

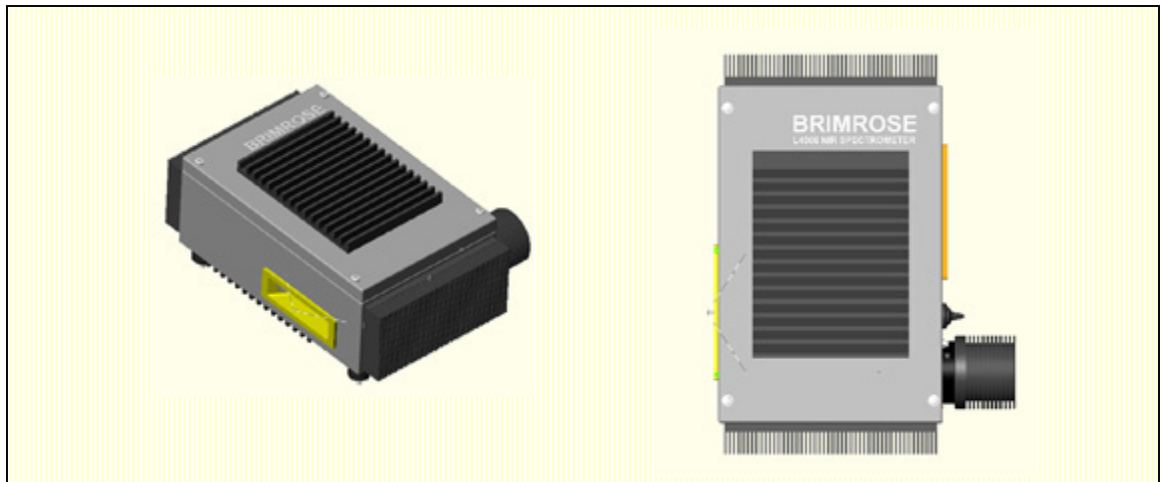
# Luminar 4020

## ThinFilm Analyzer

**BRIMROSE Acousto-Optic Tunable Filter (AOTF) Film & Thin Film Analyzers** are designed for measuring chemical and physical properties on a wide range of substrates and coatings. Applications include thickness of organic lacquer or lubricant on metallic foils, tin-plate, sheet steel, metalized polymers and similar products. Coating weight of adhesive and residual solvent are also routinely measured with this new high speed on-line analyzer, which can either be mounted on a traveler and scan across the web or measures statically.

**BRIMROSE Luminar** systems are non-contact solid state sensors with a compact, rugged design, providing rapid full spectrum scanning for demanding industrial use. A large variety of options and system configurations ensures a **BRIMROSE** solution for a wide range of applications.

The **Luminar™ 4020** is totally insensitive to ambient light, which eases installation requirements in the production environment. A novel optical design eliminates the interference fringes making the measurement of thin films now possible using this patented on-line spectrometer.



### Typical Applications:

#### Coating Material:

Acrylic, Epoxy, Epoxy-Phenolic, Epoxy-Urea, Multi-layer Films and Tapes, Nitrocellulose, Polyesters, Polystyrene, Vinyl and more

#### Substrates:

Aluminum Foil, Copper Clad Sheet, Metalized Polymer Films, Tin Plate, Polymer Films and more

Multiple Layers can be measured individually. Eliminate the need to measure thickness of substrate for accurate coating weight.

And much, much more...

[www.brimrose.com](http://www.brimrose.com)

Specifications	
<b>Luminar 4020</b>	<b>On-Line ThinFilm Analyzer</b>
Spectral Range Options	600-1100 nm, 850-1700 nm, 900-1800 nm, 1100-2300 nm
Measurement Modes	Transmission
Spectral Resolution	2-10 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>
Signal Digitalization	16-bit A/D (1 part in 65,536)
Non-Linearity	0.1%
Sampling Speed	Up to 16,000 wavelength/sec
Sampling Area	Ø10 mm
Working Distance	6 mm ± 0.5 mm (from reflecting surface to window flange)
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
Thickness Range	Typical 0-15 µm (standard) (above 15 µm it is possible to use models 4030 and 7030)
Permissible Sheet Flutter	±5 mm and ±2 degrees
Power Requirements	24 VDC, 80 Watts or 100-240 VAC, 50/60 Hz, 90 Watts
Software	Windows based analytical software for data acquisition

# BRIMROSE

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