

# ZX-3, ZX-5 (& ZX5-DL) Series

**Thickness Gauges  
Performance & Simplicity!**

## Platform:

- Powered by: 120MHz FPGA timing
- 150 volt square wave pulser
- Pulse-echo measurement
- Adjustable gain (40-52dB), in 3dB steps (vlow, low, med, high, vhi)
- Selectable manual or auto zero
- High speed scan mode
- Dual element transducers (1-10MHz options)
- Low temperature custom LCD display (-22 F / -30C)
- USB-C connectivity (ZX-5 series)
- CDC compatible serial over USB. Optional serial RS232 or bluetooth module (ZX-5)
- Data Storage: 32 megabit flash memory (ZX-5 DL)
- IP65 protection rating
- 5 year limited warranty



# ZX-3, ZX-5 & ZX5-DL Series Thickness Gauge

**ZX-3, ZX-5 & ZX5-DL** series of thickness gauges offer a **performance solution built to withstand the roughest industry conditions**. The features included in the ZX Series offer a quality tool that will meet or exceed your application requirements. Our 5 year limited warranty indicates how we feel about the reliability and durability of the ZX Series gauges.

**ZX-3, ZX-5 & ZX5-DL** Provide Capability to **adjust gain setting** (VLOW, LOW, MED, HIGH, VHI) 40~52dB range in 3dB step to compensate for various materials and applications, apart from ability to select from 8 material types + 2 custom for fast work across materials.

**ZX-5** Provides additional capability of a velocity gauge for **nodularity testing**, as the velocity can be associated with density used to determine hardness/ strength of a material, typically required in castings. Additionally alarm setting.

**ZX5-DL** Additionally provides all of the above features plus Datalogging which server useful in **material condition assessment** when doing audits.

## Applications:

- Corrosion & Pitting
- Tube & Pipe
- Tanks
- Boilers
- Glass
- Variety of Applications

## SPECIFICATIONS

### Physical

**Weight:**  
11 ounces (with batteries).

**Size:**  
Width (2.5 in / 63.5 mm)  
Height (5.17 in / 131.3 mm)  
Depth (1.24 in / 31.5 mm)

**Operating Temperature:**  
-22 to 167F (-30 to 75C).

**Case:**  
Extruded aluminum body with nickel-plated aluminum end caps (gasket sealed).

### Keypad

Sealed membrane that is resistant to both water and petroleum products.

Nine tactile-feedback keys.

### Transducer

Dual-element (transmit and receive).

1 to 10 MHz frequency range.

Locking quick disconnect LEMO connectors.

4 foot cable.

Custom transducers available for special applications.

### Warranty

5 year limited.



### Power Source

Two 1.5V alkaline, 1.2V NiCad, or 1.5V Lithium AA cells.

Typically operates for 45 hours on alkaline and 23 hours on NiCad.

Low battery indicator on display. Auto shut-off after 5 minutes of inactivity.

Line power USB-C connected to PC or power adapter (ZX-5 series).

### Display

Multi-function 7 segment 4.5 digit liquid crystal display with 0.500 in digit height. Two 0.125 in 14 segment fields for labels and values, and one 7 segment field for labels and values. Additional icons to indicate features and modes.

Backlight is selectable on/off/auto, and selectable brightness (Lo, Med, Hi) options.

Bar graph indicates stability of reading.

### Data

Sequential data storage, 40 files of 250 readings per file, for 10,000 readings (ZX-5 DL).

### Software

Comes complete with USB download cable (ZX-5 DL). No software required, comma separated file type (.csv).

### Certification

Factory calibration traceable to NIST & MIL-STD-45662A.

### Measuring

**Range:**  
Measures from 0.025 to 36.00 inches (0.63 to 914.4 millimeters). Range dependent on material and transducer type.

**Units:** English & Metric

**Resolution:**  
0.001 inches (0.01 millimeters)

**Velocity Range:**  
0.0120 to .7300 in/μs  
(305 to 18,542 m/sec)

**PRF:** 200Hz

**Display Update Rate:** 10Hz

**Gain:** 40-52dB range in 3dB steps.

### Features

**Zero:**  
Manual or auto zero option.

**Probe Diameter:**  
Selectable probe diameter for improved linearity.

**High Speed Scan:**  
Display the lowest reading found during a scan. Scan speed at 100Hz.

**Differential Mode:**  
Display the +/- difference from a nominal value entered (ZX-5 series).

**Alarm Mode:**  
High & low alarm limits with audible and visual indicators (ZX-5 series).

**VX velocity:**  
Measure in terms of velocity for nodularity testing (ZX-5 series).