

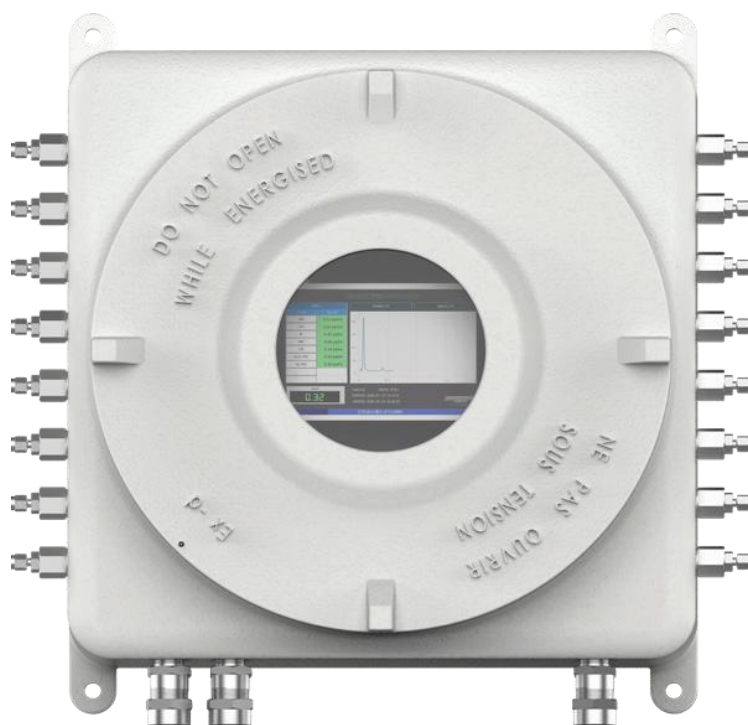


EIE

Chromatography Analyzer - Analysis of Light
Hydrocarbon Samples

EIE-LHS-01

Chromatography Analyzer - Analysis of Light Hydrocarbon Samples



- Physical safety; explosion-proof system Exd IIC T6 Gb, Zone 1 & 2
- Reliable UniLite Embedded Control System
- Multiple detectors: FID, TCD, miniature TCD, FPD, etc.
- Supports switching between no fewer than 16 samples

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Introduction

Applications: Analysis of alkylated propylene purity, propane purity, composition of hydrocracking filtrate liquefied gas, composition of small-scale ethylene tail gas, composition of absorption tower tail gas, composition of purified liquefied gas below C2, composition above C5, and liquefied gas composition (<C3, <C5).

Sampling temperature (°C): (design temperature °C);

Sampling pressure (MPa): (design pressure MPa);

Output signals: n channels of 4–20 mA DC, 1 contact alarm channel; Communication interface: RS485 to DCS.

Report Content

No.	Component Name	unit
1	Methane	V%
2	Ethane	V%
3	Ethylene	V%
4	Propane	V%
5	Propylene	V%
6	Isobutane	V%
7	N-butane	V%
8	Fumaric acid	V%
9	N-Butene	V%
10	Isobutene	V%
11	cis-2-Butene	V%
12	C5	V%



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Technical Features

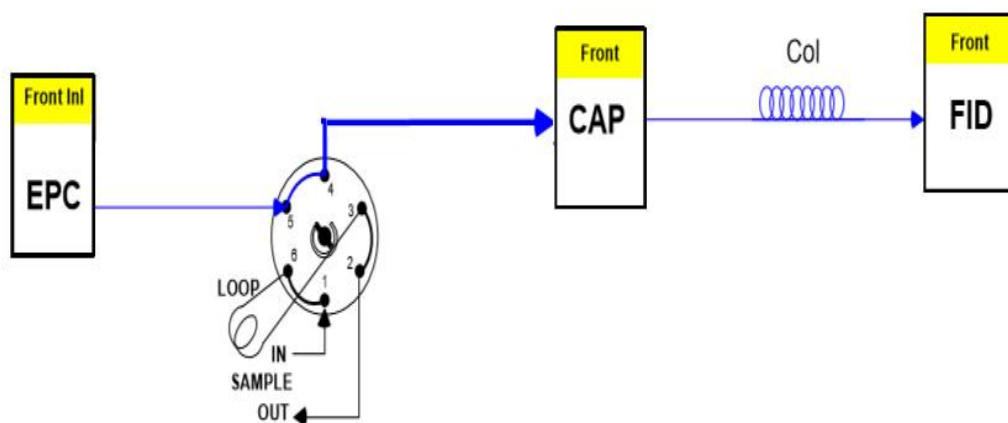
Analysis Procedure:

ASTM D2163 Standard Test Method for Determination of Hydrocarbons in Liquefied Petroleum (LP) Gases and Propane/Propene Mixtures by Gas Chromatography

Analysis Principle:

The sample is introduced into the corresponding chromatographic column via the gas injection valve, where each component is separated and detected. The percentage content of each component in the sample is calculated using the calibration area normalization method. Schematic diagram of detection.

Detection Schematic Diagram



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Basic mechanical and electrical parameters	
Enclosure	flameproof enclosure
Height and Depth	500mm × 500mm, depth 350 mm
Weight	50KG
Certifications	ATEXIICT6,ZONE1,2
Power Input	100–240 VAC, 50–60 Hz, maximum power of 300 W
Communication Mode	RS485,Ethernetx1,
Screen Size	standard configuration
4- 20 mA Output	Support (optional)
MODBUS	Support (Standard)
I/O Output	Instrument status, alarms, hardware errors, maintenance (all I/Os are configurable)

General Parameters for Chromatographs	
Chromatographic Column Type	Filling Column & Capillary Column
Heating method for the chromatographic column	constant temperature
Valve Type	Switching valve/membrane valve, operating temperature range 0–225°C
Airway Control Method	Full pneumatic EPC control system
Detector Type	FID
Keypad	configurable explosion-proof keyboard
Instrument Reverse Control Software	Equipped with built-in UniLite® system control software, it automatically performs sampling, analysis runs, and periodic calibration/system response measurements.
Communication Port Configuration Software	Modbus or other industrial standard protocols
Analog Output	Supports no fewer than 32 channels
Multiple-sample testing	Supports cyclic sampling at over 16 sampling points (optional)
control software	UniLite Industrial Edition
detector guard	FID: Automatic ignition; automatic gas cutoff upon fire suppression; alarm function