

# CT-Gage

The CT Gage has been designed as a multi- purpose ultrasonic material and coating thickness instrument with a wide range of features.

The CT-Gage is able to simultaneously and independently measure the material and the coating thickness, or switch to the time based B-Scan view to see a cross section view of the material you are inspecting.

### There are 5 Measurement Modes:

- Pulse-Echo
- Pulse-Echo w/Coating
- Echo-Echo
- Pulse Echo w/Temperature Compensation
- Coating only mode

### The CT-Gage is easy to use incorporating:

- Single or two-point calibration option for material and coating, or selection from basic material types.
- Automatic Probe Zero
- Automatic Probe Recognition
- Automatic temperature compensation
- Automatic Gain Control
- Time Corrected Gain

A custom calibration configuration for both the material and coating types offers extreme linearity.

The **CT-Gage DL** includes all of the above features but is also equipped with a data logger. The data logger consists of two file formats: Sequential logging with auto identifiers and an alpha-numeric grid. The file formats are currently compatible with UltraPipe Asset Management Software.

The CT-Gage DL can store 16,000+ readings, with B-Scan captures, recording all the gauge's settings and features, or turn the graphics mode off and store over 210,000 readings!



Time based B-Scan for cross section material scans

Stores up to 64 custom set ups for specific applications

Audible/visual alarms with hi & low limit settings

Display update rate of 25 times per second

PC software included

2 year warranty

**Material & Coating Thickness Gauge**

**Power, Performance & Perfection.**



# CT Gage

# Specifications

## Ultrasonic Specifications

### Measurement Modes:

**Coating Off:** Pulse-Echo (P-E)

**Coating On:** Pulse-Echo Coating (PECT)

**Temp Comp:** Pulse-Echo Temperature Compensation (PETP)

**Thru-Paint:** Echo-Echo (E-E)

**Coating Only:** Coating (CT)

**Pulsers:** Dual square wave pulsers.

**Receiver:** Dual receivers - manual or ACG gain control with 110dB range (limited).

**Timing:** Precision 25 MHz TCXO with single shot 100 MHz 8 bit ultra low power digitizer.

## Measuring

### Range:

**Pulse-Echo Mode (P-E)** - (Pit & Flaw Detection)

Measures from 0.63 - 508 mm (0.025 - 19.999 ins)

**Pulse-Echo Coating Mode (PECT)-**

(Material, Coating, Pit & Flaw Detection)

Material: 0.63 - 508 mm (0.025 - 19.999 ins)

Coating: 0.01 - 2.54 mm (0.001 - 0.100 ins)

**Pulse-Echo Temp Comp Mode (PETP) -**

(Pit & Flaw Detection)

Auto temperature compensation, measures:

0.63 - 508 mm (0.025 - 19.999 ins).

**Echo-Echo Mode (E-E)** - (Thru paint and coatings)

Measures from 2.54 - 102 mm (0.100 - 4.0 ins)

**Coating Only Mode (CT)** - (Coating Thickness)

Measures from 0.0127 - 2.54 mm (0.0005 - 0.100 ins)

Range will vary +/- depending on the coating.

**Resolution:** +/- 0.01 mm (0.001 inches)

**Velocity Range:** 1250 to 13995 metres/sec

0.0492 to 0.5510 ins/ms

Single or two point calibration option for material and coating, or selection of basic material types.

**Units:** English or Metric

## Physical

**Size:** 63.5mm(W) x 165mm(H) x 31.5mm(D)  
2.5in(W) x 6.5in(H) x 1.24in(D)

**Weight:** 382.72 gms (13.5 ounces) with batteries

**Keyboard:** Membrane switch pad with twelve tactile keys.

**Operating Temperature:** -10°C to 60°C

**Data Output:** Bi-directional RS232 serial port.  
Windows PC interface software.

**Display:** 1/8 in VGA grayscale display (240 x 160 pixels).  
Viewable area 62 x 45.7 mm (2.4 x 1.8 ins)  
EL backlit (on/off/auto)

## Power Source

Three 1.5V alkaline or 1.2V NiCad AA cells.

Typically operates for 150 hours on alkaline.

Auto power off if idle for 5 minutes.

Battery status icon.

## Display

**Large Digits:** Standard thickness view. Digit height 17.78mm (0.700 ins)

**B-Scan:** Time based cross section view. Display speed of 15 secs per screen.

**Scan Bar Thickness:** 6 readings per second. Viewable in B-Scan and Large Digits views.

**Repeatability Bar Graph:** Indicates stability of reading.

**Features Status Bar:** Indicates features currently active.

## Transducer

**Transducer Types:** General purpose 5MHz 1/4" (6mm), with integral 4 foot cable.

Custom transducers (1MHz to 10MHz frequency range) and cables available for special applications.

## Data Logger (CT-DL)

**Log Formats:** Grid (alpha-numeric), Sequential (auto-identifier)

**Graphics On:** 16,000 readings, B-Scan image & gauge settings for every reading.

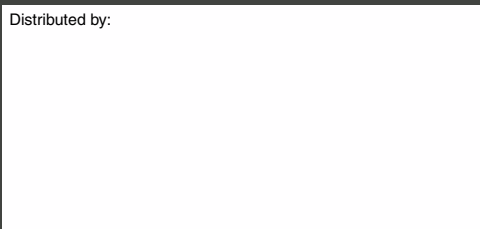
**Graphics Off:** 210,000 readings (coating, material, min & max) OBSTRUCT to indicate inaccessible locations.

## Certification

Factory calibration traceable to national standards.

**Warranty:** 2 year limited.

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