Dakota NDT
an Elcometer company

MX1-DL

Thickness Gauge

HIGHLIGHTS:

- Powered by a 100MHz DSP platform using FPGA technology.
- Screen Refresh rate of 25Hz.
- Manual or AGC gain, depending on measure mode selected (50 dB gain range).
- Linear time dependent gain (TDG) built built into each transducer type.
- Display views: Large Digits or B-Scan (cross section).
- Measure modes: (P-E) pulse-echo (flaws & pits) and (E-E) echo-echo (thru-paint).
- Dual element style transducers.
- Memory: 4Gb internal.
- Windows® PC & OSX interface software.
- USB-C connectivity.

DAKOTA MX1-DL THICKNESS GAUGE

The Dakota MX1-DL Corrosion Thickness Gauge range have large, easy to read displays and provides users with digital and B-Scan options for accurate interpretation of measurements.

SPECIFICATIONS

PHYSICAL

Weight:

13.5 ounces (with batteries).

Size:

2.5 W x 6.5 H x 1.24 D inches

(63.5 W x 165 H x 31.5 Dmm).

Operating Temperature:

-14˚ to 140˚F (-10˚ to 60˚C).

Keyboard:

Membrane switch with twelve tactile keys.

Case:

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

Display:

1/8in VGA grayscale display (240 x 160 pixels); viewable area 2.4 x 1.8in (62 x 5.7mm); EL backlit (on/off/auto invert).

ULTRASONIC SPECIFICATIONS

Measurement Modes:

Pulse-Echo (flaws, pits).

Echo-Echo (thru-paint).

Pulser:

150 volt square wave pulser.

Receiver:

Manual or AGC gain control with 50dB range, depending on mode selected.

Timing:

Precision TCXO timing with single shot 100MHz 8 bit ultra low power digitizer.

TRANSDUCER

Transducer Types:

Dual Element (1 to 10 MHz).

Locking quick disconnect LEMO “00” connectors.

Standard 4 foot cable.

Custom transducers and cable lengths available for special applications.

DISPLAY

Display Views:

Large Digits: Standard thickness view;

Digit Height: 0.700 in (17.78mm).

B-Scan: Time based cross section view.

Display speed variable (10 to 200 readings per second).

Scan Bar: Speed 10Hz. Viewable in B-Scan and Large Digit views.

Bar Graph: Indicates stability of measurement. Viewable in B-Scan and Large Digit views.

MEASURING

Range:

Pulse-Echo Mode (P-E) - (Pit & Flaw Detection) measures from 0.025 to 100 ft. (0.63 to 30.48 M).

Echo-Echo Mode (E-E) - (Thru Paint & Coatings) measures from 0.100 to 6.0 in (2.54 to 152.4mm). Range will vary +/- depending on the coating.

Resolution: +/- .001 inches (0.01mm).

Velocity Range:

0.0122 to 0.7300 inches/µs

309.88 to 18542 meters/sec

Single and Two point calibration option, or selection of basic material types.

Units: English & Metric

POWER SOURCE

Line power: USB to PC or power outlet.

Batteries:

Three AA cells. Alkaline - 35 hrs, Nicad - 10 hrs and NI-MH - 35hrs.

Auto power off if idle 5 minutes.

Battery status icon.

CERTIFICATION

Factory calibration traceable to NIST & MILSTD- 45662A.

MEMORY

Data Structure:

Grid (alpha numeric)

Screen Capture:

Bitmap graphic capture for quick documentation (.tif).

OBSTRUCT to indicate inaccessible locations.

Capacity:

4Gb internal memory.

Data Output:

USB-C 1.1 PC & OSX connectivity.

FEATURES

Setups:

64 custom user-definable setups; Factory setups can also be edited by the user.

Selectable Transducers:

Selectable transducer types with built-in dual path error correction for improved linearity.

Alarm Mode:

Set Hi and Lo tolerances with audible beeper and visual LEDs.

Scan Mode:

Takes 250 readings per second and displays

the minimum reading found when the transducer is removed.

WARRANTY

2 year limited.

REPLACEMENT

MX1-DL replaces MMX-7 & CG70BDL

CE UKCA

MADE IN THE USA

Dakota NDT

an Elcometer company

1500 Green Hills Road, #107, Scotts Valley, CA 95066 global.sales@dakotandt.com www.dakotandt.com

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an Elcometer company

MX2-DL

A/B SCAN THICKNESS GAUGE

HIGHLIGHTS:

- Powered by a 100MHz DSP platform using FPGA technology.
- Screen Refresh rate of 25Hz.
- Manual or AGC gain, depending on measure mode selected (50dB gain range).
- Linear time dependent gain (TDG) built into each transducer type.
- Display veiws: RF, +/- Rectified, B-Scan (cross section), or Large Digits.
- Two independent gates.
- Measure modes: (P-E) pulse-echo (flaws & pits) and (E-E) echo-echo (thru-paint).
- Dual element style transducers.
- Memory: 4Gb internal.
- Windows® PC & OSX interface software.
- USB-C connectivity.

DAKOTA MX2-DL THICKNESS GAUGE

The Dakota MX2-DL Corrosion Thickness Gauge has a large, easy to read display and provides users with A and B-Scan options for accurate interpretation of measurements.

SPECIFICATIONS

PHYSICAL

Weight:

13.5 ounces (with batteries).

Size:

2.5 W x 6.5 H x 1.24 D inches

(63.5 W x 165 H x 31.5 D mm).

Operating Temperature:

-14˚ to 140˚F (-10˚ to 60˚C).

Keyboard:

Membrane switch with twelve tactile keys.

Case:

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

Display:

1/8in VGA grayscale display (240 x 160 pixels); viewable area 2.4 x 1.8in (62 x 5.7mm); EL backlit (on/off/auto invert).

ULTRASONIC SPECIFICATIONS

Measurement Modes:

Pulse-Echo (flaws, pits).

Echo-Echo (thru-paint).

Pulser:

Square wave pulser with adjustable pulse width (spike, thin, wide).

Receiver:

Manual or AGC gain control with 50dB range, depending on mode selected.

Timing:

Precision TCXO timing with single shot 100MHz 8 bit ultra low power digitizer.

Pulse Repetition Frequency - 250Hz.

DISPLAY

Display Views:

A-Scan: Rectified +/- (flaw view) RF (full waveform view). Refresh rate at 25Hz.

B-Scan: Time based cross section view. Display speed variable (10 to 200 readings per second).

Large Digits: Standard thickness view; Digit Height: 0.700 in (17.78mm).

Scan Bar: Speed 10Hz. Viewable in B-Scan and Large Digit views.

Bar Graph: Indicates stability of measurement.

POWER SOURCE

Line power: USB to PC or power outlet.

Batteries:

Three AA cells. Alkaline - 35 hrs, Nicad - 10 hrs and NI-MH - 35hrs.

Auto power off if idle 5 minutes.

Battery status icon.

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Range:

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Resolution: +/- .001 inches (0.01mm).

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Screen Capture:

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Capacity:

4Gb internal memory.

Data Output:

USB-C 1.1 PC & OSX connectivity.

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