



Permanent gas analyser PG215

- Permanent gases analysed in 120 seconds
- Robust analyser with reliable diaphragm valves
- Two analytical channels using TCD
- ASTM D1946, D2504, D2505



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PG215v1

Permanent gas analyser - CompactGC^{4.0}

The GAS permanent gas analyser (PGA) is the customised solution for analysing permanent gases, C₂ isomers and H₂S in various gas matrices such as hydrocarbon streams. The analyser complies with ASTM D1946, D2504 and D2505.

Principle of operation

The PGA, based on the CompactGC 4.0, features two analytical channels:

Channel 1:

Designed for the analysis of hydrogen, oxygen, nitrogen, methane, and carbon monoxide, using helium or argon as the carrier gas.

Channel 2:

Designed for the analysis of carbon dioxide, C₂ isomers, and hydrogen sulphide, using helium as the carrier gas.

Both channels are equipped with Thermal Conductivity Detectors (TCDs). Channel 1 includes a backflush option with a precolumn to prevent higher-boiling components from entering the analytical column.

Instrument configuration

- GAS CompactGC^{4.0} with dual TCD
- Three capillary columns
- Heated valve oven with two 6-port valves (rotary valves optional)
- Chromeleon CDS data system
- Runtime: 2 minutes
- Limit of detection: < 10 ppm (for all components except H₂ using He carrier gas; using Ar carrier gas: LOD H₂ < 10 ppm)
- Repeatability: < 1% RSD

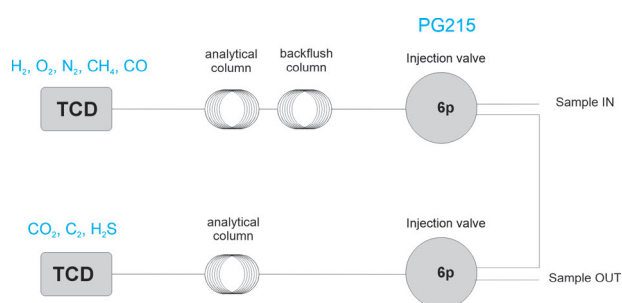


Figure 1 Diagram Permanent gas analyser (CompactGC^{4.0})

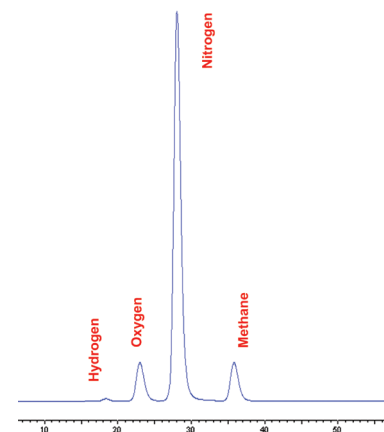


Figure 2 Chromatogram channel 1

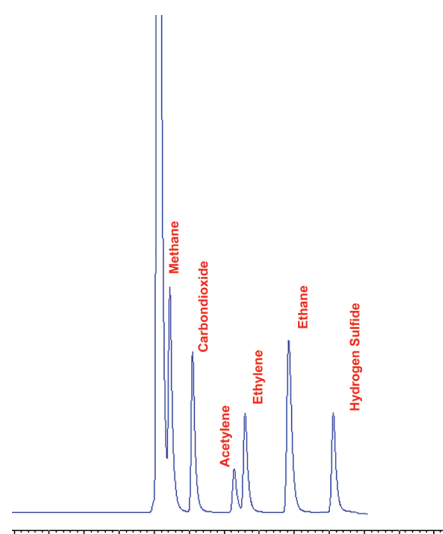


Figure 3 Chromatogram channel 2

Results

Figure 2 & 3 show the chromatograms. The minimum detectability is <0.01 % for all components (<0.05 for H₂S). The repeatability is <1% RSD.

Ordering information PG215 - ABCDE

For selecting options ABCDE (e.g. valve type and passivation, pump and vacuum sampling, rotameter and sample connections, pressure and moisture sensors, hydrogen sensor for safety shut-off, 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.

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