

Robust . Reliable . Accurate

AOTF-NIR Gas Analyzer



- Accurate Detection and Measurement of Gases Based on Transmission Measurement Mode
- Brimrose Analytical Software - Snap32!
- Conducting Gas Analytical Testing and Inspection



Brimrose Corporation of America
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■ AOTF-NIR Gas Analyzer for Conducting Gas Analytical Testing and Inspection

The Luminar 7050 AOTF-NIR Gas Analyzer is built for conducting gas analytical testing and inspection that extends versatility from the laboratory to the production floor and to the field.

The Luminar 7050 utilizes Brimrose's high performance AOTF-NIR technology and allows an installation right into the production environment. The use of Luminar's transmission measurement mode allows for accurate detection and measurement of carbon monoxide, carbon dioxide, methane, moisture, ethane, propane as well as many other gases such as ammonia, hydrogen sulfide and more.

Brimrose offers this rugged solid-state gas analyzer in a variety of different configurations to meet the high demand of different industries and applications.

Brimrose spectrometers are ideally suited for solving the research, quality control and inspection needs of manufacturers providing a new cost-effective analytical tool that improves process troubleshooting, research, and Quality Assurance programs.



■ Key Features

- Dual-Beam, Pre-Aligned Lamp Assembly, InGaAs Detectors
- No Moving Parts
- Fast Scanning Speed - 16,000 Wavelengths per Second
- SNAP32! Brimrose Analytical Software with Brimrose MACRO Language
- NEMA 4X Miniature Stainless-Steel Integrated Enclosure

■ Real-time Applications

- Carbon dioxide
- Butane
- Methane
- Moisture
- Ethane
- Propane
- Additional gases

Typical Limit of Detection:

- 0.05% of CO2



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■ Technical Data Specifications

| Spectrometer Name | | Luminar 7050 AOTF-NIR Gas Analyzer |
|--|--|---|
| Spectral Range Options | | 1300-2500 nm |
| Measurement Modes | | Transmission |
| Spectral Resolution | | 2-10 nm |
| Wavelength Accuracy | | ± 0.5 nm |
| Wavelength Repeatability | | ± 0.01 nm over more than 5 years service |
| Wavelength Increment | | Software Selectable 1-10 nm |
| Ambient Light Rejection | | > 10 ⁶ |
| S/N at 70% Range | | < 30µabs in reflectance and transmission, for<5 seconds integration time reflectance not relevant |
| Wavelength Access Time | | < 66 µsec |
| Photometric Range | | 3.5 AU |
| Linearity | | Better than 0.15% |
| Signal Digitalization | | 16-bit A/D (1 part in 65,536) |
| Sampling Speed | | 16,000 wavelength/sec |
| Gas Cell Size | | Ø16 x 200 mm |
| Diagnostic | | 10 Built-in monitoring sensors |
| Power Requirements | | 12VDC, (24VDC special order), 90Watts, 110VAC 60Hz, 220VAC 50Hz |
| Enclosure | | 400 mm x 300 mm x 160 mm Stainless Steel NEMA 4X |
| Outputs | | PC Interface via Ethernet connection |
| Software Package | | Windows-based analytical software for data acquisition |
| <hr/> | | |
| Options: | | |
| ➤ Explosion-proof Versions ➤ Additional Gas Cell ➤ Micro-Pump for Lab ➤ Fitting ➤ Tubing | | |



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