



Flame-NIR

The Power of NIR in the Palm of Your Hand

The Flame-NIR spectrometer from Ocean Optics harnesses the power of near infrared spectroscopy in a compact, affordable instrument. Flame-NIR combines the small size of its optical bench with a high performance, uncooled InGaAs array detector for spectral response within 900-1700 nm. The spectrometer is ideal for applications in food integrity, biomedical sciences and pharmaceuticals production.





At a Glance

Range: 900-1700 nm (detector)
950-1650 nm (preconfigured)

Resolution: ~10.0 nm
(FWHM, 25µm slit)

SNR: 6000:1

Dynamic range: 6000:1
(single acquisition)

Thermal stability: 0.08 nm/°C
(over 670 nm range)

Scan rate (maximum): ~400 Hz*

Power: 5V USB

Size: 89.1 mm x 63.3 mm x 31.9 mm
(excluding feet)

Weight: 265 g

*When used with a standard,
non-real time computer OS.



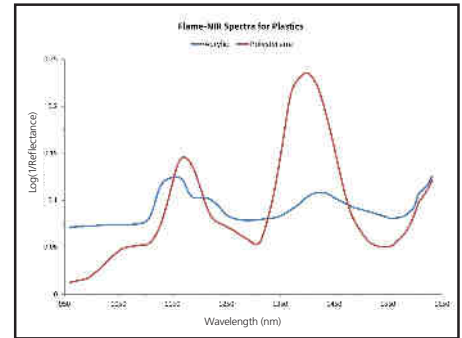
Learn more online at
www.oceanoptics.com

Contact an Ocean Optics
Application Scientist
for details and pricing

Versatile, Affordable NIR for Food, Pharma and More

NIR spectroscopy is a powerful method for identifying, classifying and characterizing an extensive range of samples. NIR spectroscopy is fast, non-destructive and requires little or no sample preparation.

Flame-NIR operation is as simple as plugging in the micro-USB connector. When combined with our light sources and sampling accessories, the Flame-NIR is ideal for reflectance, irradiance and transmission measurements:



Flame-NIR detects polymers within a mixed stream of plastic materials.

Food & Agriculture	<ul style="list-style-type: none"> Freshness and sweetness of fruits and vegetables Fat and protein content of meat Quality parameters of seeds and grains
Life Sciences & Pharmaceuticals	<ul style="list-style-type: none"> Identification of pharmaceutical ingredients Portable diagnostics for blood glucose and blood flow
Light & Laser	<ul style="list-style-type: none"> Measurement of laser center wavelength and stability NIR irradiance and background monitoring in and out of the lab
Chemical & Commodity Manufacturing	<ul style="list-style-type: none"> Chemometric modeling for QC in hydrocarbons extraction and processing Identification of various types and colors of plastics in recycling

Flame-NIR Features and Benefits

Features	Benefits
Small yet rugged design	Its small size -- just 89.1 mm x 63.3 mm x 31.9 mm -- makes Flame-NIR ideal for integrating into portable and handheld systems. With no moving parts, the spectrometer holds up well in demanding environments.
High sensitivity	Despite a compact footprint, the Flame-NIR optical bench and InGaAs detector deliver superior sensitivity compared with other miniature NIR designs.
User-interchangeable slit design	Take control with interchangeable slits that allow users to vary spectrometer throughput and resolution in minutes.
Low unit to unit variability	Precision alignment and assembly techniques have reduced unit to unit variance in almost every aspect, including uncalibrated sensitivity.
Low power	Drawing <250 mA at 5V, Flame-NIR can be powered almost anywhere -- including in OEM devices and in industrial process control environments.



www.oceanoptics.com | info@oceanoptics.com

US +1 727-733-2447 EUROPE +31 26-3190500 ASIA +86 21-6295-6600