutes (system with double injection)
- ❑ Respectabilité of Analysis :  $\pm 0.05\%$  of SCV
- Accuracy : max permissive error on SCV 0.5% (Test LNE)
- Power supply : 24V, 4A



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- Gas analysed :
  - Pressure : 500 mbar to 4 bar (upstream of the flow meter)
  - Measured gas stream : 1
  - Flow : 50 ml/min (+/- 20 ml/min)
  - Manual or automatic calibration ( through PC).
- Gas carrier : Helium
  - Minimal purity 99,99 %
  - Pressure 4 bar +/-0.5 bar
  - Consumption about 25 ml/min.
- Gas to activate solenoid valve : Helium, Nitrogene, or Air
  - Minimal purity 99,99 %
  - Pressure 4 bar +/-0.5 bar
  - Consumption about 25 ml/min.
- Nota : Bottle B50 of Helium covers the consumption of gas carrier and activates the solenoid valve during 6 months.



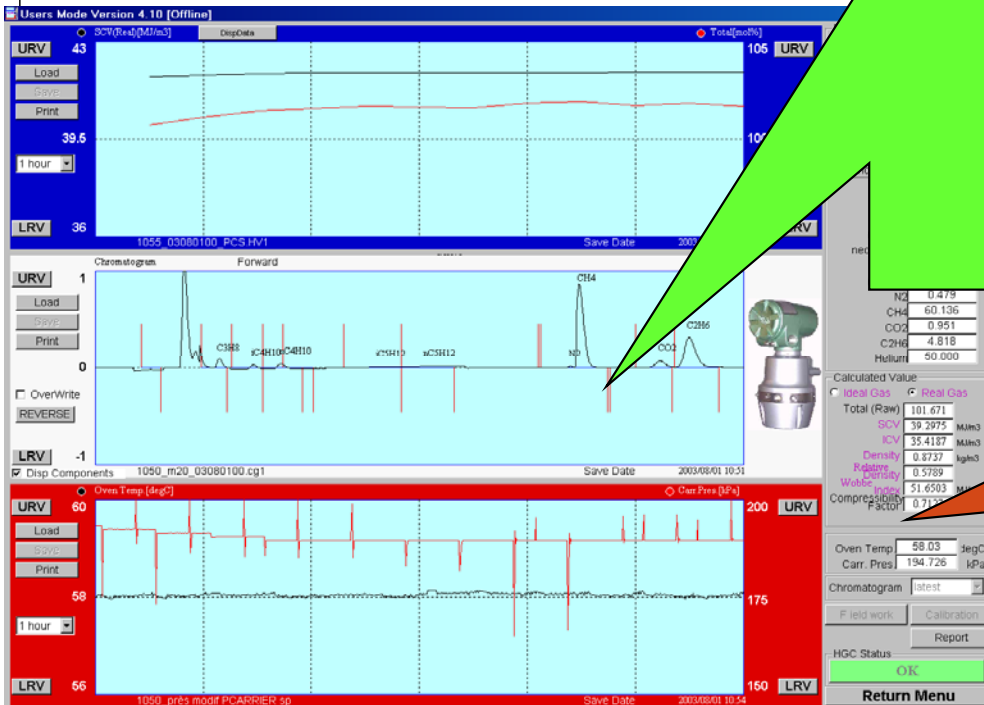
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Measurement of 11 main components

Limit content of minors components :

- $H_2 < 0.1$  % mol
- He  $< 0.1$  % mol
- $O_2 < 0.1$  % mol
- $H_2S < 0.1$  % mol

Component s	min range (% mol)	max range (% mol)	Min detection (% mol)
Méthane	50	100	-
Ethane	0	15	0.05
Propane	0	3	0.05
n-butane	0	1	0.01
i-butane	0	1	0.01
n-Pentane	0	0.5	0.01
i-pentane	0	0.5	0.01
néo-pentane	0	0.5	0.01
Hexane et + Nitrogene	0	0.3	0.01
Dioxyde de Carbone	0	20	0.1
		10	0.05



Calculation ISO 6976 :

- ☐ SCV, ICV
- ☐ Basic density  $r_b$
- ☐  $Z_b$
- ☐ Specific gravity  $d$
- ☐ Wobbe Index