

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.

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 in almost all kinds of industries.

Features

- Preset material velocities for easy selection with custom velocity input.
- Inbuilt self-calibrator and simple calibration function.
- Automatic power off.
- Optional PC interface for data logging.



Technical Specifications

Model	Metrix+ UTM 5
Display	Backlit LCD
Measuring range	1 – 200mm (45# Steel)
Accuracy	$\pm 0.5\%n + 0.1\text{mm}$
Resolution	0.1mm
Sound Velocity	500 ~ 9000 m/s
Lower limit of pipes	$\Phi 20 \times 3.0 \text{ mm}$, also determined by type of probe
Operating conditions	0 ~ 40°C, Humidity < 80%
Power	1.5V x 4 AAA(UM 4) batteries
Size & weight	145 x 65 x 25mm ; 145g without battery
Standard Accessories	Ultrasonic sensor, couplant, user manual & hard carry case
Optional accessories	<ol style="list-style-type: none"> 1. 6MM probe for small & curved surface/pipes 2. 8MM probe Standard probe 3. HT Ceramic probe for high temperature surfaces 4. PC interface (cable and software) 5. Calibration step block (4step and 10step)

Accessories Details:

Accessory	Details
	8MM Std probe – 8MM diameter 5MHz, 0~50°C
	6MM probe – 6MM diameter 5MHz, 0~50°C
	HT probe – High Temperature Ceramic Probe. 12MM Diameter 5MHz, 60~300°C (max for 4 seconds in one go). Suggested to use with industrial grease as couplant and not place the sensor for more than 4 seconds in one go on the heated surface.
	4 step and 10 step calibration blocks. The thickness of blocks can be customized. Std material is iron, extra charges in case material is to be customized.