NIRS™ DS2500 F

The dedicated analyser providing full confidence in feed and raw materials

The NIRS™ DS2500 F provides NIR analysis of feed with exceptional accuracy. Designed for use in the laboratory or feed mill, the NIRS DS2500 F is ideal for routine control.

Control feed and petfood quality
Analyse all incoming and outgoing deliveries with one simple analysis in less than a minute and increase your sampling frequency without extra cost. Get immediate results that enable you to stop poor quality products at the gate.

Optimise your NIR management with networking software
FossManager™ networking software makes it possible to make immediate adjustments on instrument calibration and configuration remotely. Ensure consistent performance of all instruments in your network. Protect your database and calibration models with automatic back up of data.

Save time and money with innovative usability features
Easy sample preparation and intuitive user interface means that anyone can perform analysis with a minimum of training. Remote instrument monitoring allows FOSS NIR experts to troubleshoot and diagnose performance issues without interrupting operations.

Sample type
Direct measurements of feed and forage samples in ground or unground form, for example direct measurement of pellets

Parameters
FOSS global calibrations include: Fat, protein, moisture, ash, starch and crude fiber, as well as NDF and ADF for forage.
Access to relevant reference analysis makes it possible to develop additional calibrations for parameters such as amino acids and digestibility

Technology
NIR monochromator across the full spectral range from 850 to 2500 nm.

Factory standardisation ensures seamless transfer of calibrations

Specifications

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 or transflectance (for liquids)
Wavelength range	850 - 2500 nm
Detector	Silicon (850 - 1100 nm), lead sulfide (1100 - 2500 nm)
Optical bandwidth	8.75 ±0.1 nm
Spectral resolution	0.5 nm
Number of data points	3300
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**	850 - 2500 nm < 20 micro au

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

Installation requirements

NIRS™ DS2500 F	
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™