



Light hydrocarbon analyser

PG 800

- ASTM D2163, D2712, D2593, D2820, D4424, ISO 7941 and others
- Benchtop GC or fast CompactGC^{4.0}
- Modular injectors and detectors
- Expandable



Get ready for tomorrow's analytics

Light hydrocarbon analyser

Measurement of light hydrocarbons is essential in refineries, natural gas and biogas production, renewable energy research, catalyst screening, and many other applications. Accurate information on the concentration and distribution of hydrocarbons is crucial for process control, research and development, and establishing the market value of finished products.

Principle of operation

Figure 1 and 2 show the schematic diagrams of the analysers. The gas sample is injected using an automatic 6-port gas sampling valve (GSV) onto a suitable capillary column. In the case of the GC1600 (1), a Split/Splitless Injector (SSL) is used; in this way the instrument is also equipped for potential liquid samples. In case of the CompactGC^{4.0} (2), a gas-splitter is used. The components are detected using a Flame Ionisation Detector (FID).

Instrument specification

- (1) Thermo GC1600 with top mounted valve oven, gas sampling valve, iConnect SSL, capillary column and FID, or:
- (2) CompactGC^{4.0}, gas sampling valve, gas-splitter, capillary column, FID
- Chromeleon chromatography data system
- Runtime depending on column and analysed hydrocarbons
- Minimum detectability < 1 ppm
- Repeatability < 1%

Results

Figures 3 and 4 show example chromatograms of the Light hydrocarbon analyser

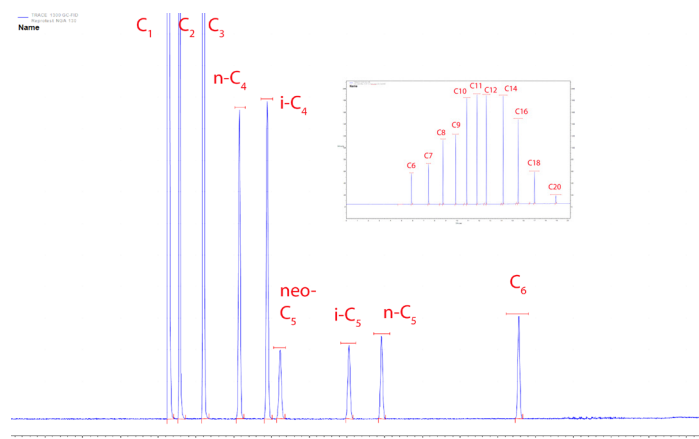


Figure 3 Light hydrocarbon analysis C₁ - C₂₀. Column: Rtx-1. FID detection

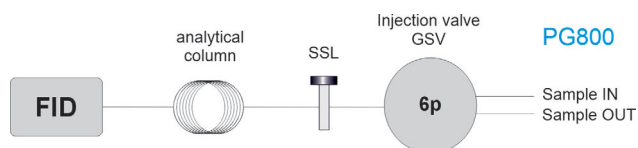


Figure 1 Diagram Light hydrocarbon analyser on GC1600, equipped with split/splitless injector

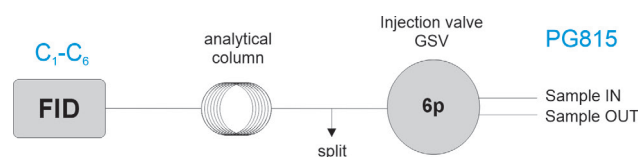


Figure 2 Diagram Light hydrocarbon analyser on CompactGC^{4.0} using a gas-splitter

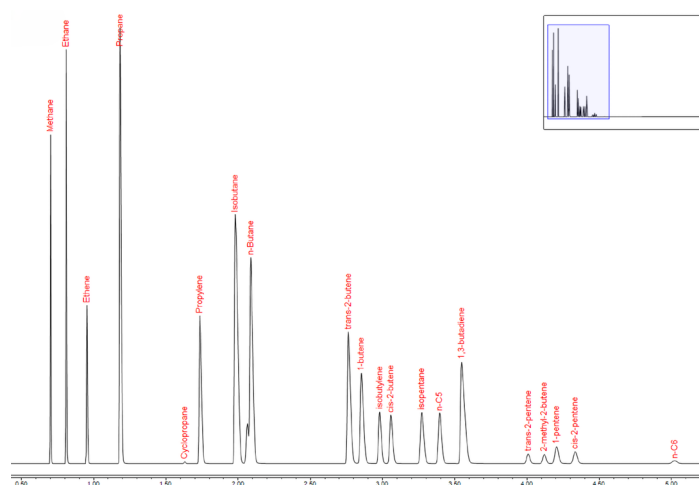


Figure 4 C₁-C₆ analysis (up to C₁₀ optional) on CompactGC^{4.0} with programmable oven. Column: Al₂O₃/MAPD. Detector: FID

Ordering information	PG80X - ABCDE Light hydrocarbon analyser based on Trace GC 1600		
	PG 815 - ABCDE Light hydrocarbon analyser based on CompactGC ^{4.0}		
code X	0	1	2
			3

For the selection of options (e.g. Valve type and passivation, Pump and vacuum sampling, Rotameter and sample connections, Pressure and moisture sensors, Hydrogen sensor for safety shut-off, GC oven cryo valves, Power plug type and more), [see the options table in the order guide.](#)

About GAS

Global Analyser Solutions provides GC & GC-MS solutions for Energy, Refinery, Chemical and Environmental markets. Our analysers address a broad spectrum of measuring requirements with high precision and reliability. Please reach out for more information on our website. www.gassite.com