

Gas Chromatography Analyzers

Refinery Gas Analyzers

3-channel systems for detection and quantitation of hydrogen, permanent gases – CO₂, H₂S, and hydrocarbons C1-C8

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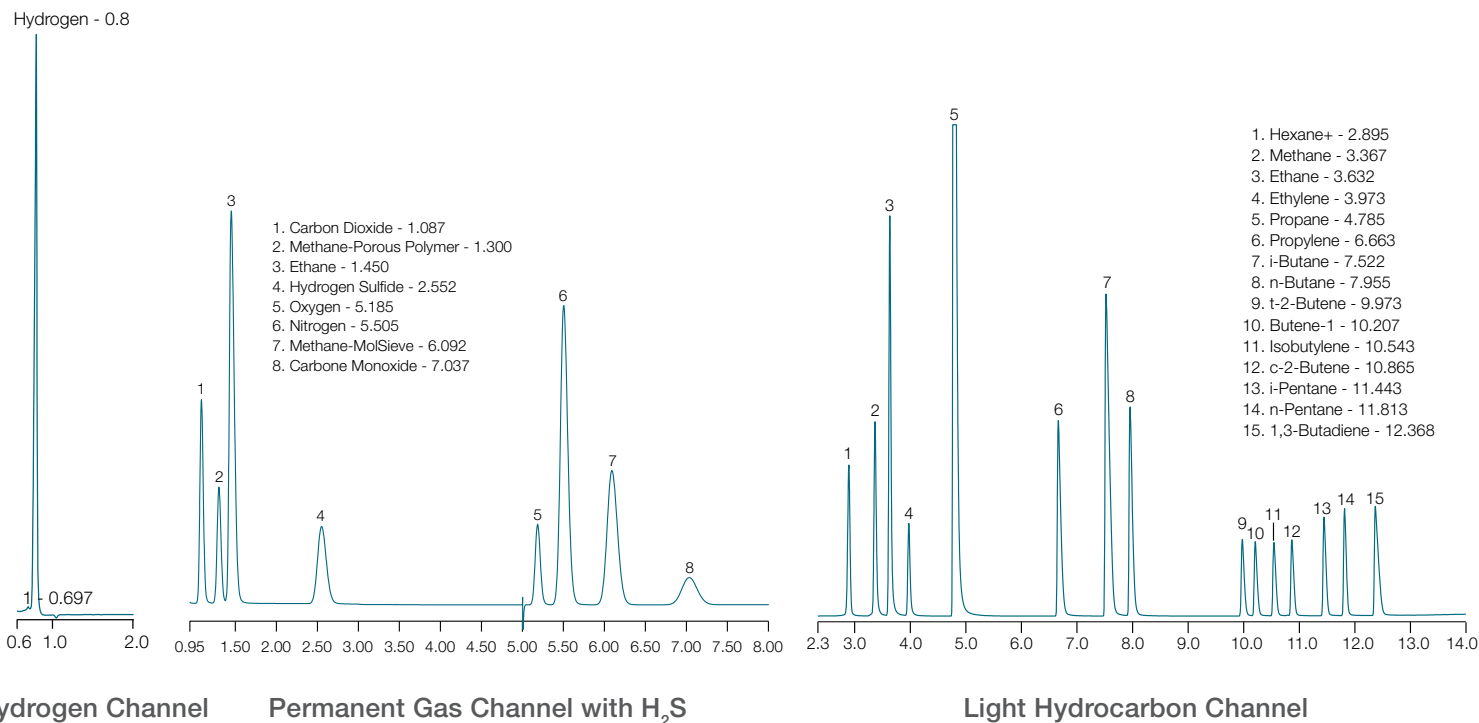
Introduction

The Thermo Scientific™ 3-channel Refinery Gas analyzers perform a quantitative determination of individual components in refinery process gases, liquefied petroleum (LP) gases and mixtures of propane and propene, excluding high-purity propene in the range of C1-C5.

Instrument configuration

- Thermo Scientific™ TRACE™ 1310 GC system
- 5 gas actuated valves
- 2 Thermo Scientific™ Instant Connect Thermal Conductivity Detector (TCD) Modules
- Thermo Scientific™ Instant Connect Flame Ionization Detector (FID)
- Bulkhead connection on front
- Auxiliary Valve oven
- 5 to 7 columns depending upon configuration

Representative chromatograms



Specifications

Part Number	REFGAS030111	REFGAS030121	REFGAS030131
Method	ASTM D2163, UOP 539	ASTM D1945, D7833, D2163	ASTM D1945, D2163, D7833, UOP 539
Sample type	Gas	Gas	Gas
Channels	Ch 1 – H ₂ Ch 2 – PGA & CO ₂ Ch 3 – C1-C8	Ch 1 – H ₂ Ch 2 – PGA & CO ₂ Ch 3 – C1-C5, C6+	Ch 1 – H ₂ Ch 2 – PGA & CO ₂ & H ₂ S Ch 3 – C1-C5, C6+
Detection	Ch 1 – TCD Ch 2 – TCD Ch 3 – FID	Ch 1 – TCD Ch 2 – TCD Ch 3 – FID	Ch 1 – TCD Ch 2 – TCD Ch 3 – FID
Detection limit	H ₂ – 10 ppm PGA – 100 ppm CO ₂ – 100 ppm HCs – 0.5 ppm H ₂ S – NA	H ₂ – 10 ppm PGA – 100 ppm CO ₂ – 100 ppm HCs – 0.5 ppm H ₂ S – NA	H ₂ – 10 ppm PGA – 100 ppm CO ₂ – 100 ppm HCs – 0.5 ppm H ₂ S – 25 ppm
Working range	0.1 to 100% v/v	0.1 to 100% v/v	0.1 to 100% v/v

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