Diffuse Reflection NIR Analyzer - Near Infrared Spectrophotometer - 900-2500 nm - Cooled InGaAs

Model **MSSP-LIF450SWISS** | Brand **Master Science**








The Master Science Diffuse Reflection NIR Analyzer scans solid and granular samples from 900 to 2500 nm with a cooled InGaAs detector. The sample is poured into a cup and placed on the open platform; no reagents or pre-treatment are involved.

KEY HIGHLIGHTS

- One-tap measurement
- No chemicals
- Quick consumable changes
- Controlled access
- Easy to keep clean

AT A GLANCE

900 to 2500 nm WAVELENGTH RANGE	**12 nm** SPECTRAL BANDWIDTH
±0.2 nm WAVELENGTH ACCURACY	**≤0.05 nm** WAVELENGTH REPEATABILITY

Request a Quotation
Contact us for pricing, configuration options and delivery details.

support@themsci.com
www.themsci.com

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Overview

Moisture, fat, protein, amino acids and other indicators are reported together within about a minute. An integrating sphere, a large sampling spot and a rotating cup holder keep results repeatable when the material is uneven.

Key Benefits

One-tap measurement
the Master Science Diffuse Reflection NIR Analyzer takes its background automatically.

No chemicals
samples are measured directly.

Quick consumable changes
light source and desiccant replaced without opening the instrument.

Controlled access
user management with operator permissions.

Easy to keep clean
open working platform.

For liquid samples, see the Master Science liquid NIR spectrophotometer.

Technical Specifications

GENERAL

Brand	Master Science
Model Number	MSSP-LIF450SWISS
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Measurement Mode	Diffuse reflection sample cell
Analysis Time	1 min, adjustable
Calibration	MPLS modified least squares regression; DPLS spectrum identification and qualitative analysis
Output	USB 2.0
Power Supply	90-250 V, 50 or 60 Hz

OPTICAL PERFORMANCE

Wavelength Range	**900 to 2500 nm**
Spectral Bandwidth	12 nm
Wavelength Accuracy	**±0.2 nm**
Wavelength Repeatability	**≤0.05 nm**
Stray Light	≤0.1%
Absorbance Noise	≤0.0005 Abs
Detector	Cooled InGaAs
Downtime for lamp changes	user-replaceable light source.

ENVIRONMENT

Ambient Temperature	5 to 35 °C
Ambient Humidity	5 to 85% RH

DIMENSIONS & WEIGHT

Instrument Dimensions (W×D×H)	540 × 380 × 220 mm
Package Dimensions (W×D×H)	800 × 680 × 580 mm
Net / Gross Weight	18 kg / 55 kg

COMMON PROBLEMS AND HOW THIS ANALYZER HELPS

Common Problems and How This Analyzer Helps	How the Master Science Diffuse Reflection NIR Analyzer simplifies composition testing:
Operator-dependent results	built-in background and single-tap operation.
Uneven granular samples	rotating cup and large spot.
Slow reference methods	multi-component result in about a minute.

Applications

The Master Science Diffuse Reflection NIR Analyzer is used for: Moisture, fat and protein determination Amino acid indicators Particles, powders, liquids and films

Optics

- Integrating sphere diffuse reflection system
- Built-in PTFE reference module
- Polystyrene wavelength standard film with automatic monitoring

Sampling

- Large sampling spot
- Sample rotating table
- Sample cups and accessories for particles, powders, liquids and films

Software

- Data collection, pre-processing and evaluation
- User settings and user management
- Temperature and humidity stored in each spectrum file
- Model transfer between instruments