

NIRS™ DS3 A

A complete solution for better lab flow



ANALYTICS BEYOND MEASURE

The NIRS™ DS3 A offers renowned FOSS accuracy and industry leading analytics combined with automated sample handling and high throughput in one solution. The NIRS™ DS3 A is always ready, delivers fast and accurate analysis of samples, making it ideal for sample preparation, quality control and adding more revenue.

Rapid, cost-effective, and easy-to-use analytics

Elevate your operations with rapid, cost-effective, and non-destructible NIR analysis that requires minimal training. Automate your operations with the simple, robust autosampler module that is easy to maintain with its gravity-based design, and a small footprint.

Increase throughput and reduce turn-around-time

Reduce manual operations, optimize your workflow and increase walk away time with automated sample loading and detachable magazines that make it easy to transport samples between work stations.

Avoid human error with trustworthy and traceable results

Improve data quality and reduce errors with superior measurement quality and intelligent features like sample registration, barcode scanning, and automated sample handling. Scheduled diagnostics and digital services ensure reliable performance, backed by global support.

Sample types

Direct measurements of a wide range of food and feed matrices.

Parameters

FOSS global calibrations include: Fat, protein, moisture, ash, starch and fibre.

Technology

NIR monochromator across the full spectral range from 400 to 2500 nm. Measuring mode: Reflectance

Factory standardisation ensures seamless transfer of calibrations.

Specifications

NIRS™ DS3 A

Feature	Specification
Dimensions (w x d x h)	375 x 490 x 300 mm
Weight	27 kg
Degree of protection	IP 65
Measurement mode	Reflectance and transreflectance* (for liquids)
Wavelength range	400 - 2500 nm
Detector	Silicon (400 - 1100 nm), Lead Sulphide, PbS (1100 - 2500 nm)
Optical bandwidth	8.75 ± 0.10 nm
Data resolution	0.5 nm
Number of data points	4200
Number of subsamples	Default: 7 for small cup; 8 for large cup
Self test	12 minutes (variable)
Analysis time	<1 minute for 32 scans (8 subsamples, 4 scans per subsample)

*Transflectance only possible with manual operation.

Autosampler	Autosampler magazine	Autosampler collection station	Autosampler loading station
Dimensions (W x D x H)	115 x 105 x 692 mm	469 x 50 x 655 mm	325 x 300 x 130 mm
Weight	1.22 kg	2.04 kg	1.30 kg

Note: 20 sample cups are included in the total solution.

Installation requirements

NIRS™ DS3 A	
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.

Optional services

Digital services	Foss IQX™
Care solutions	FossCare™, SmartCare™