DAKOTA ULTRASONICS

ZX-6 Series

Multi-Echo Thickness Gauges

When good just isn't enough!

Specifications:

- Powered by: 120MHz FPGA timing.
- 150 volt square wave pulser.
- Pulse-Echo (flaw) & Echo-Echo (thru-paint) measurement modes.
- Adjustable gain (40-52dB), in 3dB steps (vlow, low, med, high, vhi).
- Time dependent gain (TDG).
- Selectable manual or auto zero.
- Dual element transducers (1-10MHz options).
- Low temperature custom LCD display (-22 F / -30C).
- USB-C connectivity.
- CDC compatible serial over USB. Optional serial RS232 or bluetooth module (ZX-6).
- Data Storage: 32 megabit flash memory (ZX-6 DL).
- IP65 protection rating.
- 5 year limited warranty.

SOUND SOLUTIONS

ZX-6 SERIES THICKNESS GAUGES

The **ZX-6 series** gauges are at the top of the **ZX** line of basic thickness gauges. They combine a standard pulse-echo flaw detection measurement mode with a multi-echo through paint mode for use on materials with epoxy based coatings, and eliminate the error from the coating without having to remove it. They are equipped with adjustible gain, as well as auto Time Dependent Gain in both measurement modes. Our 5 year limited warranty indicates how we feel about the durability and reliablity of the **ZX-6 Series**.

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.

Certification

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

Warranty

5 year limited.

CE approved

Power Source

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

Typically operates for 35 hours on alkaline and 18 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.

Display

Multi-function 7 segment 4.5 digit liquid crystal display with 0.500 in digit height. Two 0.125 in14 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-6 DL).

Software

Comes complete with USB download cable (ZX-6 DL). No software required, comma separated file type (.csv).

Certification

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

Measuring

Pulse-Echo (P-E):
0.025 to 36.00 in (0.63 to 914.4 mm).

Measuring (Cont'd)

Echo-Echo (E-E):
0.100 to 6.00 in base metal, and coating 0.001to 0.075 in (0.0254 to 1.905mm).

Range dependent on material types and transducer frequency & diameter.

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.

Time Dependent Gain (TDG):
Used in both pulse-echo (P-E) and Echo-Echo (E-E) modes depending on transducer and frequency selected.

Features

Zero:
Manual or auto zero option.

Probe Types:
Selectable probe frequency & 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.

Alarm Mode:
High & low alarm limits with audible and visual indicatiors.

VX velocity:
Measure in terms of velocity for nodularity testing.

MADE IN THE USA

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