

### OPTICAL GAS INDICATOR

### LEADERS IN GAS DETECTION

## FI-8000 Fumigation Version

Since 1977



#### **Features:**

- Capable of measuring up to 5 kinds of fumigation gases
- Easy-to-read wide LCD display
- Built-in sample pump
- Operates continuously for over 12 hours (on 3 AA batteries)
- Optional Lithium Ion battery pack (over 18 hours continuous use)
- International certifications IECEx / ATEX / IP-67
- Lightweight at only approx. 1.2 kg
- Data logging stores up to 100 readings
- Readings in both g/m3 and oz/cubic feet

#### **Applications:**

Commercial fumigation applications

Following on from the popularity of the FI-21, the FI-8000 fumigation gas monitor with IECEx / ATEX / IP-67 has now been equipped with more capability of detecting new gases, as well as reducing in size. The FI-8000 is the latest model from a long line of optical interferometers dating back to the 1930's when Riken's founder first developed the technology for methane detection to help prevent explosion accidents on oil tankers and in coal mines.

The FI-8000 fumigation version is calibrated for five (5) selectable gas readings on the digital display. This device is a precision gas analyser which is adapted to measure the % volume concentration of any of the commonly used gas in a mixture of air for fumigation gas. The operating principle of this analyser utilises the highly accurate measurement with CCD and fourier analysis technology and electronic circuitry to provide direct digital readout.

This version of the FI-8000 has been setup to measure commonly used fumigants such as sulfuryl fluoride (SO2F2), cyanogen (C2N2), phosphine (PH3), hydrogen cyanide (HCN), and methyl bromide (CH3Br). The principle operation is the comparison of the optical refractive index of the gas, and hence there are no moving parts or problems with sensor drift. This makes the calibration remain very stable.



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## **Specifications**

# FI-8000 Fumigation Version

| Detection principle       | Optical Interferometric method   |  |
|---------------------------|--|--|
| Sampling Method           | Automatic draw-in by built-in pump   |  |
| Display                   | LCD digital display (gas concentration, gas name, measuring range, battery level)  |  |
| Self Diagnosis Function   | Low battery voltage, low UV intensity, low contrast, abnormal pressure, abnormal temperature                             |  |
| Power Supply              | Alkaline battery unit (AA alkaline battery x 3) (standard) or lithium ion battery unit (optional)                        |  |
| <b>Protection Class</b>   | IP-67 and international certification: IECEx and ATEX  |  |
| Operating temp & humidity | Temperature range: -20— 50°C, humidity range: below 95% RH (non condensing)  |  |
| Dimensions & weight       | Approx. 154mm (w) x 127mm (h) x 81mm (d), weight approx 1.1 kg (with battery unit included)                              |  |
| Continuous Operating Time | Alkaline: 12+ hours Lithium Ion: 18+ hours   |  |
| External Output           | I Output IrDA (for data logger)  |  |
| Outputs                   | Data logger  |  |
| Functions                 | Data logging, pressure correction and temperature correction   |  |
| Standard Accessories      | Absorption tube, sampling hose, AA size alkaline batteries (3pcs) and additional filters to assist with humidity issues. |  |
| Optional Accessories      | AC adapter, data logger software and Lithium Ion battery pack  |  |
| Warranty                  | 1 year material and workmanship  |  |

#### **TYPE - 01 FUMIGATION GAS**

FI-8000 TYPE-P-48-01 (fumigation gas and pump specification)

|   | MEASURING GAS TYPE<br>(Display Characters)          | MEASURING RANGE<br>(Minimum Digit) |
|---|---|------------------------------------|
| 1 | METHYL BROMIDE (CH3Br)                              | 0-200 g/m3 in Air                  |
| 2 | METHYL BROMIDE (CH3Br)                              | 0-200 oz/ 1,000 cubic feet (NEW)   |
| 3 | SULFURYL FLUORIDE (SO <sub>2</sub> F <sub>2</sub> ) | 0-200 g/m3 in Air                  |
| 4 | SULFURYL FLUORIDE (SO <sub>2</sub> F <sub>2</sub> ) | 0-200 oz/ 1,000 cubic feet (NEW)   |
| 5 | PHOSPHINE (PH <sub>3</sub> )                        | 0-50 g/m3 in Air                   |
| 6 | PHOSPHINE (PH <sub>3</sub> )                        | 0-50 oz/ 1,000 cubic feet (NEW)    |
| 7 | CYANOGEN (EDN)                                      | 0-50 g/m3 in Air                   |
| 8 | CYANOGEN (EDN)                                      | 0-300 g/m3 in Air                  |



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