



Luminar 7030

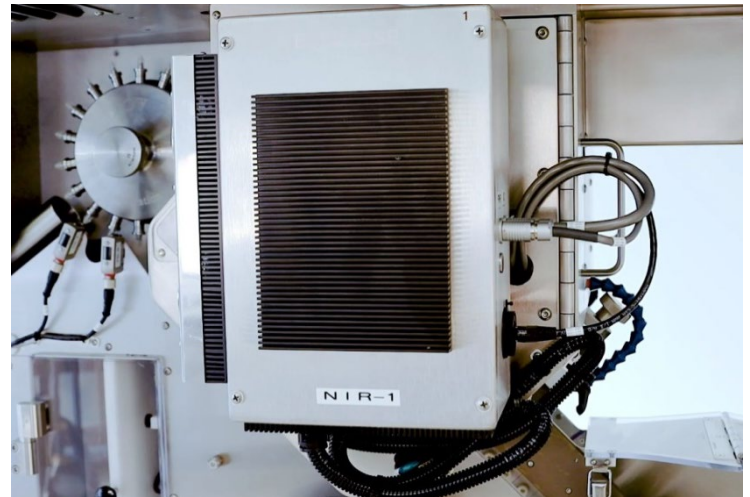
Free Space AOTF-NIR Spectrometer

Data Sheet

In-line & At-Line AOTF-NIR Spectrometer – Luminar 7030

The Brimrose Luminar 7030 AOTF-NIR Free Space Spectrometer is designed for in-line measurement in a production facility. The 7030 spectrometer has two enclosures. One enclosure contains the optics and is placed at the location of the product being analyzed. The 2nd enclosure contains the electronics and is connected with a 1-meter cable. The small enclosures allow for in-line mounting of the spectrometer in small spaces where the Luminar 4030 model might not fit well. The performance is the same.

The design and implementation is indicative of the innovative thinking of Brimrose engineers when tasked to provide flexibility for multiple customer scenarios and challenges.



Luminar 7030 Mounted to Laser Drilling

photo courtesy of Ackley Machine Corporation

Mounting Options

- Tri-clamp Mount
- Standard or Custom-Built Mounting Plates
- Lab Stand with Rotating Sample Cup

Key Features

- **Robust** – Built for In-Line and At-Line Monitoring; Extremely Fast (up to 10 measurements / second Typical)
- **Reliable** – Solid State; Immune to Vibration and Ambient Light; Install Anywhere
- **Accurate** – Real-Time Dual Beam Referencing; Real 1 or 2 nm Steps
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What is measured?

- Measure Fat, Moisture, and Protein Content in Food
- Blending Uniformity
- Fluidized Bed Drying
- Tablet Coating Inspection

AOTF-NIR Advantages

- **Solid State** – No Moving Parts
- **Faster** – Up to 10 measurements / second and can get up to 30 scans per second across the whole wavelength range (1100-2300 nm)
- **Sensitive** – higher resolution with excellent signal-to-noise ratio
- **Customized for Purpose** (ATEX / UL / IPxx)
- **Immune to Ambient Light & Vibration** – no need to block ambient light from the sample
- **Real-Time Dual-Beam Reference** – No Drifting, Excellent Wavelength Repeatability, No Need to Recalibrate The Device



Technical Specification

Spectral Range Options	850-1700 nm, 900-1800 nm, 1100-2300 nm (standard)
Wavelength Repeatability	± 0.01 nm
Spectral Resolution	2-10 nm
Wavelength Accuracy	± 0.5 nm
Sampling Speed	16,000 wavelength/sec
Ambient Light Rejection	> 10 ⁶
Installation Requirement	
Power Requirements	12VDC, (24VDC special order), 90Watts, 110VAC 60Hz, 220VAC 50Hz
Cooling Options	Fan-cooled, Vortex-cooled
Communication	Wireless, OPC UA, Modbus (Serial or TCP), I/O with 4-20mA, TCP/IP Ethernet
Accessories / Options	
<ul style="list-style-type: none">• Battery Operation• Proximity Sensor / Gravity Switch	

