

InfraLUM FT-12



FT NIR analyzer



InfraLUM FT-12 NIR analyzer performs express analysis of various agricultural and food products, allowing you to simultaneously determine main parameters and components with the highest possible accuracy. The analysis is non-destructive and usually does not require any sample preparation.

This instrument can significantly reduce analysis cost compared to common wet-chemical methods. The FT spectroscopy technique ensures that InfraLUM FT-12 performs a very precise and reproducible analysis.

Lumex Instruments offers another InfraLUM FT-12 WholeGrain model with the automatic cell filling for the analysis of whole grains.

THE MAIN APPLICATION AREAS

Rapid analysis of quality parameters (protein, moisture, gluten, etc.) of cereals (wheat, barley, corn, etc.)

Monitoring of flour quality at all stages of the milling process

Control of quality parameters of

- milk and milk products (cheese, curd, yoghurt, milk powder, and others);
- vegetable oils, oilseeds;
- meat and meat products;
- fish and seafood;
- vegetables and fruits;
- feed and mixed fodders;
- wines, etc.

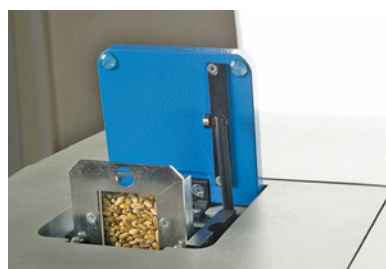
FEATURES AND ADVANTAGES

- Simultaneous determination of all parameters of interest within 1.5 minutes
- Highest accuracy of results provided by the use of Fourier transform NIR spectrometry
- Transmission spectrum which is more informative compared to the reflectance spectrum
- Whole grain analysis with no sample preparation: no milling or grinding
- No reagents or consumables required
- Waterproof and dustproof optical compartment of the interferometer
- Open calibration models (the possibility of extending existing calibrations)
- Dedicated user-friendly SpectraLUM/PRO software compliant with FDA 21 CFR part 11
- IQ/OQ protocols

CALIBRATIONS

| | |
|--|---|
| Cereals | protein, moisture, fat, fiber, starch |
| Oilseeds and legumes | protein, moisture, fat |
| Meal, oilcake, etc. | protein, moisture, oil content, fiber, ash, phosphorus |
| Flour | protein, moisture, whiteness, ash |
| Feed, feed raw materials, and fodder additives | protein, moisture, oil content, fiber, ash, phosphorus, amino acids |
| Meat, fish | protein, moisture, fat |
| Dairy products | protein, fat, lactose, acidity, dry matter |
| Sauces | protein, fat, dry matter, acidity |
| Wine | alcohol, sugars, acids, total sulfur dioxide, modified extract, pH |
| Vegetable oil | phosphorus-containing substances, acidity index, moisture |
| and many more | |

OPERATION WITH THE INSTRUMENT



Fill the sample cell, place it into InfraLUM FT-12, choose the analyzed product in the menu and start the measurement.



Fill the grain into the shaft of InfraLUM FT-12 WholeGrain, choose the analyzed product in the menu and start the measurement.

| # | Property / constituent | Result |
|---|------------------------|--------|
| 1 | Protein | 12,8 % |
| 2 | Moisture | 11,8 % |
| 3 | Gluten | 20,2 % |

Result obtained in 1.5 minutes.

SPECIFICATIONS

| | InfraLUM FT-12 | InfraLUM FT-12 WholeGrain |
|---------------------|---|---------------------------|
| Analysis time | 1.5 min | |
| Sample volume | 50 ml | 500 ml |
| Spectral range | 13200–8700 cm ⁻¹ (760–1150 nm) | |
| Resolution | 8, 16, 32, 64 cm ⁻¹ | |
| Power supply | 110/220 V, 50/60 Hz, 110 W | |
| Dimensions / weight | 530×450×380 mm / 32 kg | 530×485×495 mm / 32 kg |

SERVICES

Installation and commissioning of Lumex Instruments' NIR analyzers can be carried out at a customer site by our service engineers or by certified distributor service engineers.

WARRANTY

InfraLUM FT-12 analyzer s is covered by a full 1-year warranty.



Find your local Lumex Instruments distributor:
www.lumexinstruments.com | sales@lumexinstruments.com