OPTOSKY
Spectroscopy Solutions

# Datasheet

# Portable Gas Analyzer GF330B

## Features

- Compatible with over 100 gas sensors.
- Smart Algorithm
- Optional Sensors
- Active Pumping: Active pump suction design.
- Low Power: 32-bit ultra-low power microprocessor.
- Compensation Algorithms
- 5-inch high-definition color screen.
- Supports switching between ppm, μmol/mol, mg/m³, etc.
- Durable Housing
- Automatic data storage.
- Supports USB one-click export
- Optional wireless Bluetooth portable printer.
- Supports Bluetooth and NB module interconnectivity.

## Application

- Research: Detecting toxic gases in labs.
- Agriculture: Monitoring gases in storage and warehouses.
- Industry: Tracking toxic gas levels in industrial sites.
- Safety: Monitoring gas composition in natural gas and petrochemical sectors to prevent hazards.
- Public Safety: Monitoring in firefighting, municipal services, and emergency operations.

## Description

The Portable Gas Analyzer from Optosky is an advanced device for continuous detection of toxic, harmful, and flammable gases, including VOCs. With non-reactive materials for stability and longer maintenance cycles, it meets on-site needs effectively.

Compatible with over a hundred gas sensors, this analyzer can detect up to eight gases simultaneously, offering customizable sensor combinations. Powered by a long-lasting lithium battery, it features an intuitive Chinese interface and various alarm systems for safety.

Widely applicable across industries such as petroleum, environmental protection, and emergency response, the Portable Gas Analyzer is essential for modern gas detection, reflecting industry trends toward smarter solutions.




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# 1. Parameter

| Parameter | Details |
|---|---|
| Measurement Principle | Infrared absorption spectroscopy (NDIR), electrochemical, catalytic combustion, semiconductor, PID |
| Measured Gases | Hydrogen fluoride, hydrochloric acid, chlorine, VOCs, etc. (see gas appendix for details) |
| Measurement Range | See gas appendix for details |
| Accuracy | ≤ ±3% F.S. |
| Linearity | ≤ ±3% F.S. |
| Repeatability | ≤ ±3% F.S. |
| Response Time (T90) | T90 ≤ 30s (electrochemical); T90 ≤ 10s (NDIR) |
| Drift | ≤ ±3% F.S/month |
| Pre-treatment | Built-in dust removal and other pre-treatments |
| Data Analysis | Curve waveform analysis and average value statistics displayed |
| Compensation Features | Temperature and humidity compensation, cross-interference compensation |
| Display | 5-inch HD color touchscreen |
| System Language | Chinese |
| Sampling Method | Pump suction |
| Shell Material | ABS engineering plastic |
| Wireless Output | NB/4G/5G (optional) |
| Communication Interface | RS232, USB |
| Alarm Method | Audio-visual alarm |
| Battery Capacity | 4AH lithium battery |
| Charging Parameters | 16.8V 1A |
| Protection Level | IP66, dustproof, splash-proof, anti-static |
| Warranty | 1 year |
| Data Storage | Supports expandable storage card, capable of storing over ten million data sets, supports real-time viewing, deletion, and data export |
| Overall Dimensions | 330*280*140mm |
| Weight | > 1.5 kg |
| Accessories | Manual, certificate, warranty card, USB charger (including data cable) |

# 2. GF330B Gas Measurement Table

| Gas Name | Molecular Formula | Measurement Range |
|---|---|---|
| Carbon Monoxide | CO | 0-2000 ppm |
| Oxygen | O2 | 0-100% |
| Hydrogen Sulfide | H2S | 0-500 ppm |
| Hydrogen | H2 | 0-40000 ppm |
| Sulfur Dioxide | SO2 | 0-2000 ppm |




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| | | |
|---|---|---|
| Nitrogen Dioxide | NO2 | 0-2000 ppm |
| Nitric Oxide | NO | 0-2000 ppm |
| Chlorine | Cl2 | 0-200 ppm |
| Hydrogen Chloride | HCl | 0-200 ppm |
| Phosphine | PH3 | 0-2000 ppm |
| Formaldehyde | CH2O | 0-100 ppm |
| Ethylene Oxide | C2H4O | 0-500 ppm |
| Hydrazine | N2H4 | 0-1 ppm |
| Ammonia | NH3 | 0-1000 ppm |
| Hydrogen Cyanide | HCN | 0-100 ppm |
| Methane | CH4 | 0-100% |
| Hydrogen Fluoride | HF | 0-200 ppm |
| Silane | SiH4 | 0-50 ppm |
| Hydrogen Peroxide | H2O2 | 0-2000 ppm |
| Phosgene | COCl2 | 0-1 ppm |
| Chlorine Dioxide | ClO2 | 0-20 ppm |
| Fluorine | F2 | 0-1 ppm |
| Chlorine | Cl2 | 0-200 ppm |
| Tetrahydrothiophene | C4H4S | 0-50 $mg/m^3$ |
| Hydrogen Selenide | HSe2 | 0-5 ppm |
| Hydrogen Fluoride | HF | 0-10 ppm |
| Methanethiol | CH3SH | 0-10 ppm |
| Ethylene | C2H4 | 0-2000 ppm |
| Hydrogen Bromide | HBr | 0-200 ppm |
| Bromine | Br2 | 0-200 ppm |
| Arsenic Hydride | AsH3 | 0-1 ppm |
| Ozone | O3 | 0-200 ppm |
| Volatile Organic Compounds | TVOC | 0-2000 ppm |
| Carbon Dioxide | CO2 | 0-50000 ppm |




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