

PT-UTGM Material Thickness Meter

**Material Thickness Meter with adjustable acoustic velocity and sensitivity /
data logger for 100.000 data and USB interface / fast-measuring-mode /
automatically and permanent self-calibrating**

The Material Thickness Meter PT-UTGM is an ultrasonic speed measuring device for detecting material thickness and wall thickness. Included in delivery with the Material Thickness Meter is a 5 MHz probe. This cover nearly 95 % of all possible applications. Therefore the use of the other probes of the Material Thickness Meter is not necessary. The Material Thickness Meter with the adjustable ultrasonic speed is used for accurate measurements of low carbon steel and carbon steel also aluminum, titan, plastics, ceramic, glass, ... and many other materials. The Material Thickness Meter also offers the option of accurate material thickness measurements of coated materials. Because of his multiple echo it is possible to diagnose cursorily coatings. The Material Thickness Meter offers an adjustable sensitivity, you also can diagnose PE-coated steel tubes of its material thickness. The measured data can be stored in the device and transferred by the optional software-kit to a PC. The data also can be transferred to a processing program, e.g. MS Excel. Another advantage of the Material Thickness Meter PT-UTGM is that its menu is available in several languages, e.g. German, English, Spanish, Italian, French, ... The software will be delivered in your national language when the device is ordered. If there are any questions about this Material Thickness Meter, please have a look at the technical specification below or call: + 44 (0) 2380 98703 0. Our technicians and engineers will gladly advise you in all [thickness meters](#) and all products in the field of [measuring instruments](#), [laboratory equipment](#), [regulation and control](#) and [scales and balances](#) of [PCE Instruments Ltd.](#)



PT-UTGM1-E Standard

- automatically and permanent self-calibrating
- easy menu navigation
- lighted display
- fast-measuring-mode
- data logger for 250 measurements

PT-UTGM3-E Advanced

- color LCD-display
- scan function
- data logger for 100.000 measurements
- Bluetooth interface
- photo upload

Technical Specifications

Model	PT-UTGM1-E Standard	PT-UTGM3-E Advanced
Data logger	250 measurements	100.000 measurements
Hi Contrast LCD Display	Monochrome	Color
Interface	USB	USB / Bluetooth
Mode	Eco simple	Eco multiple
Measurement range	2.50 ... 125 mm	2.50 ... 60 mm
Sensor head (incl.)	5 MHz, diameter of the probe~ 13 mm	
Resolution	0,01 mm	
Surface temperature	- 10 ... +50 °C	
Calibration	2.5 / 5 / 7.5 / 10 and 12.5 mm	
Accuracy	± 0.03 mm	
Measurement unit	mm/inch (to choose)	
Ultrasound velocity	1250 ... 9999 m/s	
Measurement rate	normal mode: 3/s scan mode: n/a	
Alarm function	when the selected lower and upper levels are exceeded	
Data output	USB / Infrared	
Power	3 x 1.5 V AA batteries	
Dimensions	146 x 61 x 28 mm	
Weight	165 g (with battery)	



Shipment of the Material Thickness Meter PT-UTGM.



The Material Thickness Meter PT-UTGM in application.

Scan mode

The PT-UTGM Material Thickness Meter can be used in both normal and scan mode (only for the standard model). With the scan mode it is possible to measure large material areas. The PT-UTGM Material Thickness Meter can save up to 250 measurement values in its internal memory (with a measurement rate of 20 values every second).

It is very important to use the coupling gel properly during the measurement; in the normal and scan mode. This ensures a good contact with the sensor and protects the surface.



The upper image shows the use of the PT-UTGM Material Thickness Meter in a ship propeller.



A recalibration of the Material Thickness Meter can be performed with the aid of a calibration block.

Delivery content

- 1 x PT-UTGM1-E or PT-UTGM3-E material Material Thickness Meter with an extern probe
- 1 x sensor head (5 MHz sensor) with 1.2 m cable
- 3 x AAA batteries
- 1 x protective rubber holster with belt clip
- 1 x bottle of coupling gel (250 ml)
- 1 x USB cable
- 1 x carrying case
- 1 x user manual

Additional accessories



Coupling gel



Software



Calibration block



Similar products to the Material Thickness Meter PT-UTGM:

- [PCE-TG 100 Material Thickness Meter](#)
(measurement of wall thickness with a tester for plastic and metal)
- [PCE-TG 110 Material Thickness Meter](#)
(for wall thickness tests with tester up to 400°C for steel pipes)
- [PCE-TG 120 Material Thickness Meter](#)
(with a measurement range of 1.0 mm to 30.0 mm and a resolution of 0.1mm)
- [PCE-TG 200 Material Thickness Meter](#)
(Material Thickness Testers with memory of 4,000 readings, data cable and software)

