OPTOSKY
Spectroscopy Solutions

Datasheet

Near infrared grain analyzer | IR2300

Features

- Light path design for near-infrared transmission.
- Powerful and professional infrared modeling software.
- The measurement is green and environmentally friendly, no sample preparation is required, and the measurement speed is fast.
- High-definition touch screen operation, intuitive and friendly user experience.
- Long life light source (more than 5000 hours), easy maintenance.
- A variety of data transmission interfaces to facilitate data sharing with other devices.

Description

IR2300 is a special instrument developed by optosky using the latest near-infrared technology for grain analysis. It delivers superior analytical accuracy and speed, ease of use and robustness. It can conduct non-destructive and rapid detection of moisture, protein, fat, test weight, starch and other parameters in grains.

The instrument adopts touch screen operation, and the software interface is intuitive and concise. Users only need to pour in a grain sample to analyze.

1503 Bld. A04, 3rd Software Park, Jimei, Xiamen, 361005, China
Tel: +86-592-6102588

1. Principle

Based on the specific spectral characteristics of each substance, the grain sample is irradiated with light of a specific wavelength, and the protein, moisture, and fat in the grain are calculated and analyzed by detecting the light absorption, reflection, or transmission characteristics of the sample, combined with the built-in correction model. , starch and other nutritional components and quality indicators, thereby achieving non-destructive, rapid and accurate detection of grains.

2. Application fields

- Purchase of wheat and barley
- Wheat and barley processing
- Wheat and barley sampling testing
- Corn and soybean processing
- Corn and soybean production
- Other cereals, etc.

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3. Parameter

Analysis parameters	
Samples	Wheat, barley, soybeans, corn, rice, etc.
Analysis Time	About 60 seconds
Parameters	Moisture, protein, fat, test weight (optional), starch, fiber
Principle	Continuous scanning spectrum, transmission method detection
Sample size	Whole sample 50-800ml
Number of subsamples	Customizable
Optical parameters	
Detector	256 InGaAs detector（ATP2000P）
Wavelength range	570-1100nm
Wavelength accuracy	< 0.05nm
Spectral bandwidth	About 7nm
Spectral resolution	0.1nm~10nm optional
Noise	< 20uA
Light source lifespan	Not less than 5000 hours
General parameters	
Interface	USB，network port
Power supply	110V～240V，50/60Hz
Dimension	400*400*350mm
Weight	15kg

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