

IR-8400DC THC Gas Analyzer

IR-8400DC Gas Analyzer Features:

- Total hydrocarbon (THC) analyzer
- Low maintenance
- Explosion-proof enclosure
- NEMA 7 certified
- LCD display non-contact operation
- High reliability



RELIABLE AND RUGGED TOTAL HYDROCARBON ANALYZER

The Infrared Industries NDIR-based IR-8400DC (compensated) total hydrocarbon (THC) gas analyzer is specifically designed to measure CH₄ (methane) in addition to the full range of hydrocarbons. This allows the analyzer to distinguish a discrete CH₄ value to either be read separately from the THC reading or subtracted from it.

The benefit here is the CH₄ being a naturally occurring hydrocarbon is not required to be reported as a constituent of the THC reading. The problem has been that methane is very difficult to separate from other hydrocarbons and therefore becomes a component of the measured THC reading.

The ability to distinguish and separate the CH₄ component allows the CH₄ constituent to be removed from the THC reading, allowing the analyzer to report only the THC actually generated by the process requiring monitoring and reporting.

Tailored for the petroleum industry, this instrument is designed specifically for enhanced oil recovery applications as well as for refineries and petroleum transfer stations. The IR-8400DC is designed to continuously monitor the total hydrocarbons CH₄ (methane) and C₃H₈ (propane) as well as other hydrocarbons in process gas streams or for ambient air.

Built to withstand hostile temperature and weather environments, these analyzers come standard with a LCD display, RS232 output, analog output, and isolated linear 4-20 mA current output.

Electronics

The IR-8400DC is made with state-of-the-art electronics, which are housed in an explosion-proof enclosure. The analyzer is ruggedly built for long life and a high tolerance to shock and vibration.

Material

Compatibility is assured by using corrosion-resistant materials such as stainless steel sample cells and sapphire windows and by selecting specialized materials for seal and tubing components.

Temperature

The IR-8400DC is temperature controlled and compensated for long-term stability and accuracy, negating the need for frequent calibrations. Maximized performance and a high resistance to harsh environments are maintained with the use of a temperature-stabilized optical bench and electronics.

Company Overview

Infrared Industries has been a leading developer and producer of state-of-the-art gas analyzers instrumentation since 1969. The company is widely recognized for servicing the petroleum, medical, utility, automotive, and industrial industries with rugged, reliable, and accurate yet affordable analyzers. In business since 1959, Infrared Industries has proven the ability to produce the finest measuring, monitoring, and compliance equipment available today.

CUSTOMIZED APPLICATIONS

The analyzer reads total hydrocarbons and calibrates to a propane standard. Optional standards such as butane are available upon request. Call us today and we can build a tailor-made gas analyzer for you.

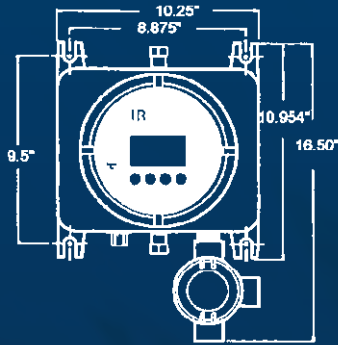
APPLICATIONS

- Petroleum industry
- Continuous emissions monitoring
- Process compliance monitoring
- Process control

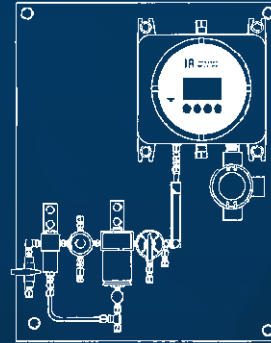
IR-8400DC

COMPENSATED TOTAL HYDROCARBON GAS ANALYZER

IR-8400DC DIMENSIONS AND SIDE VIEW



IR-8400DC GAS ANALYZER WITH IR-1150 SAMPLE CONDITIONER SYSTEM



SPECIFICATIONS

Performance measurement range:
0-100% as specified by customer

Accuracy:
$\pm 1\%$ full scale or $\pm 2\%$ of reading
(single gas)

Repeatability:
$\pm 1\%$ full scale or $\pm 2\%$ of reading

Stability - 24-hour period:
$\pm 0.5\%$ full scale zero drift (maximum)
$\pm 1\%$ full scale span drift (maximum)

Stability - 90-day period:
$\pm 1\%$ full scale zero drift (typical)
$\pm 2\%$ full scale span drift (typical)

Response time:
Less than 10 seconds (electronic)

Warm-up time:
Less than 1 hour

Temperature range:
-40° to 122° F (-40° to 50° C)

High Temperature range Option Available:
-40° to 140° F (-40° to 60° C)

Gas Sample Requirements

Flow rate:
2 scfh (1 lpm) - minimum
4 scfh (2 lpm) - maximum

Moisture:
0 to 99% non-condensing

Output

Analog:
0 to 100mV standard
0 to 1V, 0 to 5V (optional)
4 to 20mA (isolated)
RS232 bi-directional digital communication

Alarms:
Optional

Gas Flow Systems

Connections:
Sample inlet - 1/4" compression fitting
Sample outlet - 3/8" or 1/4" compression fitting

Materials:
316 SS, sapphire, Teflon, viton, polypropylene (typical)

Standard Gases

- Propane
- Methane
- Butane

Power
110 VAC, 50/60 Hz
or
220 VAC, 50/60 Hz

Enclosure (w x l x d)

10.25" x 10.25" x 9" (26 cm x 26 cm x 22.86 cm) enclosure with display window and attached 3.5" x 2.5" junction box; NEMA 7 (C:, Grp D, E Div 1, 2)

Weight

25 lbs. (11.35 kg)

Warranty

Infrared Industries, Inc. warrants each gas analyzer it manufactures to be free of defects in material and workmanship for a period of one (1) year from the date of delivery. Abuse, misuse or unauthorized changes excluded. Extended warranty is available.