

The most versatile gas detection system on the market today

Product Specifications

Thermo Scientific MIRAN SapphRe Portable Ambient Analyzer



Key Features

- Exclusive wavelength generator filter design
- Library of up to 121 components
- Sensitive for sub-ppm detection
- Versatile and upgradable
- Lightweight and portable

The Thermo Scientific MIRAN SapphRe Portable Ambient Analyzer is a family of portable, lightweight infrared instruments that can monitor ambient air in workplace environments for the purpose of detecting the presence of gases. The exclusive design of the wavelength generator filter allows accurate and fast wavelength selection separating the MIRAN SapphRe Analyzer from other portable gas analyzers.

The MIRAN SapphRe Analyzer contains a single-beam infrared spectrophotometer to specifically and accurately measure many gases with a single unit. A microcontroller will automatically control the analysis, process the measurement signal, and calculate the absorbance values. Results of this analysis can be displayed in parts per billion (ppb), parts per million (ppm), percent (%), mg/m³, or absorbance units.

The rechargeable internal battery pack provides power for up to four hours of continuous operation. The system includes a separate charger/power supply that will allow the analyzer to be powered from an AC supply. It is also used to recharge the battery pack either in an offline mode or while the analyzer is running in normal mode.

The MIRAN SapphRe analyzer models can be configured with two options: intrinsic safety certification and spectral scanning using Thermo Scientific ThermoMatch™ Spectrum Correlation Software.

All MIRAN SapphRe analyzers include a user-defined library space for 10 single-gas and 10 multi-gas applications. Upgrade options are available for spectral scanning to be used with ThermoMatch for field identification.

Product Specifications

To maintain optimal product performance, you need immediate access to experts worldwide, as well as priority status when your air quality equipment needs repair or replacement. We offer comprehensive, flexible support solutions for all phases of the product life cycle. Through predictable, fixed-cost pricing, our services help protect the return on investment and total cost of ownership of your Thermo Scientific air quality products.

Thermo Scientific MIRAN SapphiRe Portable Ambient Analyzer

Detector Type	Single beam infrared spectrophotometer
Pump Flow Rate	14 liters per minute (nominal) with sampling wand and particulate filter
Analysis Time	Following purge (typical): single wavelength, 20 seconds; 5 wavelengths, 50 seconds; spectral scan, 165 seconds
Alarms	User definable
Readout	8 lines 40 character LCD
Response Time	18 seconds to 90% of final reading
Pathlength	0.5 m & 12.5 m
Sample Cell Volume	2.23 liters
Battery	Internal, rechargeable NiCd 7.2V nominal; 5.7 Ah capacity; discharge time 4 hours; recharge time 4 to 6 hours
Output	0-1 Vdc, parallel, serial
Physical Dimensions	21.8 in (553 mm) W x 14.4 in (365 mm) H x 7.6 in (193 mm) D
Weight	24 lbs (10 kg)
Intrinsic Safety Certifications	User-specified models are certified for: ETL (Class 1, Div. 1, Groups B,C & D Temp Class T4) ETL-C (Class 1, Div. 1, Groups B,C & D Temp Class T4)
Accessories	Leak Detection/Sampling Wand, Transportation/Carrying Case, Field Performance Check Kit

Ordering Information

The Thermo Scientific MIRAN SapphiRe Portable Ambient Air Analyzer is available in three models and may be configured to include intrinsic safety certification and spectral scanning using the ThermoMatch™ Spectrum Correlation Software.

MIRAN SapphiRe XL

Contains 121 single-gas compounds. The XL analyzer offers optimal measurement capabilities for high-end users who need to measure many or mixed atmosphere gases. It is ideal for consultants, industrial hygienists, regulatory agencies and emergency response professionals.

MIRAN SapphiRe SL

Contains 50 single-gas compounds. The SL analyzer provides flexibility for users who perform similar measurements on a routine basis. It is popular with indoor air quality specialists and anesthetic gas monitoring technicians.

MIRAN SapphiRe DL

The DL analyzer is designed for users who regularly encounter a limited number of air monitoring applications. Defined applications are loaded into the user library. It features quick and easy operation for enforcement agencies and specified compound measurement projects.

ThermoMatch™ Spectrum Correlation Software

Available on all models, ThermoMatch software includes 150 commonly toxic industrial compounds, and may be modified to a user library of hundreds more. This software enables the user to detect and identify hazardous gases on-site resulting in quicker corrective action and less money expended on "blank" samplers being analyzed at the lab.

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This product is manufactured in a plant whose quality management system is ISO 9001 certified.

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