



MVX A/B SCAN ULTRASONIC THICKNESS GAUGE

The MVX is equipped with multiple-viewing options: RF Waveform, +/- Rectified Waveform, Time-based B-Scan and Large Digits. The A-Scan rectified mode is commonly used for detecting flaws/pits in pulse-echo mode and measuring thru-paint and coatings in the echo-echo mode. The B-Scan displays a cross section of the test material and is commonly used to display the profile of the bottom surface. The MVX is equipped with an alpha-numeric data logger, high-speed scan feature (32 measurements per sec.) and the ability to store up to 64 custom user-defined setups.

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).

Data Output:

Bi-directional RS232 serial port; Windows® PC interface software.

Display:

1/8in VGA grayscale display (240 x 160 pixels); viewable area 2.4 x 1.8in (62 x 45.7mm); 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 40dB range, depending on mode selected.

Timing:

20 MHz with ultra low power 8 bit digitizer.

Certification

Factory calibration traceable to national standards.

Warranty

2 year limited

Power Source

Three 1.5V alkaline or 1.2V NiCad AA cells. Typically operates for 150 hours on alkaline and 100 hours on NiCad (charger not included). Auto power off if idle 5 minutes. Battery status icon.

Measuring

Range:

Pulse-Echo Mode: (Pit & Flaw Detection) measures from 0.025 9.999 inches (0.63 to 254 millimeters).

Echo-Echo Mode: (Thru Paint & Coatings) measures from 0.050 to 4.0 inches (1.27 to 102 millimeters). Range will vary +/- depending on the thickness of coating.

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

Velocity Range:

.0492 to .3936 inches/ms
1250 to 9999 meters/sec
Single and Two point calibration option, or selection of basic material types

Units: English & Metric

Display

Display Views:

A-Scan Rectified +/- (flaw view)
RF (full waveform view) .

B-Scan Cross section view; display speed of 15 secs per screen.

Large Digits Standard thickness view; Digit Height: 0.400 in (10mm).

Scan Bar Thickness 6 readings per second; Viewable in B-Scan and Large Digit views.

Repeatability Bar Graph Bar graph indicates stability of reading.

Data Logger (Internal)

12,000 readings and waveforms (alpha numeric storage). OBSTRUCT to indicate inaccessible locations.

Memory:

16 megabit non-volatile ram

Transducer

Transducer Types:

Dual Element (1 to 10 MHz). Locking quick disconnect "00" LEMO connectors. Standard 4 foot cable. Custom transducers and cable lengths are available for special applications.

Features:

Setups:

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

Gates:

Single gate in pulse-echo mode, or single gate with holdoff in echo-echo mode; Adjustable threshold.

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.

Fast-Scan Mode:

Takes 32 readings per second and displays the minimum reading found when the transducer is removed.