- Comparison between reference value by official method and predicted value by KB-270
- * The following is only an example of the test results of creating a calibration curve. Therefore, the following does not guarantee the same results by using the same type of sample.

Sample: cookie; content: moisture Sample: flour; content: protein





Correlation coefficient: 0.997; standard error: 0.135 standard error: 0.070

Sample: flour; content: carbohydrate Sample: milk; content: milk fat



standard error: 0.115

2 3 Reference value (%)

Correlation coefficient: 0.991; standard error: 0.172

 Specifications 	
Measurement method	Near-infrared reflection, light projected/ received at bottom plate
Spectroscopy	Filter spectroscopy
Measurement spot	Approx. 25 mm in diameter
Number of channels	50 (1 CH. x 4 compositions or contents, simultaneous measurement)
Measuring time	Normal measurement: 7 sec. (subject to setting) Continuous measurement: at intervals of 0.5 sec.
Display	Organic EL
I/O	USB (PC I/O), RS-232C (printer output), LAN
Light source	Tungsten lamp
Temp./humidity operating range	5 to 35° C (no condensation), 30 to 80%RH
Power supply	100 V-240 V AC (50/60 Hz) 40 W
Dimensions/Mass	415 (W) x 370 (D) x 230 (H) mm, 12 kg
Accessories	Light shielding cover, petri dish with 90 mm dia for samples, sample holder, zero-adjustment plate, power cable, spare fuse, wireless LAN router, PC software, and operating manual

KETT ELECTRIC LABORATORY Contact Kett 1-8-1 Minami-Magome, Ota-ku, Tokyo 143-8507, JAPAN ⊗ http://www.kett.co.jp/ ⊠ overseas@kett.co.jp Management system enhancement department of the Japanese Standards Association (JSA) registers the Quality Management System of the above organization, with conform to JIS Q 9001, ISO 9001. The scope of the registration. Design, development and production management, calibration and repair

of Moisture testers, NIR composition analyzers, Grain inspectors and Coating thickness testers.

• Options



Thermal printer with 58 mm of paper width, measured results can be immediately printed.



Four compositions revealed at once.



Deep type light shielding cover

Large petri dish

(150 mm dia)







Masking holder (arbitrary

small petri dish (30 mm dia)

hole diameter) +



To improve the product, specifications and the external appearance may be changed without notice. In addition, please note that due to printing, the product's color may appear different from the actual article.



NIR Composition Analyzer Model KB-270

Simultaneously display four composition and content analysis results!

Composition and content analysis generally consumes This product, the KB-270 NIR Composition Analyzer, significant time. The data amount that can be obtained in a day, even using good analysis methods, has compositions or contents with one measurement in limitations.

However, the time to be used can be reduced.

-- A near-infrared analyzer enables reducing the time. If calibration curves correlated with composition and In many cases, pretreatment such as crushing or content analysis values are registered in the nearinfrared analyzer in advance, the composition and and particle diameter variations matter little. Using the content percentage can be measured in a few seconds.

can simultaneously measure up to four different only a few seconds, using the absorbance of nearinfrared reflections of multiwavelengths with different characteristics.

smashing is unnecessary because the sample shapes optional masking holder enables measurement of small valuable samples.

Significantly reduced measurement time enables the measurement results to be immediately reflected in the manufacturing line of the object being measured, reducing manufacturing losses. In addition, increased data quantity facilitates reading the composition or content fluctuations daily or seasonally, leading to improved manufacturing quality.

• Immediate response

(1) Set the sample in the supplied petri dish or directly on the measurement window, (2) close the light shielding cover, and (3) press the measurement button. The measured compositions will be displayed in approximately seven seconds.







Two types of measuring modes equipped

The product has a normal measurement mode that displays the average value calculated from the set number of measurements and a continuous measurement mode, enabling viewing changes in moisture content as time passes. Graphs can be displayed on a PC.



Creating calibration curves

Calibration curves can be easily created by PLS calculation, using the supplied PC software.

Three steps for creating calibration curves





Calibration curve completion

The calibration curve the most suitable for practical use is automatically selected from the multiple candidates.



Selectable measurement method

The supplied petri dish can be used to hold the sample and some samples can be directly put on.

For a sheet-shaped sample, the optional reflective plate can be put on; for a small valuable sample, the optional masking holder can be used; you can choose measurement methods from a wide selection.



Suitable for uneven particles. powders, pastes and shapes.





Suitable for large solids that will not taint the measurement window



When the reflective plate is used for measuring a large sheetshaped sample, removing the light shielding cover increases



the flexibility of the measurement point, facilitating the measurement.

The petri dish used with the masking holder is 30 mm in diameter. The hole diameter of the measurement spot is usually 25 mm, but other sizes can be also ordered.

For measuring only moisture content

If only moisture content is to be measured, a plastic bag or polyethylene sheet may be used to hold the sample. For a powder sample that can stain the petri dish easily, the moisture content of the sample can be measured in a packed state. For a solid sample that can stain the measurement window easily, the moisture content of the sample can be simply measured just by putting it on the sheet.



• For various measuring objects

This product can measure agricultural products, raw food materials, processed goods, medical products, paper, minerals, powders, pastes and more. The type and characteristics of the objects do not matter.

* For all of the objects, a calibration curve needs to be created.