	Result	
1 Protein	12,8	%
2 Moisture	11,8	%
3 Gluten	20,2	%

NIR analyzers
InfraLUM FT-12 and
InfraLUM FT-12 WholeGrain

For the total grain, oilseeds & feed quality control

- Rapid analysis of grain quality parameters (determination of protein, moisture, gluten content, glassiness and other parameters of wheat)

- Determination of oil content, protein and other quality parameters of interest in cereal grains and oilseeds, and processed products

- Analysis results are obtained within 1.5 minutes, no reagents required

NIR ANALYZERS INFRALUM FT-12 AND INFRALUM FT-12 WHOLEGRAIN ARE COST-EFFECTIVE INSTRUMENTS FOR MONITORING THE GRAIN QUALITY PARAMETERS

Process inspection of whole grains at all stages in the agricultural chain

GRAIN ELEVATORS AND GRAIN TERMINALS

NIR Analyzers InfraLUM FT-12 and InfraLUM FT-12 WholeGrain provide incoming grain quality control in each truck for grain storage and bulk handling according to prescribed quality parameters. The determination of the grain quality in each truck reduces the risk of inadequate grain placing in a grain silo and makes grain quality adulteration less probable.

The use of NIR analyzers makes it possible to reduce the downtime of the grain delivery trucks in queue during harvest campaign.

OILSEED PROCESSING PLANTS

InfraLUM FT-12 provides the determination of oil content in a wide variety of oilseeds in each lot. The quality control of pressed oil and byproducts (oilseed meal, cake) may be done with the same instrument.

GRAIN TRADING COMPANIES

The use of NIR analyzers equipped with unified corporate calibration software provides the integrity of the quality assurance testing at all company's facilities.

FEED PRODUCTION

InfraLUM FT-12 provides quality control of ingredients of the feed and final product

Advantages

- Simultaneous determination of all the parameters of interest within 1.5 minutes.

- The highest accuracy of measurements provided by the use of FTNIR spectrometry.

- Rapid whole grain analysis with no sample preparation — no milling or grinding.

- No reagents or consumables required.

- Easy to operate.

- Open calibration models (the possibility of extending existing calibrations: expand their range and accuracy).

- Capability of regional (corporate) networking with unified calibrations.

- Capability of extending the range of sample types and parameters of interest.

- Full service at your territory.

- State-of-the-art user friendly software.

Operation

The analyzer is operated by the licensed software package SpectraLum/PRO (Certificate 990592). This multilingual software provides the analysis of samples automatically saving all the results and allows for addition and development of customized calibration models.

Methods

Lumex offers developed calibrations for a number of all the agricultural/food product samples and parameters/constituents: barley, corn, rice, soya, rye, oilseeds, wheat flour, bran, meal, etc.

MAIN APPLICATION EXAMPLES

		InfraLUM FT-12	InfraLUM FT-12 WholeGrain
Wheat grains	Protein, moisture, gluten, fat, fiber, glassiness	•	•
Wheat flour	Protein, moisture, gluten, ash, whiteness	•	
Corn	Moisture, protein, oil, fiber, starch	•	•
Barley	Protein, moisture, fiber	•	•
Soybeans	Moisture, protein, oil, fiber	•	•
Soya flour	Moisture, protein, oil, fiber	•	
Rapeseed	Moisture, oil, protein, erucic acid, glucosinolates	•	•
Oilseeds	Oil content, moisture, protein	•	
Sunflower oil	Phosphorus content	•	
Rye (grains)	Moisture, starch, protein, fiber, ash	•	•
Rye flour	Moisture, ash	•	
Hay, haylage	Protein, moisture, fiber, fat	•	
Compound feed	Protein, moisture, fat, ash, fiber	•	
Oats	Protein, moisture, fiber	•	•
Triticale	Protein, moisture, fiber	•	•
Peas	Protein, moisture	•	•
Fish flour	Protein, moisture, fat, phosphorus, ash	•	
Yeast	Protein, Barnstein protein, moisture	•	

SPECIFICATIONS

	InfraLUM FT-12	InfraLUM FT-12 WholeGrain
Measuring 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}	
Dimensions	530x450x380 mm	530x485x495 mm
weight	32 kg	
Power consumption	110 W	
Power requirements	~110/220 Vac, 60/50 Hz	
Verification	Once a year	

RECOMMENDED DELIVERY SET AND THE TERMS OF INSTALLATION

InfraLUM FT-12	InfraLUM FT-12 WholeGrain
NIR analyzer InfraLUM FT–12	NIR analyzer InfraLUM FT–12 WholeGrain
Set of measuring cells and calibration databases (in accordance with a list of parameters of interest)	Calibration databases (in accordance with a list of parameters of interest)
Industrial computer with a touch screen or personal computer with Windows® OS, CD–ROM, 2 free USB ports	
Installation/commissioning including personnel training at the Customer's site	

InfraLUM FT-12

NIR analyzer InfraLUM FT-12 is a new versatile instrument that provides analyses of not only wheat and other cereal crops but also of oil–seeds, flour, compound feed raw materials, hay, haylage, fish flour, yeast and mineral fertilizers.

NIR analyzer InfraLUM FT-12 shows high-performance in rapid analysis of other food products and raw material for their production, such as minced meat, raw milk and dry milk, curds, cottage cheese, etc.

It is possible to extend the list of objects and parameters of interest.

InfraLUM FT-12 WholeGrain

NIR analyzer InfraLUM FT-12 WholeGrain is a whole grain analyzer, intended specifically to cope with routine tasks of whole grain analysis.

Specific features:

- Automatic filling the sample into cell provides high-precision result of analysis.

- Automatic adjustment of the cell optical path length according to the analyzed product. No need to choose the cell before analysis.

- Automatic monitoring of grain and ambient temperature.
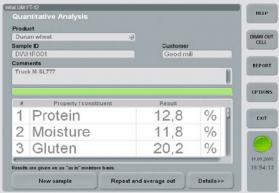
OPERATION WITH THE INSTRUMENT

1 Fill the sample cell, choose the analyzed product in the menu and start the measurement.

1 Fill the grain into the shaft, choose the analyzed product in the menu and start the measurement.

2 Result obtained in 1.5 minutes.