

# TI-007X & TI-007DLX

## Ultrasonic Wall Thickness Gauges with Delay Line Transducer

**Range with Delay Line Transducer**  
0.0060" -1.000" (0.150 - 25.40mm)

**Range with Contact Transducers**  
up to 36.00" (923.0mm)

Designed for high-resolution measurements on thin-wall metal and plastics.

### Features

- Includes NIST Traceable Calibration Certificate
- Resolution of 0.0001" (0.001mm)
- Selectable units, inch or mm
- USB Data Output, includes cable
  - TI-007X (single value only)
  - TI-007DLX (internal memory)
- Optional serial RS-232 or Bluetooth output
- Two (2) AA Batteries provide 45 hours of continuous operation
- Measure Modes: Pulse-Echo (P-E), Echo-Echo (E-E), Interface Echo (I-E), Plastics (PLAS), Differential, Alarm, Scan and Velocity (VX)
- LCD shows thickness value, velocity, gain, stability & battery indicators, scan mode, zero and units
- Scan mode, 100 readings/sec. The minimum thickness will be displayed
- Automatic Time Dependent Gain (TDG) with manual adjustment, for use on challenging materials or applications
- Can be used with both Single Element Delay Line and contact transducers (5 to 20MHz)
- 5 Year Warranty, CE-Certified and Made in USA

TI-007X Series of ultrasonic wall thickness gauges provide high-resolution measurements on thin-wall metal and plastics. Their IP65 rated, extruded aluminum housing is sealed for excellent environmental protection, assuring trouble-free use in the toughest field and production environments.

Using a single element delay tip transducer, the TI-007X Series gauges will measure thin materials and automatically remove any coatings in Echo-Echo Mode (E-E) as well as automatically switch to Interface Echo Mode (I-E) when measuring thicker materials. For measuring plastics, the user would select Plastic Mode (PLAS) and use the optional Graphite Delay Line Tip.

The TI-007X Series can be used with single element contact transducers for wall thickness measurements up to 36" (923 mm).

**TI-007DLX gauge includes built-in data-logging for 10,000 data values stored in up to 40 batches with 250 values/batch with USB Output.**

#### The complete kit includes:



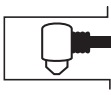
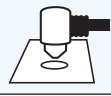
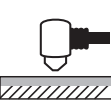
TI-007X Series gauge, probe, 4 oz. bottle of coupling fluid, 2 AA batteries, USB-C data output cable, NIST-traceable calibration certificate and instruction manual—all in a foam-fitted carrying case.



<b>Standard Range</b>	0.0060" to 1.000" (0.150 to 25.40mm) — with delay line transducer measuring steel actual range with vary with material type and transducer
<b>Overall Range</b>	up to 36.00" (923.0mm) - with single element contact transducers actual range with vary with material type and transducer
<b>Resolution</b>	0.0001" (0.001mm) / 0.001" (0.0 mm), User-selected units and resolution
<b>Display</b>	Multi-function 7 segment 4.5 digit liquid crystal display with Back-light. Bar graph indicates stability of reading
<b>Velocity Range</b>	0.0120 to .7300 in/μs (305 to 18,542 m/sec)
<b>Probe (Standard)</b>	1/4" diameter, 15 MHz delay line transducer with cable (p/n T-402-5507)
<b>Probe (Optional)</b>	Various Single Element Delay Line and Contact Transducers (5 to 20MHz)
<b>Cable</b>	4 ft. (1.2 m) with Microdot/Lemo00 connector
<b>Measuring Modes</b>	Pulse-Echo (P-E), Echo-Echo (E-E), Interface Echo (I-E), Plastics (PLAS), Differential, Alarm, Scan and Velocity (VX)
<b>Gain</b>	Automatic time dependent gain (TDG) with manual override
<b>Output</b>	<i>TI-007X:</i> USB single value only (no internal memory) <i>TI-007DLX:</i> USB built-in datalogging for 10,000 data values stored in up to 40 batches with 250 values/batch
<b>Output (Optional)</b>	RS-232 and Bluetooth (optional)
<b>Display Update</b>	10 Hz (10 updates/sec)
<b>Housing</b>	Extruded aluminum body with nickel-plated aluminum end caps (gasket sealed)— IP65
<b>Operating Temp</b>	-22 to 167°F (-30 to 75°C)
<b>Battery Type</b>	2x AA 1.5V alkaline, 1.2V NiCad, or 1.5V lithium AA cells (rechargeable batteries can be used)
<b>Battery Life</b>	Typically operates for 35 hours on alkaline and 18 hours on NiCad (continuous use)
<b>Weight</b>	11 ounces (308 grams)
<b>Dimensions</b>	2.5 x 5.17 x 1.25" (64 x 131 x 32mm)
<b>Warranty</b>	<i>Gauge:</i> 5 Years <i>Probes:</i> 90 Days



### Measuring Limits

	Minimum Radius for Convex Surfaces	0.350" (8.89mm)
	Minimum Radius for Concave Surfaces	3" (76.2mm)
	Minimum Headroom	1" (25.0mm)
	Minimum Sample Diameter	0.150" (3.8mm)
	Minimum Substrate Thickness - F	na
	Minimum Substrate Thickness - NFe	na

### Accessories

<b>A-302-6002 Protective Rubber Boot</b> <ul style="list-style-type: none"> <li>Built-in Stand</li> <li>Hand and Shoulder Straps</li> </ul>	
<b>CF-12 Coupling Fluid</b> <ul style="list-style-type: none"> <li>Temp Range: 0 to 200 °F (-18 to 93 °C)</li> </ul>	
<b>SB Step Block Steel Test Blocks without certification</b> <ul style="list-style-type: none"> <li>Fabricated from 1018 Steel</li> <li>Supplied without certification</li> </ul>	
<b>SB-Series Certified Step Blocks</b> <ul style="list-style-type: none"> <li>Precision machined &amp; finished</li> <li>Includes wooded storage box</li> <li>Includes NIST traceable Calibration Certificate</li> </ul>	