MVX

A/B Scan Ultrasonic
Thickness Gauge

▶ Powered by a 20MHz platform with ultra low power 10 bit digitizer.

▶ 1/8"VGA grayscale display (240 x 160 pixels). Screen Refresh rate of 25 Hz.

▶ Manual or AGC gain option, depending on measure mode selected, 40 dB gain control.

▶ Display veiws: RF, +/- Rectified, B-Scan (cross section), or Large Digits.

▶ Two independent gates with shared threshold.

▶ Measure modes: (P-E) pulse-echo (flaws & pits), (P-E GT) pulse-echo (flaws & pits w/blanking gate & treshold), and (E-E) echo-echo (thru-paint).

▶ Data Storage: 12,000 page capacity (each page contains waveform, measurement, and all gauge settings).

▶ Windows® PC interface software.

▶ Multiple language support.

▶ 2 year limited warranty.

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 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 40dB range, depending on mode selected.

Timing:
20 MHz with ultra low power 10 bit digitizer.

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.

Bar Graph: Indicates stability of measurement.

Power Source

Three 1.5V alkaline or 1.2V NiCad AA cells.

Typically operates for 35 hours on alkaline and 10 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.

Flaw Prove Up: Basic mode using angle beam transducers.

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

Transducer

Transducer Types:

Dual Element (1 to 10 MHz).

Single Element (1 to 10 MHz) - converter cable required.

Locking quick disconnect LEMO "00" connectors.

Standard 4 foot cable.

Custom transducers and cable lengths available for special applications.

Memory

Data Structure:

Grid (alpha numeric)

Cell contents:

12,000 readings , A or B Scan image, & gauge settings for every reading.

OBSTRUCT to indicate inaccessible locations.

Memory:

16 megabit non-volatile ram.

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.

Certification

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

Warranty

2 year limited

CE approved

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