

Robust . Reliable . Accurate

IP55 Miniature Stainless Steel Free Space Process Analyzer



- Non-contact, Non-destructive Measurements Based on Diffuse Reflectance Optics Mode
- Brimrose Analytical Software - Snap32!
- Electronic Controller Unit and Optical Module with IP55 Water Tight - Dust Tight Enclosure.



Brimrose Corporation of America

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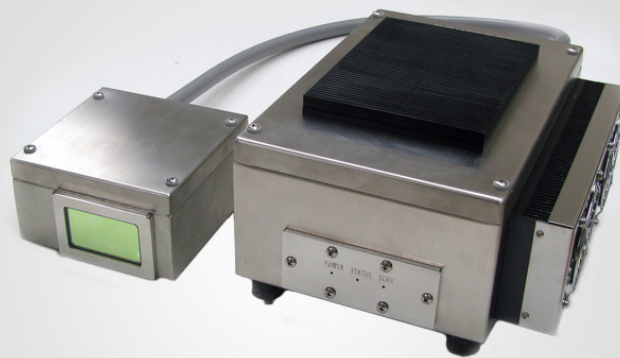
Luminar 7030

■ Miniature Free Space NIR Process Analyzer for On-line Process Applications

Brimrose's Luminar 7030-IP55 Miniature Stainless Steel FreeSpace Process 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 its miniature size allows implementation where space is tight, such as small vacuum dryers, pipes, fluid beds, etc. 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 needs. Electronic Controller Unit is in a stainless steel box, with IP55 water tight - dust tight enclosure. Optical module is in a stainless steel box, water tight, dust tight.

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



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Electronic Controller Unit and Optical Module with IP55 Water Tight - Dust Tight Enclosure.

■ Key Features

- Dual Beam, Pre-aligned Lamp Assembly, InGaAs Detectors
- Fast Scanning Speed - 16,000 wavelengths/sec
- SNAP32! Brimrose Analytical Software with Brimrose MACRO Language
- 6mm Diameter Sample Area at 55mm Sampling Distance
- NEMA 4X Miniature Stainless Steel Integrated Enclosure

■ Real-time Applications

- **Blender Control:** Real-time homogeneity monitoring and blending control process
- **Pharmaceutical:** 100% inspection of solids, gels, liquids and powders
- **Agricultural/Food:** On-line food analysis for fat, protein, moisture, starch, etc.
- **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
- **Tobacco:** Measurement of nicotine, sugars, potassium, etc.



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■ Technical Data Specifications

Spectrometer Name	Luminar 7030-IP55 Miniature FreeSpace Process Analyzer
Spectral Range Options	850-1700 nm, 900-1800 nm, 1100-2300 nm
Measurement Modes	Diffuse Reflection
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
Vibration Immunity	Blenders, production machinery, conveyor belts
S/N at 70% Range	< 30µabs in reflectance and transmission, for <5 seconds integration time
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
Sampling Area	Ø6 mm
Sampling Distance	55 mm
Diagnostic	10 Built-in monitoring sensors
Power Requirements	12VDC, (24VDC special order), 90Watts, 110VAC 60Hz, 220VAC 50Hz
Enclosure	300 mm x 256 mm x 145 mm Stainless Steel NEMA 4X; Explosion-proof options available
Outputs	PC Interface via Ethernet connection
Software Package	Windows-based analytical software for data acquisition
Options:	Accessories:
<ul style="list-style-type: none"> ➤ Input/Output (I/O) Capability ➤ "SEALED" Battery Operation ➤ Vortex Cooler with Heat Exchanger ➤ Wireless Communication ➤ Proximity Sensor / Gravity Switch 	731-S: Stand with Rotating cup



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