

For Sales & Service:
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Infratec™ 1241 Grain Analyzer



Infratec™ 1241 Grain Analyzer for automated, fast, accurate analysis of grain and flour quality parameters.

Features and Benefits

- Near Infrared Transmittance (NIT) eliminating sample preparation
- Ready-to-use calibrations (ANN) accuracy
- Quality assurance system for confidence in trade
- Truly transferable calibrations (ANN) for low operating cost
- Automatic multigrain cell for ease of use
- Independent of sample temperature for accuracy
- Long term stability of calibrations for low operating cost
- Capability for high moisture samples for wide range of applications
- Wavelength, 570 - 1100 nm, for measurement of colour
- Optional modules for expanded capability
- Datalogger / Datalink for easy transfer of results to LIMS
- Remote control for automated analysis

Infratec™ 1241 Grain Analyzer

The Infratec™ Grain Analyzer is a dedicated whole grain analyzer which capabilities can be expanded with optional modules, Volume Weight- ; Sample Transport- and Flour Modules. The new Infratec 1241 has a wavelength range of 570 - 1100 nm to allow for colour measurements. All modules can be installed in one unit – just select the application and run your samples. It is the solution for all steps in the agricultural chain, from crop management, grain trading, and grain processing to flour production. Analyze quality parameters such as protein, moisture, starch, oil, volume weight, colour etc. with high accuracy.

The Infratec 1241 Grain Analyzer can be used as a stand-alone or as a networked unit. A FOSS network is an excellent way of obtaining quality assurance, reliability and confidence in grain trading as all instruments show accurate and identical results independent of operator and location.

The Infratec 1241 Grain Analyzer is equipped with a multigrain cell having automatically variable path length. This makes it possible to analyze commodities from rapeseed to wheat to corn, without any demand on the operator.

Transfer of data between instrument and LIMS systems as well as remote control of the unit is facilitated by Datalogger and Datalink software packages.

Applications and calibration techniques

Infratec analyzers have become the most widely used system in grain quality control due to its performance, i.e. a combination of instrumentation and calibrations. FOSS introduction of ANN (Artificial Neural Network) calibration technology have revolutionized grain testing by delivering simplicity of use in combination with unsurpassed accuracy. FOSS global ANN calibration models are today used by all major grain producing countries. FOSS largest ANN model contains 50 000 reference data sets giving stable, transferable calibrations and accurate analytical results. Applications are available for a wide range of commodities and parameters. As a complement, PLS (Partial Least Squares) is also used. Select from our list of global and local calibrations for quality testing of rice, corn, soybeans, wheat, barley, oats, rye, rapeseed, flour, beer, whisky etc.

<p>System Description: Infratec™ 1241 Grain Analyzer 220-240V/110-120V, 50-60Hz</p> <p>A selection of ready to use calibrations Small Grain – Wheat, durum, barley, oats, rye & triticale (protein, moisture & other parameters) Rapeseed/Canola (moisture and oil) Corn and Soybeans (protein, moisture, oil and starch) Rice – Rough, brown & milled (protein and moisture)</p>	<p>Support Software Infratec™ File Tool, 1241 WinISI™ III, Calibration Development Software ODIN, Application Model Maker Infratec Scan Predictor Infratec DataLogger (included with instrument) FOSS DataLink</p> <p><i>For support and administration of Infratec systems operated in networks contact FOSS Analytical for further information.</i></p>
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<p>Optional Modules Flour Module Test Weight Module Sample Transport Module</p>
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Operation Data:			
Operating Programs		Path length:	Variable cell automatically controlled from 6-33 mm
Software:	Menu driven	Result report:	Presented on the display as default. Can be sent to PC/LIMS and the printer port
Regression programs:	ANN (Artificial Neural Network); PLS (Partial Least Squares)	Outlier function:	Warnings and options for the presentation of the result
No. of subsample	1 - 20		
Sample handling and result presentation:			
Analysis time:	40 sec. for 7 subsamples 50 sec. for 10 subsamples		

Technical data:		Interface:	
Voltage:	220-240V 50-60Hz or 110-120V 50-60Hz	Printer:	25 pins parallel port
Rated current:	1.0A (110-120V) / 0.5A (220-240V)	Modem:	9 pins serial port
Dimensions:	W × D × H – 500 × 570 × 375 mm	External PC:	9 pins serial port
	Weight 31 kg	LAN:	RJ45
Monochromator:	Scanning	Keyboard/Barcode:	PS/2
Wavelength range:	570 - 1100 nm	USB Ports:	2 pcs
Optical bandwidth:	7 nm	Remote I/O:	15-pin High Density DSUB
Number of data points/scan:	265	Diagnostics:	Self tests for internal communication, monochromator and detector (offset, gain and noise)
Mode:	Transmittance	System protection:	Dust and humidity protected
Light source:	Tungsten halogen lamp		
Detector:	Silicon		
Storage Media:	Flash disk, USB memory stick		
Display:	640 × 480 TFT LCD		

PATENTED METHOD - US PATENTS; US 4,944,589 AND EUROPEAN PATENTS; EP 0 320 477 B1, 8704886-4.

FOSS

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