

DAKOTA ULTRASONICS

ZX Series

Fixed Velocity Thickness Gauges



Highlights:

- ▶ Easy to operate.
- ▶ Pulse-echo measurement.
- ▶ Dual element transducers (1-10MHz options).
- ▶ 120MHz FPGA timing.
- ▶ 150 volt square wave pulser.
- ▶ Low temperature custom LCD display (-22 F / -30C).
- ▶ Adjustable material velocity.
- ▶ Selectable material list (ZX-2 only).
- ▶ IP65 protection rating.
- ▶ 5 year limited warranty.

ZX-1 & ZX-2 THICKNESS GAUGES

The **ZX-1 & 2** are basic fixed velocity gauges that require no special training to operate. Calibration is done by simply scrolling to a known material velocity, or selecting a common material from a list of material types in the **ZX-2**. The gauges were designed and built to withstand the roughest industry conditions, are affordable, and backed by a 5 year limited warranty. If you're looking for a quality instrument to reliably meet or exceed your application expectations, look no further.

S P E C I F I C A T I O N S

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.
Seven or eight 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.

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.
Unit turns off automatically
when battery is too low to
operate reliably.

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.

Certification

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

Warranty

5 year limited.

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/ μ s
(305 to 18,542 m/sec)

PRF: 200Hz

Display Update Rate: 10Hz

Velocity Settings:

ZX-1: Adjustable on keypad.

ZX-2: Adjustable on keypad and
selectable from 8 factory presets
and 2 programmable custom
velocity options.

Velocity Chart	in. / mm
1. Steel 4340	.2330 / 5918
2. Stainless 303	.2230 / 5664
3. Aluminum 2024	.2510 / 6375
4. Cast Iron	.1800 / 4572
5. Plexiglass	.1060 / 2692
6. PVC	.0940 / 2388
7. Polystyrene	.0920 / 2337
8. Polyurethane	.0700 / 1778
9. Custom	
10. Custom	



MADE IN THE USA

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