

METHANE FROM FLARING TOOLKIT



Composition: Specific Gravity Analyser (Relative Density)

Uncategorized > Composition: Specific Gravity Analyser (Relative Density)

Summary

Specific Gravity (SG) analysers are purpose-built gas monitors, which can determine the specific gravity or Relative Density of the flare gas.

How it Works

The gas sample pressure is measured by a pressure transmitter, this gas then flows through the density meter assembly which contains a vibrating element, a rotameter, and a flow control valve. As the density of the gas around the element changes, the natural vibration frequency of the element changes too.

The measured pressure and the measured frequency of the vibrating element in the density meter allows the measured density and Specific Gravity of the gas to be determined.

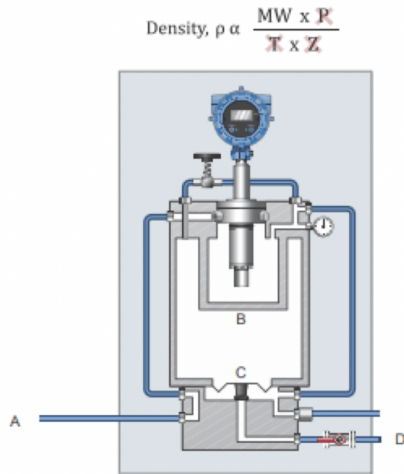


Figure 1: Principles of a Specific Gravity (SG) Analyser



Figure 2: Flare Gas analyser incorporating a Specific Gravity Analyser

Flare Gas Analysers incorporating Wobbe Index and Specific Gravity analysers are used widely in the Oil and Gas Industry.

Advantages



On-line analysis at regular intervals



High accuracy



Low uncertainty

Limitations



Maintenance requirements



Equipment costs



Maintenance costs

Go Deeper

- [Emerson](#)
- [Sarasota](#)

Case study

No case study available at this time.

Do I know the gas composition?



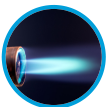
Composition: Spectrometry (GC – MS)



Composition: On-Line



Composition: Laboratory Analysis



Composition: Wobbe Index Analyser (Calorimeter)



Composition: Gas Chromatograph

