

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

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