Metrix+™
Innovative Excellence

ULTRASONIC THICKNESS GAUGE

UTM 18CT

Through-coating thickness measurement

Measuring principle

Ultrasonic thickness gauge determines the sample thickness by measuring the amount of time it takes for a sound pulse, generated by an ultrasonic transducer, to travel through a test piece and reflect from the inside surface or a far wall. This instrument also measures the time for consecutive echoes to measure the thickness eliminating the coatings.



Applications

Applicable to measure the thickness of many materials, like steel, cast iron, aluminium, red copper, brass, zinc, quartz glass, polyethylene, PVC, gray cast iron, nodular cast iron. It is widely used to measure the thickness and corrosion of pressure vessels, chemical equipment, boilers, storage tanks, etc in petroleum, shipbuilding, power station and machine manufacturing industries.

Features

- Multi-mode with Pulse-Echo mode for thickness measurement, and Echo-Echo mode for eliminating paint or coating thickness, which is also useful to measure coating thickness on concrete, ceramics, plastics, composites, etc.
- Zero, sound velocity and two-point calibration
- Single point and continuous measuring modes
- Low battery information and automatic power off.
- Metric/ Imperial measurement units (mm and inch)
- Data storage and recall

Technical Specifications

Model	*Metrix+* UTM 18CT
Display	Backlit LCD
Measuring range	With standard probe: Pulse-Echo mode: 0.65 - 600mm (Steel) Echo-Echo mode: 3 ~ 60mm (Steel)
Accuracy	±(0.5%n + 0.05)mm, depending upon material and conditions
Resolution	0.1mm / 0.01mm
Sound Velocity	1000 ~ 9999 m/s
Memory	Upto 20 files (99 values for each file)
Measurement frequency	4 times per second for single point mode 10 times per second for continuous measurement(scan) mode
Operating conditions	Temperature: 0 ~ 40ºC; Humidity < 85% RH
Power	1.5V x 4 AAA batteries
Size & weight	142mm × 72mm × 34mm, 175g(excluding battery)

Standard Accessories	Main unit, standard probe (PT5: 8mm/5MHz), couplant, user manual & hard carry case
Optional accessories	PC interface, Bluetooth
Optional probes	1. PT2.5 – 10mm/2.5MHz for plastics and cast iron 2. PT7 – 6mm/7MHz for thin and small steel parts 3. PT HT5 – 12mm/5MHz ceramic probe for high temperature measurement on steel surfaces 4. PT5 – 8mm/5MHz standard default probe 5. Calibration step block