

Product Overview



Genesis
Portable gas monitor with
Duraplus™
For one to four gases

The Genesis™ Portable Gas Monitor

Thermo Electron's Genesis, a personal, portable gas monitor, combines ease of operation with outstanding durability to deliver reliable performance in the most demanding environments - even a direct hammer blow to the display. Weighing only 16 ounces, the Genesis is protected by a die-cast aluminum housing, rubber guards, a high-impact polycarbonate display window, and the Duraplus™ suspension system, to cushion internal components. The Genesis is one tough gas detector.

Benefits

- Backed by a two-year, no-questions-asked warranty on all monitor components
- Most versatile monitor available
- Minimum two-year sensor life (CO, H₂S, O₂, LEL)
- Duraplus™ technology for outstanding durability
- Bump Test and Calibration reminders alert the user when to perform maintenance

Features

- Simple one-button calibration
- Display with user-friendly icons
- Four configurations:
 - Diffusion style
 - Internal pump
 - Hand-aspirated pump
 - Extender cable
- Powered by three 'AA' (alkaline) batteries (22 hours) or rechargeable NiHy (16 hours) (for diffusion mode)
- Peak, STEL, and TWA readings displayed on request
- Bright LED array (for alarm conditions), 180° viewable
- RF resistant
- User selectable, password protection for calibration
- Rugged die cast aluminum housing with protective rubber guards
- Glow-in-the-dark buttons
- Water-resistant design
- Configurable for one, two, three, or four plug-in sensors



Options

- Internal datalogging feature allows programming of up to 16 user IDs and 64 location IDs with Windows compatible software package
- Datalogging retrieval kit
- Battery chargers (115V AC, 230V AC, 12V AC)
- 25 foot or 50 foot hose for sample-draw pump

- **Extender cables, 20 feet or 50 feet**



- **Hand aspirated pump**



- **Internal sampling pump**



- **Vinyl carrying case**



- **Calibration kits**

All gas monitoring instrumentation must be calibrated on a regular basis to ensure proper calibration and maximum safety



–Kits include regulator, tubing, and calibration cup to fit over sensors and all other accessories needed to perform sensor calibration

- **Large storage case**



- **Battery Conditioning Station**

More than a simple battery charger, the microprocessor controlled Conditioning Station automatically adjusts its charge cycle to optimize battery performance and life



- Conditions up to six battery packs at one time
- Detects insertion of battery pack - even packs with no voltage
- Upon insertion, conditioning station evaluates current battery status and performs appropriate conditioning
- Signals when pack is fully charged

- **Small storage case**



Genesis

With a high-impact polycarbonate display and the Duraplus™ internal shock absorber system, the Genesis is one tough gas detector

Specifications

Sensors

- Catalytic compensated: combustible gases
- Electrochemical: Cl₂, CO, HCN, H₂S, O₂, NH₃, NO, NO₂, PH₃, SO₂

Sampling Methods

- Diffusion (standard)
- Sample-draw (optional built-in pump)
- Extender cable (optional 20 or 50 foot)

Response Time

90% in less than 30 seconds

Accuracy

±10% of reading (when calibrated and maintained according to instruction manual recommendations)

Repeatability

±5% of reading (when calibrated and maintained according to instruction manual recommendations)

Operating Temperature

-4°F to 113°F (-20°C to 45°C)

Humidity Range

0 to 95% RH, non-condensing

Alarms

- Falling/rising (O₂)
- Rising low/high (all toxics & combustible)
- Sensor circuit failure
- Low battery
- Low flow (pump version)
- Log full (data logging version)
- Audible buzzer (93 dB at 30 cm)
- Flashing LED array
- User adjustable alarms

Display

LCD, back light on demand

Power Sources

Intrinsically safe battery packs (three AA alkaline or NiHy battery pack)

Battery Life (20°C/68°F)

- Alkaline: 22 hours without pump; 11 hours with pump
- NiHy: 16 hours without pump; 8 hours with pump

Controls

On/off, air, back light

Dimensions

2.25 in (57 mm) H x
3.7 in (94 mm) W x 6.0 in (152 mm) D

Weight

16 oz (454 g)

Casing Materials

Powder coated, die cast aluminum with molded, protective end caps

Splash Resistance

Water-resistant, gasketed housing

Intrinsic Safety Rating

- UL classified and CSA certified for Class I, Division 1, Groups A, B, C, & D
- LCIE certified intrinsically safe EEx ia IIC T4

Sensor Warranty

- Two year (CO, H₂S, O₂, LEL)
- One year (Cl₂, HCN, NH₃, NO, NO₂, PH₃, SO₂)

Instrument Warranty

Two year (materials and workmanship)



Range of Gases Detected					
Gas	Formula	Standard Range	Gas	Formula	Standard Range
Ammonia	NH ₃	0-100 ppm in 1 ppm increments	Nitric oxide	NO	0-100 ppm in 1 ppm increments
Carbon monoxide	CO	0-250 ppm in 1 ppm increments	Nitrogen dioxide	NO ₂	0-9.9 ppm in 0.1 ppm increments
Chlorine	Cl ₂	0-9.9 ppm in 0.1 ppm increments	Oxygen	O ₂	0-30.0% Vol in 0.1% increments
Combustible	LEL	0-100% LEL in 1% LEL increments	Phosphine	PH ₃	0-3.00 ppm in 0.01 ppm increments
Hydrogen cyanide	HCN	0-30 ppm in 1 ppm increments	Sulfur dioxide	SO ₂	0-9.9 ppm in 0.1 ppm increments
Hydrogen sulfide	H ₂ S	0-200 ppm in 1 ppm increments			

About Thermo

Thermo Electron Corporation, the world's leading maker of high-tech instruments, provides instruments, equipment, software, and solutions that help laboratory and industrial customers advance scientific knowledge, enable drug discovery, improve manufacturing processes, and protect people and the environment. With annual revenue

exceeding \$2 billion, Thermo is a global leader employing 11,000 people in 30 countries worldwide. The company is based in Waltham, Massachusetts.

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