

# SupNIR-2700 series

## Near infrared analyzer

—applicable to grain/feed/food quality rapid analysis



SupNIR-2700 series near infrared analyzer utilizes optical design which combines holographic digital light grating and high sensitivity indium gallium arsenic detector (TEC refrigeration constant temperature). Based on permeable reflection modes to do sample analysis, wavelength range covers 1000-2500nm. No destruction rapid detection of solid flake, pellet, powder, and samples in some composition of physical and chemical is achieved by external computer and RIMP software. As an easy operation system, just put samples plate on sample desk, start measurement by a click, and then the instrument finish measurement and analysis automatically. It is widely used in feed production, agricultural products processing, grain purchase, cultivation planting research etc.

### High property RIMP software

RIMP is the professional software with the features of full Chinese display, friendly man-machine interface and easy operation, which also combines instrument operation, modeling and data processing together. The software has mainstream chemical metrology which includes PLS least squares regression analysis for quantitative analysis, ANN artificial neural network method, SIMCA method for qualitative analysis, cluster analysis etc. Function of measurement data storage, check, exchange, statistics and report output etc can be achieved based on the database.

### Product features

- Easy operation, no need of special training, and no need of sample pretreatment which may damage the sample.
- Rapid analysis, detect multiple index simultaneously within one minute, such as water, fat, protein, fiber, ash composition, amino acids etc index.
- Applicable to multiple sample types, such as flake, pellet or powder, and easy to place samples.
- Spectrum technology and indium gallium arsenic detector are scanned by advanced grating, ensure instrument stability and better noise ratio
- Rotation sample plate measurement modes, increase the representativeness of heterogeneous samples, improve accuracy of measurement results .
- Built-in standard substance has automatic fault diagnosis and prompt function.
- The light source utilizes self-collimation module design, no need of adjustment which make it easy to change the light source.
- Models can be delivered successfully among multiple instruments.
- Full Chinese display, easy operation, combines instrument operation, modeling and data processing together.
- Support network connecting, convenient for instrument maintenance and model update.



▲ Provide one key modeling function

▲ ANN model evaluation view

▼ Rotation sample plate design—make detection more accurate



▼ Simple and rapid replacement of light sources



## ■ Application Area



### Feed

- Raw material purchase
- Processing
- Finished products sampling check



### Fat processing

- Raw material purchase
- Processing



### Grain exchange

- Grain purchase
- Grain storage



### Cultivation seed research

- Seed selection
- New products evaluation

## ■ Detection index

Sample source	Sample type	Detection index
Raw stuffgrains	Wheat	Water, Crude protein, Unsaturated fat, Crude fiber, Ash, Ingot powder
	Corn	Water, Crude protein, Unsaturated fat, Crude fiber, Ash, Ingot powder, Amino acid
	Soybean	Water, Crude protein, Unsaturated fat, Ingot powder
	Soybean meal	Water, Crude protein, Unsaturated fat, Crude fiber, Ash, Protein dissolution, Ingot powder
	Rapeseed meal	Water, Crude protein, Unsaturated fat, Crude fiber, Ash, Protein dissolution
	Cottonseed meal	Water, Crude protein, Unsaturated fat, Crude fiber, Ash
	Fish powder	Water, Crude protein, Unsaturated fat, Crude fiber, Ash, Acid, Amino acid
Finished feedstuff	Pig feed	Water, Crude protein, Unsaturated fat, Crude fiber, Ash, Calcium, Total phosphorus
	Aquatic feed	Water, Crude protein, Unsaturated fat, Crude fiber, Ash, Calcium, Total phosphorus
	Poultry feed	Water, Crude protein, Unsaturated fat, Crude fiber, Ash, Calcium, Total phosphorus
	Concentrated feed	Water, Crude protein, Unsaturated fat, Crude fiber, Ash, Calcium, Total phosphorus
Food	Milk powder	Water, Fat, Protein, Lactose, Ash
	Meat	Water, Fat, Protein

Notes: add detection types and index according to customer requirement.

## ■ Instrument parameter

Wavelength range	1000-1800nm, SupNIR-2720
	1000-2500nm, SupNIR-2750
Spectrophotometric noise	Less than 50uA
Wave length precision	0.2nm
Wave length repeatability	0.05nm
Spectral resolution	10nm
Stray light	< 0.1%
Number of simultaneous analysis index	30
The light source life span	> 5000 hours
Communication interface	USB2.0
Temperature range	(5-35) °C
Humidity range	(5-85) %
The length source	< 198-242 > ~/50Hz/0.5A
Dimensions(length*width*high)	400x420x360mm
Weight	18kg



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