

**Robust . Reliable . Accurate**

# Free Space Process AOTF-NIR Analyzer



- Non-contact, Non-destructive Measurements Based on Diffuse Reflectance Optics Mode
- Brimrose Analytical Software - Snap32!
- Real-time, On-line Analysis with Laboratory Accuracy



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Luminar 3030

## ■ Rugged Free Space NIR Process Analyzer for On-line Process Applications

Brimrose's solid-state Luminar 3030 AOTF-NIR Free Space Process Analyzer is built to be placed directly into the production line.

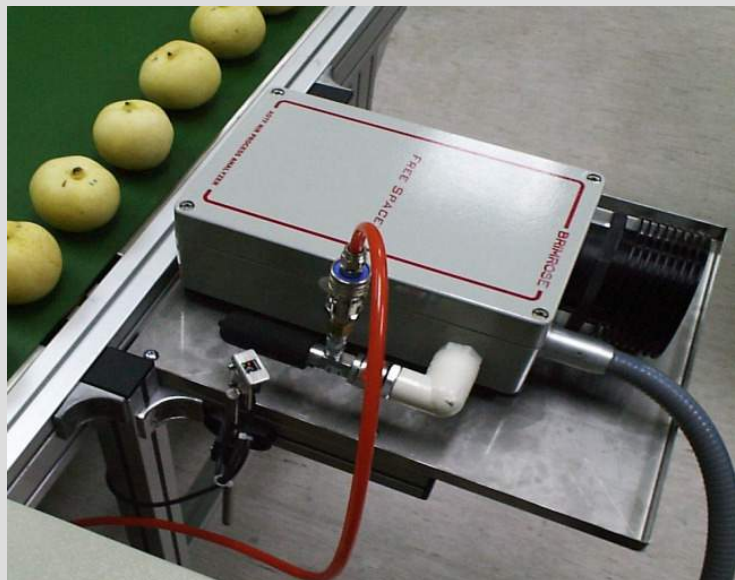
Its rugged design and solid-state technology allows an installation right into the production environment and eliminates the use of fiber optic lines. This high-speed NIR Analyzer is based on diffuse reflectance optics, and can be integrated in a vast variety of housings to match your process area classification.

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

The Luminar 3030 Free Space process analyzer meets all requirements and standards for on-line applications in the pharmaceutical industry and is built to work reliably even in the toughest environmental conditions. The integrated Luminar 3030 is insensitive to vibrations and ambient light and offers outstanding S/N ratio combined with ultra high speed scanning rates and makes it possible to analyze in real time, on-line and with laboratory accuracy.



Luminar 3030 Optical Module - Moving Vials Inspection Linked to Cap Color Reader



### ! Real-time Online Fruit Inspection and Sorting

#### ■ Key Features

- Dual Beam, Pre-aligned Lamp Assembly, InGaAs Detectors
- Fast Scanning Speed - 16,000 wavelengths/sec
- NEMA 4X Enclosure
- SNAP32! Brimrose Analytical Software with Brimrose MACRO Language

#### ■ Real-time Applications

- Pharmaceutical: 100% inspection of solids, pastes, creams and powders
- Agricultural/Food: on-line food analysis for fat, protein, moisture
- Polymer: in-site measurement of pellets, films, and coatings
- Textile: cotton/polyester ratio directly in the web
- Drying Process: direct placement on spray or fluid bed dryers
- Pulp & Paper: thickness and coating analysis



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■ Technical Data Specifications

Spectrometer Name	Luminar 3030 Free Space AOTF-NIR Process Analyzer
Spectral Range Options	600-1100 nm, 850-1700 nm, 900-1800 nm, 1100-2300 nm
Measurement Modes	Diffuse Reflection, (Transmission with an attachment)
Spectral Resolution	5-10 nm
Wavelength Accuracy	± 0.5 nm
Wavelength Repeatability	± 0.01 nm
Wavelength Increment	Software Selectable 1-10 nm
Ambient Light Rejection	> 10 <sup>6</sup>
Non-Linearity	0.1%
Signal Digitalization	16-bit A/D (1 part in 65,536)
Sampling Speed	16,000 wavelength/sec
Sampling Area	26 x 16 mm (Model 700), 9 x 5 mm (Model 701), 5 x 3 mm (Model 705)
Sampling Angle	25°
Process Control	Up to 16 A/D, 16 D/A Channels and 16 I/O Channels accessed via MACRO language, D/A outputs can be supplied as isolated 4-20 mA current loop outputs - Modbus capability (optional) (RS 422/485)
Diagnostic	10 Built-in monitoring sensors
Power Requirements	100-240 VAC, 50/60 Hz, 90 Watts
Software Package	Windows-based analytical software for data acquisition
	<b>Attachments:</b>
	700-23 For conversion to lab diffuse reflectance 700-25 For conversion to lab transmission measurement 700-26 Air-Flow Curtain 705-20 For transmission measurement



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