

NEW

Kett
SCIENCE OF SENSING

LU-200

Ultrasonic Coating Meter



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Electromagnetic or high frequency coating meters are commonly used to measure coatings such as paint on metallic substrates. However in recent years there is increasing demand for devices to measure coatings for which these types of technologies are not suited, such as coatings on non-metallic substrates such as resins, or coatings which cannot be measured with sufficient precision using these methods. The LU-200 was developed in order to meet this demand for more sophisticated measurement technology.

Features

1. Ability to measure applied coatings on resin substrates.
2. The newly developed probe is applied directly to the surface being measured in order to provide highly reproducible measurement results.
3. Computer processing for high resolution and very precise measurement.
4. Includes data memory, data output and statistical functions.

Application

The LU-200 can be used to measure the thickness of a large variety of different coatings, so long as the substrate and coating do not have unusual acoustic (sound impedance) properties. In addition to coatings on resin and metallic surfaces, the LU-200 can also be used to measure inorganic coatings on substrates such as mortar, etc.

Calibration

Outline

Ultrasonic coating thickness testers are not calibrated in the same way as electromagnetic or high-frequency coating thickness testers. Unlike these other devices, ultrasonic thickness testers must be calibrated separately for each type of material being measured. The most important factor effecting calibration is the speed of sound conduction through the material, which is affected by the layered structure of the substrate and coating.

Creating calibrations

It is necessary for the user to make calibrations for unknown coating materials. If creation of calibration standards is requested from Kett, we require a sample of the material in addition to information regarding the layer structure of the coating and substrate. Please inquire with Kett representatives regarding creating of calibration standards. Diagram 2 is an actual coating thickness measurement example of a microscopic cross section. A calibration standard is determined by ultrasonic measurements at multiple points and microscopic inspection.

Specifications

■ Measurement method	: Ultrasonic reflection method	■ Display	: Dot matrix LCD
■ Application	: Coatings on resin and metallic surfaces	■ External output	: RS-232C
■ Measurement Range	: 10 - 700µm	■ Power supply	: 5 Size AA alkaline batteries or 100V AC (with AC adapter)
■ Display Range	: 5 - 700µm	■ Size and Weight	: Main unit : 120 (W) x 250 (D) x 55 (H) mm, 800g Probe : ø63 x 85(H) mm, 220g
■ Measurement precision	: ±2µm under 50µm ±4% over 50µm	■ Accessories	: Carrying case, standard samples, AC adapter,
■ Resolution	: 1µm		
■ Statistical functions	: Number of measurements, average value, standard deviation, maximum value, minimum value		

* Measurement range and precision depend on the substance being measured.

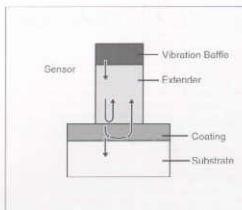


Diagram 1



Diagram 2

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* Design and specifications are subject to change without notice.