

MAX-iR Mobile Monitoring

Mobile system for low-level detection of hazardous gases

The Thermo Scientific™ MAX-iR™ Mobile Monitoring Solution is designed specifically for mobile gas analysis to detect and identify areas of risk in a facility.

The revolutionary MAX-iR FTIR Gas Analyzer with Thermo Scientific Starboost™ Technology is at the core of every mobile cart system and is typically configured with Automated Sample Console (ASC-10) and the Thermal Oxidizer Module (MAX-OXT). In combination with a cart and laptop, these three modules can be arranged and optimized for many monitoring applications including low-level detection of ethylene oxide, formaldehyde and other hazardous gases in emissions, indoor air quality, and at the facility's fence line.

Integrated into the Mobile Monitoring Solution, the ASC-10 console allows for heated sample flows up to 10 L/min and has three heated valves for automated switching between the three sample modes. It has three independent heated zones: the manifold oven, sample pump, and heated transfer line.

Enabling automation and enhancing customer experience, all MAX-iR FTIR systems come standard with Thermo Scientific MAX-Acquisition™ Automation Software and MAX-Analytics™ Software that provide industry-leading analytics, factory integration tools, high speed identification of compounds, and measurement accuracy/stability without the need for calibration.

Features and benefits

- Configurable robust mobile cart system for gas analysis
- Single channel real-time gas analysis (1 sec – 1 min response)
- Compliant with US EPA Method 320 and ASTM D6348
- Automated QA/QC process for combined hardware solution through single MAX-Acquisition Software package
- Validated for ambient air and hot/wet emissions applications

Applications

- FTIR source testing
- Ambient air testing
- Continuous emissions testing
- Engine dyno testing
- Process analytical testing
- Sealed housing for evaporative determination (SHED) testing



MAX-iR Mobile Monitoring Solution shown with optional MAX-OXT Thermal Oxidizer Module

FTIR mobile monitoring specifications
Equipment

Analysis time	1 sec to 1 min (application dependent)
Sample gas temperature	Ambient up to 191 °C
Number of calibration gas ports	2
Calibration gas flow rate	0.2–10 L /min
Sample pump flow	4–10 L/min
Particulate filter efficiency	> 99.99% at 0.01 µm
Weight	116 kg (255 lbs) without MAX-OXT 130 kg (286 lbs) with MAX-OXT
Dimensions (W x H x D)	724 x 1175 x 915 mm 28.5 x 46.25 x 36 in Shelf open: 895 x 1175 x 915 mm 35.25 x 46.25 x 36 in

Gas requirements

Purge and zero gas	Nitrogen, ultra-high purity (UHP) grade or better, 20 psig
Valve actuation gas	Nitrogen or clean dry air (CDA), 80 psig

Facilities requirements

Environmental temperature	20–30 °C (59–88°F)
Environmental humidity	10–90% RH, non-condensing
Power	120 VAC, 50–60 Hz, 13A

Factory integration

Data outputs	Modbus TCP
Data inputs	1 analog input (4–20 mA)