

# Luminar 3030 Free Space™ Analyzer

The **Luminar 3030 FreeSpace™ AOTF-NIR 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 solid-state analyzer in a variety of different configurations to meet the high demand of different industries and applications.

The **FreeSpace™** 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 **AOTF-NIR** technology 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.



- Insensitive to vibrations and ambient light
- Fast scanning rates up to 16,000 wavelength/sec
- Non-invasive, contactless measurement
- Superior S/N ratio across the entire spectral range
- Solid, pellet, powder and liquid samples

## Typical 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 - on-line

And much, much more.....

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<b>Specifications</b>	
<b>Luminar 3030</b>	<b>Free Space™ Analyzer</b>
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	Up to 16,000 wavelength/sec
Sampling Area	26 x 16mm (Model 700), 9 x 5 (Model 701), 5 x 3 (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	Windows-based analytical software for data acquisition
<b>Attachments:</b>	
<ul style="list-style-type: none"> <li>• <b>700-23</b> For conversion to lab diffuse reflectance</li> <li>• <b>700-25</b> For conversion to lab transmission measurement</li> <li>• <b>700-26</b> Air-Flow Curtain</li> <li>• <b>705-20</b> For transmission measurement</li> </ul>	

# BRIMROSE

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