NEAR INFRARED MOISTURE METERS

Model 130, 230 and 703

Kett

Kett

Tomorrow's Testing, Today !
1-800-438-5388

Why Measure Moisture?

The amount of moisture in a product can greatly affect perceived quality, and is also very important when transactions are based on weight. Small errors in measurement can have significant repercussions. For these reasons, it is crucial to have accurate moisture content readings, especially when performing inspections which are used to maintain and adjust quality, and to ensure equitable transactions

Moisture Meters were developed to obtain accurate measurements of these subtle, yet important values. As a pioneer in the field of moisture content testers, Kett has developed a large variety of models for different materials and applications. Our measurement devices help our customers meet worldwide specifications and standards.

Who can Use a Moisture Meter?

The vast number of products and applications affected by moisture content may be surprising. Applications include, but are not limited to:

- Food & Beverages
- Pharmaceuticals
- Minerals & Chemicals
- Plastics & Composites
- R&D Laboratories
- Pulp & Paper
- Textiles
- Cosmetics
- Paints & Coatings
- Regulatory Agencies

The list is virtually endless!

Does your business require accurate moisture readings?

Why Use Kett?

A moisture meter that meets the needs of your company is essential. After all, it is not only your product quality at stake... Kett will be a vital asset of your company's reputation! Kett near infrared (NIR) moisture meters utilize the principle that water absorbs certain wave-lengths of light. Once your meter has been calibrated against your existing lab or production standard, the Kett NIR Moisture Meter provides instantaneous moisture measurements — without contact or sample preparation!

Obviously, the ability to provide instant measurements saves tremendous time for your staff, reduces production waste, expedites "just-in-time" principles, and allows audits in locations previously considered difficult or impossible to measure (suppliers, field audits, on trucks, in vats or vessels). Kett NIR moisture meters are simple, economical tools that will aid in the many applications of your company. Accurate and repeatable measurements will be obtained without extensive operator training.

Since all of our meters offer full digital communications capabilites, data storage and host process control can be easily accomplished from a stand-alone PC, networked solutions, or PLC facilities.

Our Process Models utilize "Smart" measurement heads. All calibration equations and process control variables are stored within the head. This provides unlimited flexibility and protects your process against complete shutdown, should a single component fail.

KJT130 - Enhanced Portable, Handheld Model

The KJT130 is an innovative instrument that expands the concepts of instantaneous measurement and user-friendly operation. Ideal in a quality control setting where frequent, on-site spot checks are important, the 130's portability provides a distinct advantage over other moisture analyzing equipment. This is the New Standard for Quality Control!

Total Flexibility

Your product quality begins with the control of raw materials coming from your suppliers. In additional to laboratory use, this compact analyzer allows moisture testing in unconventional settings such as your receiving dock, on trucks, in the field, at suppliers, in vessels, and on the production line. All are easily handled! Imagine the possibilities!

KJT703 - Production Model

Instantaneous In-line Use
The KJT703 provides instant and continuous moisture measurements on your production line, eliminating costly batch waste. This provides unsurpassed information to control your process.

Simple Calibration
Up to 100 product calibrations can be stored per sensor head. Additional calibrations may be downloaded from a computer and/or laptop. Menu-driven calibrations with Automatic Curve Generation allows each sensor head to be calibrated for your production line in less than an hour. Zero adjustment and other modifications are completed in seconds.

Unsurpassed Precision and Accuracy
Integrated temperature sensors on each head minimize calibration drift due to ambient changes within the plant. Constant monitoring of your facility provides you with the ability to modify production or environmental controls on demand.

Field Proven
Developed for manufacturers, by a manufacturer, over 500 KJT's were installed before the first unit was commercially offered. Today, thousands are used on production lines throughout a wide variety of industries.

Which Kett Do I Need?
Kett offers three models to address your specific applications. All offer a wide array of standard features such as:

User-Friendly Operation
Through the use of menu driven commands, the KJT/KB Moisture Meters can be easily programmed and operated.

Varied Moisture Applications
KJT Meters measure slurries, pastes, films, and jellies (high moisture) as well as chemical raw materials and finished products (low moisture).

No Preparation Necessary
Unusual textures and particle size variation are not an issue since sample preparation is not required.

Instantaneous Measurement
Kett Moisture Meters not only take an average of the moisture samples, but also measure moisture instantaneously in order to achieve the most accurate results. Statistical sampling is a compromise of the past, as each batch can now be tested and results obtained — instantly!
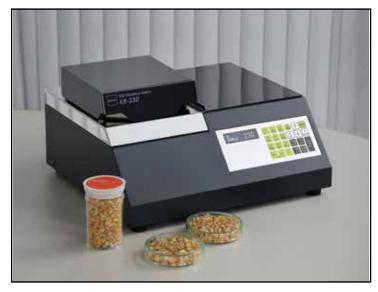
Error-Free Measurement
Through the use of molecular level absorption and easy to clean sample holders, results will be free of measurement errors that occur due to evaporation.

Sample - Friendly Equipment
While standard moisture measurements deform or destroy the sample, Kett NIR meters do not alter the sample in any way. This allows precious items to be returned to their batch, saving money and allowing more frequent testing.

KB230 - Advanced Laboratory Model
This unique instrument replaces conventional laboratory moisture analyzers. Extreme precision results from the 230's rotating turntable which automatically averages the moisture content from the entire sample, rather than just a single spot reading. This is ideal in where whole (heterogeneous) samples such as wood chips or cookies are analyzed in addition to standard ground (homogeneous) samples such as powders and liquids.

Replace Your Existing Laboratory Testers
The storage of fifty on-line calibrations allows this unit to handle the jobs of numerous existing methods. Ovens, balances, and Karl Fischer titrators can be supplanted by the Kett KB230. Ease and efficiency of moisture measurement are increased, as each calibration can be accessed through a simple, one-touch command.

Accessories and Options

A large number of options and accessories are available to simplify your testing and optimize the instruments. Some of the more common options are listed below:

Computer Software and Printers

For statistical measurement and process diagnostics. Also allows for calibration curves to be saved and then easily downloaded to the meter. Printers provide a hardcopy of your data.

Zero Adjustment Standard

Quickly verifies instrument and calibration stability.

KJT 130

Extension Hood

Protects the optics from contaminants and reduces glare in extremely bright areas.

Battery Packs and AC Adapters

Provide additional operational time for remote use.

KB230

Sample Containers

Standard glass or plastic containers for most uses. Glass dishes and plates for liquids and slurries.

Diffusion Reflector

Used for transparent materials.

Light Shielding Mask

Used for smaller samples.

KJT703

Specialty Enclosures

Allows use in hazardous, food grade, or dirty locations.

Robotic Handling Systems

Scanning frames for web applications. Sample handlers for custom applications.

Robotic Handling Systems

A variety of options, adapters and configurations are available to integrate with your existing control systems.

Specifications

Model	KJT130	KB230	KJT703
Measurement Range	0-100%	0-100%	0-100%
Measurement Distance	150 +/- 25mm	150mm	350 +/- 50mm
Measurement Diameter	25mm	up to 90mm	35-50mm
Response Time	Instant	Instant	Instant
Refresh Rate	0.2 Seconds	0.3 Seconds	0.5 Seconds
Analytical Curves	50	50	50
Ambient Temperature	10-30°C	10-35°C	10-40°C
Ambient Humidity	0-80% RH	0-80% RH	0-90% RH
Accuracy	Up to +/- 100ppm	Up to +/- 10ppm	Up to +/- 10ppm
Display Moisture Absorbance Calibration Curve Date/Time Sensor Number Control Data	Y Y Y Y N/A Y	Y Y Y N Y Y	Y Y Y N Y N
Power Source (AC/Batteries)	100-240V 6.8V, 2A	100-240V N/A	100-240V N/A
Measuring Principle	Infrared Absorption - reflection from the product is detected and correlated with existing laboratory methods		
Light Source	Tungsten Lamp		
Detector	Lead Sulfide		
Display Type (Digital)	Backlit LCD	OLED	LED
Communications	RS232C	RS232C/Ethernet	RS485 + 20mA
Remote Control	Optional	Y	Y
Weight (Net/Shipment)	1.1/6 kg	12.5/19 kg	9.5/13.6 kg
Dimensions (mm)	172Hx 102Wx210D	230Hx 415Wx370D	319Hx 176Wx363D
Warranty	All Kett NIR Moisture Meters are covered by a one-year Total Care manufacturer's warranty on parts and labor. Post-warranty maintenance agreements are also available. Please call for information.		

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Test other Organic Components for Instant Proximate Analysis

Kett manufactures one of the widest arrays of near-infrared test instrumentation. In addition to moisture analyzers we provide a full line of instrumentation for simultaneously measuring multiple organics. Some of the components measured by our customers are water activity, oil/fat, protein, sugar, solvent/alcohol, BTU, coatweight, film thickness, and bulk density.

Tomorrow's Testing, Today!

Kett offers a complete line of innovative test and analysis equipment — for process, laboratory, and field applications.
Moisture testing is our business! If your company requires quick, accurate measurements, please call Kett!

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SCIENCE OF SENSING

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