

NIRS™ DS2500

The dedicated analyser providing full confidence in dairy powder analysis



ANALYTICS BEYOND MEASURE

The NIRS™ DS2500 provides NIR analysis of dairy powders with exceptional accuracy and in compliance with IDF 201 guidelines. Designed for use in the laboratory or at the production line, makes it ideal for routine production control and monitoring of final product quality.

More yield with reduced energy

Accurate routine analysis helps you to produce closer to targets and avoid rework. For example, getting the moisture concentration just 0.1% closer to target, can save you Euro 50,000 per annum at typical production rates.

Optimise your NIR management with FOSS digital services

Ensure consistent performance of all instruments in your network. Make adjustments on instrument calibration and configuration remotely. Protect your database and calibration models with automatic back up of data. Remote instrument monitoring allows FOSS NIR experts to troubleshoot and diagnose performance issues without interrupting operations.

At-line control makes quality a matter of routine

The NIRS DS2500 is easy to use, thereby ensuring low risk of operator error. Just place the sample in the sample cup, push the button and get results in less than a minute.

Sample type

Direct measurements of dairy powders

Parameters

FOSS global calibrations include: Fat, protein, moisture, ash, lactose and acidity.

Technology

NIR monochromator across the full spectral range from 400 to 2500 nm. Measuring mode: Reflectance or transmittance (for liquids).

Factory standardisation ensures seamless transfer of calibrations.

Specifications

Feature	Specification
Dimensions (w x h x d)	375 x 300 x 490 mm
Weight	27 kg
Degree of protection	IP 65
Measurement mode	Reflectance or transmittance (for liquids)
Wavelength range	400 - 2500 nm
Detector	Silicon (400 - 1100 nm), lead sulfide (1100 - 2500 nm)
Optical bandwidth	8.75 ±0.1 nm
Spectral resolution	0.5 nm
Number of data points	4200
Absorbance range	Up to 2 AU
Analysis time	<1 minute*
Wavelength accuracy	<0.05 nm
Wavelength precision (Based on a single analyser)	<0.005 nm
Wavelength precision instrument-to-instrument (Based on a group of analysers)	<0.02 nm
Photometric noise**	400 - 700 nm < 50 micro au 700 - 2500 nm < 20 micro au

* Adjustable

** Noise = RMS for 10 co-added, 10 second scans

Installation requirements

Voltage supply	100-240 V AC *, frequency 50-60 Hz, Class 1, protective earth
Ambient temperature	5 - 40°C
Storage temperature	-20 to 70°C
Ambient humidity	< 93% RH
Mechanical environment	Stationary during use
EMC environment	Laboratory use, Industry requirements

* Mains supply voltage fluctuations not exceeding ±10% of the rated voltage.

Instrument management	
Networking software	FossManager™

FOSS

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