DRAWELL
Artist of Science

DW-S460 NIR SPECTROMETER

The S460 NIR spectrometer provides calibration models for multi-domain and diversified applications. It can be widely used in agricultural feed, grain and oil food, wine and starch, soy sauce fermentation products.

Features:

- Easy to operate, no sample preparation is required, and the sample is not damaged.
- 700nm - 2500nm ultra-wide spectral range, fast analysis. Multiple component indicators such as moisture, fat, protein and amino acids can be detected simultaneously in 1 minute.
- The core components of the instrument, such as tungsten lamps, filters, gold-plated gratings, and refrigeration indium gallium arsenide detectors, all adopt international leading brand products to ensure the high quality of the instruments from every aspect.
- The instrument is calibrated using NIST traceable standards to ensure good model transfer performance. Built-in PTFE reference module and polystyrene wavelength standard, automatic reference correction and wavelength correction to ensure wavelength accuracy and stable measurement results.
- The instrument is equipped with an integral sphere diffuse reflection sampling system, which collects diffuse reflection light at multiple angles, which is more conducive to improving the measurement reproducibility of uneven samples.
- A variety of sample cups and accessories are available for particle, powder, liquid and film testing.
- The instrument monitors the ambient temperature and humidity in real time and stores it in the spectrum file, which is convenient for users to check and optimize the measurement conditions.

Applications

Feed industry	**Feed ingredients: (40 kinds), corn, soybean meal, DDGS, rapeseed meal, fish meal, meat meal, meat and bone meal, flour, wheat bran, rice bran, rice bran, cotton aphid, peanut meal, sorghum, wheat, zein, soybean concentrate Protein, fermented soybean meal, broken rice, shrimp shell powder, etc.**	**Raw material acquisition, production and processing monitoring.**	**Moisture, protein, fat, fiber, ADF, NDF, protein solubility, starch, acid value, VBN, amino acid, etc.**
	Finished feed: pig, chicken, duck, fish, shrimp, crab, rabbit, frog, special materials, etc.	**Product testing**	
Livestock industry	**Alfalfa, corn silage, all kinds of forage**	**Raw material acquisition, production processing monitoring**	**Dry matter, protein, fat, ash, starch, NDF, ADF, lignin, neutral washing, no protein, acid washing, protein, soluble protein, digestible protein, calcium, phosphorus, magnesium, sodium, sulfur, chlorine, non Fiber carbohydrate, monosaccharide, NH4, lactic acid, acetic acid, 24-hour dry matter digestibility, 24-hour NDF digestibility, relative feed value, etc.**
	Cattle, sheep supplement, TMR diet		

Grain,oil and food processing	Soy, corn, wheat cottonseed, rapeseed, sesame, soybean oil, vegetable oil	Raw grain trading acquisition, grain storage, production processing monitoring	Moisture, protein, lactose, fat, fiber, ash, ADF, NDF, fatty acid peroxide value, acid value, iodine value, etc.
	Milk powder, biscuits, whey powder, etc.		
Breeding research	Wheat, corn, soybeans, rapeseed, peanuts, potatoes	Seed screening and evaluation	Protein, fat, fiber, starch, fatty acid composition, glucosinolate, erucic acid, etc.
Wine industry	Liquor, mixed wine, raw grain, fermented material	Raw grain and product evaluation, production process control	Moisture, starch, acid value, alcohol content, reducing sugar, total ester, methanol, ethyl lactate, ethyl hexanoate. ethyl acetate, etc.
Academic Research	Product development, calibration technology cooperation and development services		

Specifications

Instrument model	DW-S460
Measurement method	Integrating sphere
Spectral bandwidth	12 nm
Wavelength range	700 nm~2500 nm
Wavelength accuracy	≤0.2 nm
Wavelength repeatability	≤0.05 nm
Stray light	≤0.1%
Absorbance noise	≤50μA
Analysis time	1 minute (adjustable)
Lifetime of Light Source	More than 5000 hours
Sample volume	Cup M7(Φ70) is about 60 g Cup M9(Φ90) is about 120 g (optional)
Calibration Technology	Quantitative analysis: LPLS local partial least squares Qualitative analysis: DPLS digitized partial least squares
Size	365x295x157(mm)
Weight	18kg