

# GFM435

## Gas Analyser and Flow Meter

Optimised for Site Investigation and Landfill Monitoring



### Main Features

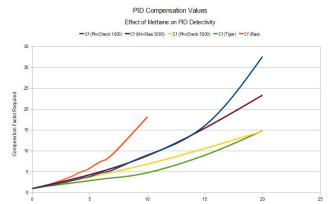
- 5 gas analysis as standard (CH<sub>4</sub>, LEL(CH<sub>4</sub>), CO<sub>2</sub>, O<sub>2</sub>, CO and H<sub>2</sub>S) - 2 further optional gas channels.
- Borehole flow, borehole pressure and atmospheric pressure measurements.
- Optional temperature and velocity measurement
- All gas and flow channels MCERTS certified.
- Hexane equivalent measurement of hydrocarbon vapours from common liquid fuel and oil spills.
- Display of PID compensation factors for accurate operation of PID sensors in CH<sub>4</sub> rich atmospheres.
- Intrinsically safe EEx ib IIB T1

### HEXANE Channel

With the **GFM435** when and if the methane sensor shows an over-range signal or abnormally high value (a good indicator that other hydrocarbons are present in a borehole) the hexane value will remain valid and in range up to 2.000% allowing standardised monitoring of other hydrocarbon vapours expressed as a percentage of hexane vapour equivalent.

### PID Compensation Factor

The PID (Photo Ionisation Detector) is the standard instrument used to characterise hydrocarbons other than methane in a borehole. However, the presence of methane attenuates the UV light of the PID quenching its signal and consequently de-sensitising its response. The effect can be catastrophic. Only a few percent of methane can make the indicated PID signal inaccurate by factors of 1/10th or more.



The **GFM435** PID Compensation Factor is a figure derived from extensive testing of a range of common PID instruments. Its value (1 – 10) must be used to multiply the PID reading to give an accurate measure of the total hydrocarbons in the borehole when methane is present.

### Borehole Flow Measurement

The built-in flow transducer is very robust. The transducer is calibrated up to 100 l/hr full scale measurement range but is tested at four times this flow rate. This allows unexpected short bursts of over-range flows to be tolerated without instrument damage.



### MCERTS Certificate MC100164/00

Approved to the new mCERTS standard Version 3.1 dated February 2010. The instrument certification can be viewed at:

<http://www.siraenvironmental.com/UserDocs/mcerts/MCERTSCertifiedProductsPortableEmissionMonitoringSystems.pdf>



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