



*Infratec 1241 Grain Analyzer for automated, fast, accurate analysis of grain quality parameters.*

## Features

- Near Infrared Transmittance (NIT)
- Ready-to-use calibrations
- Network capability
- Truly transferable calibrations
- Automatic multigrain cell
- Independent of sample and ambient temperature
- Long term stability of calibrations
- No sample preparation
- Handles high moisture samples
- Dust and humidity protected
- Expandable with optional modules

## Infratec® 1241 Grain Analyzer

The Infratec Grain Analyzer represents a new generation of whole grain analysers which capabilities can be expanded with optional modules like Colour- ; Volume Weight- ; Sample Transport- and Flour Modules. All modules can be installed simultaneously – just select application in the application menu and run your samples. It is the solution for all steps in the agricultural chain, from crop management, grain trading, grain processing to flour production. Analyse quality parameters such as

protein, moisture, starch, oil, volume weight, colour etc. with high accuracy.

The Infratec 1241 Grain Analyzer is designed to be used as a stand-alone unit or a network unit. A network is an excellent way of securing 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 analyse commodities from rapeseed to wheat to corn, without any manual changes.

## Applications and calibration techniques

When trading grain, Infratec analysers are at present the most commonly used system to determine the value of the grain. Today there are ready-to-use applications available for many commodities. This is possible, due the ANN (Artificial Neural Network) calibration technique. ANN is capable of handling large data sets giving stable, transferable calibrations and accurate analytical results. 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 etc.

**Ordering Information\*:**

1241-001 Infratec 1241 Grain Analyzer  
220-240V/110-120V, 50-60Hz

**A selection of ready to use calibrations**

10010062 Small Grain (protein and moisture)  
10010063 Rapeseed (moisture and oil)  
10010064 Corn and Soybeans (protein, moisture, oil and starch)  
10010065 Rice (moisture and amylose)  
10010066 Paddy Rice (moisture)

**Support Software**

10010171 Calibration Maker 2000 with WinISI Software  
18110171 Calibration Maker 2000 - upgrade  
10010172 Infratec Network Administration 2000  
18110172 Infratec Network Administration 2000 - upgrade  
IS-1470 WinISI for Infratec  
10008385 Infratec File Tool, 1241

**Optional Modules**

1241-050 Test weight module  
1241-060 Colour module  
1241-070 Sample transport module  
10010316 Flour Sample Cup Kit

**Operation Data:****Operating Programs**

Software: Menu driven  
Regression programs: PLS (Partial Least Squares)  
ANN (Artificial Neural Network)  
No of sub sample 1 - 20

**Sample handling and result presentation:**

Analysis time: 50 sec. typically for 10 sub-samples  
Path length: Variable cell from 6-33 mm for free grain  
Result report: Presented on the display as default.  
Can be sent to PC/LIMS and the printer port  
Outlier function: A special outlier warning is shown on the display if the sample differs from the calibration samples

**Technical Data:**

Voltage: 220-240V 50-60Hz or  
110-120V 50-60Hz  
Rated current: 1.0A (110-120V) / 0.5A (220-240V)  
Dimensions: W × D × H - 500 × 570 × 363 mm  
Weight 31 kg  
Monochromator: Scanning  
Wavelength range: 850 - 1050 nm (570-1100 nm with colour module installed)  
Optical bandwidth: 7 nm  
Number of data points/scan: 100 (265 with colour module installed)  
Mode: Transmittance  
Light source: Tungsten halogen lamp  
Detector: Silicon

Storage Media: Flash disk, Floppy disk 3.5"  
Display: 320 × 240 pixels, monochrome LCD  
**Interface:**  
Printer: 25 pins parallel port  
Modem: 9 pins serial port  
External PC: 9 pins serial port  
Keyboard/Barcode: Serial port  
Diagnostics: Selftests for internal communication, monochromator and detector (offset, gain and noise)  
System protection: Dust and humidity protected

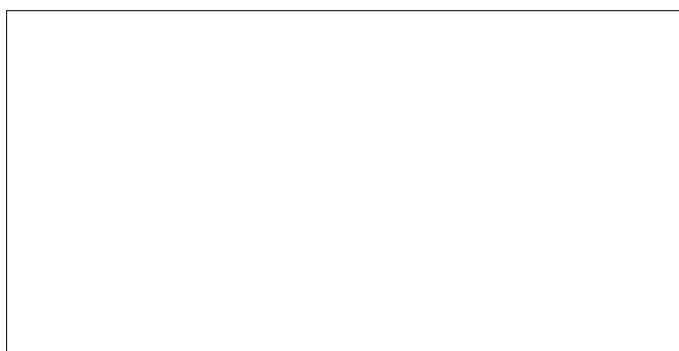
\* Ordering information: Use the above specified Cat. Nos. together with the text.

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

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