Pure gas analysis

Waste incineration

Glass production

Refinery processes

Appliance testing and compliance

Solvent incineration

Power generation

Paper manufacturing

Cement production

Food processing

Pharmaceutical

Natural gas

Crematoria

Combustion control

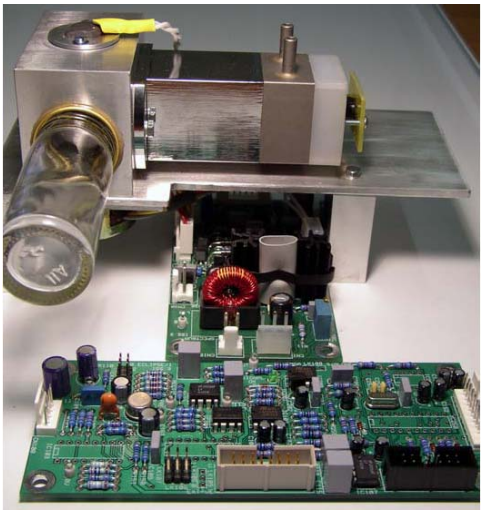
Land fill gases

Clean Development Mechanism (CDM)

Wood burning boilers

Particulate emissions

# Spectrum OEM Infrared Optical Bench

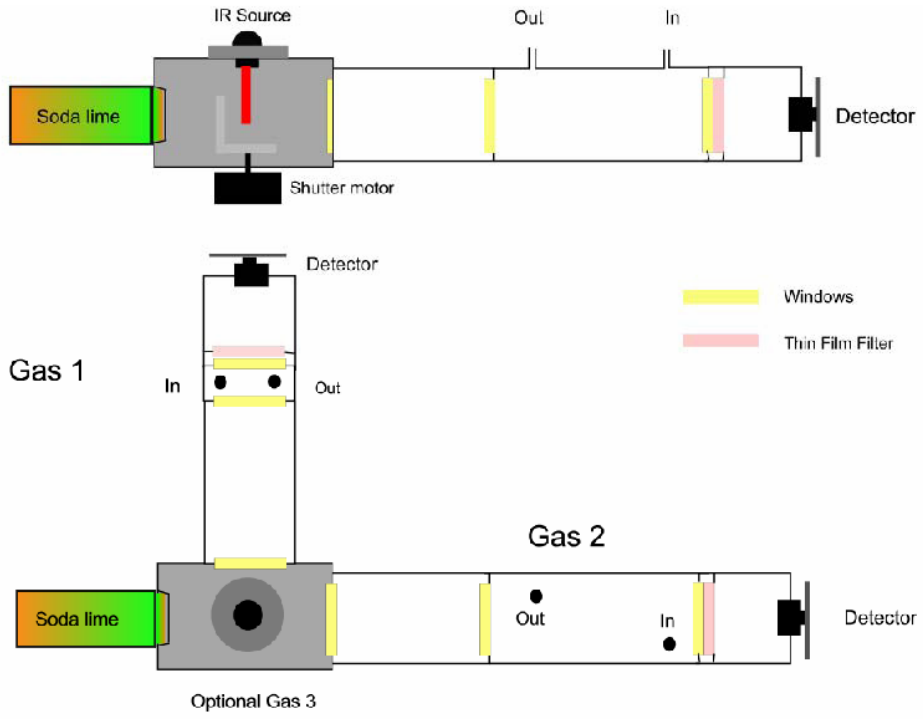


- **Specifically designed to meet OEM demand**
- **Up to 3 gases measured simultaneously**
- **Compact design**
- **Largest range of gases unmatched by other OEM's**
- **Highly reliable and proven design**
- **Powered by a single 24V dc supply**
- **External or on board calibration controls**
- **Integration with microprocessor via I2C bus**

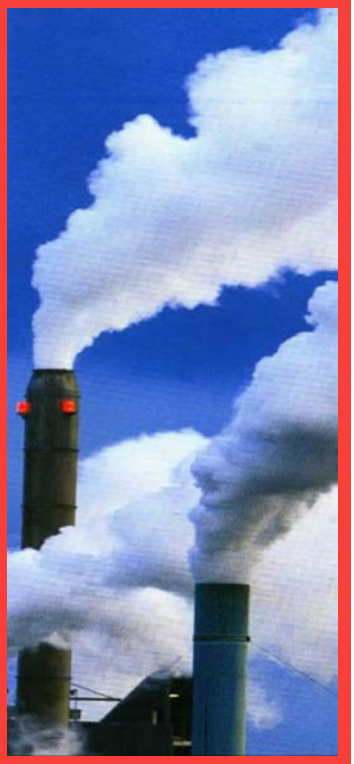
## INFRARED OEM OPTICAL BENCH

Spectrum is a self contained analyser bench for OEM applications. It can be provided in a number of variants to cover a wide range of applications and gases. The single beam infrared technology gives high selectivity, excellent sensitivity and repeatability – versatility unmatched by other OEM units.

The on-board electronics handle most of the work, leaving final calibration and display options open for ease of integration. Optional linerisation of the signal is available, together with external control of zero and span functions. Integration with processors is through the optional I2C bus connection,




**Experts in Gas Analysis**



## TECHNICAL SPECIFICATION

| | |
|---|---|
| **Principle:** | NDIR with solid state detector |
| **Resolution:** | 0.5% fsd |
| **Repeatability:** | +/- 1.0% fsd |
| **Noise:** | 0.5% fsd |
| **Zero Stability:** | 2.0% fsd over 24 hours |
| **Span Stability:** | 0.5% fsd over 24 hours |
| **Temperature Effect:** | Zero: +/- 0.25% per 1C |
| **Temperature Effect:** | Span: +/- 0.25% per 1C |
| **Response Time:** | Typically 4 secs to T90<br>Dependant on cell size |
| **Flow Rate:** | Typically 0.2 to 1 litre per minute |
| **Output:** | 1V, 2V non linear |
| **Connections:** | 2 pin power connection for<br>24V dc (+/- 10%)<br>14 pin DIL header for all other<br>Connections |
| **Power Consumption:** | 750mA maximum |

## OPTIONS

| | |
|---|---|
| **Lineariser:** | Provides a linearised voltage or mA signal |
| **I2C bus:** | Allows connection to processor for software<br>Control of coarse zero |
| **Single Gas<br>Dual Gas and<br>Triple Gas variants**: | Allows up to 3 gases for independent<br>Measurements |

## GASES AND RANGES

Up to 25 gases, with ranges from 0-1000ppm to 0-100% available.

**Please note**
Some gases, for example Ammonia, requires corrosive gas connections

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