The UMX-2 Underwater Material & Coating Thickness Gauge

HIGHLIGHTS:
- 1000 ft. (300 m) depth rating.
- Probe types: Single Membrane & Dual Element.
- Measurement modes: Pulse-Echo, Pulse-Echo w/Coating, Echo-Echo, Triple-Echo (TCG).
- Data Storage: Alpha numeric & Sequential w/ID.
- Windows PC software included.
- 3 year limited warranty.

Captures an A-Scan waveform snapshot with every measurement; viewable using our Windows PC interface software.
UMX-2 SPECIFICATIONS

Physical
Size:
Length (9.0 in/229 mm).
Diameter (2.375 in/60.33 mm).
Weight:
1.5 lbs (0.680 kg) with 3 AA batteries.
Keyboard:
Single button, magnetically coupled switch.
Operating Temperature:
-20 to 140°F (-29C to 60C).
Underwater Case:
High strength transparent plastic housing. Depth rating of 1000 feet (300 meters).
Data Output:
Bi-directional RS232 serial port, with USB converter. Windows® PC interface software.
Display:
1/2 in (12.7 mm) 4.5 digit LCD display.
3/8 in (9.5 mm) 6 alpha LCD display.
Both displays backlit (on/off/auto).
LED Lighting: 8 blue leds (on/off).

Ultrasonic Specifications
Measurement Modes:
Dual Element Probes
Pulse-Echo (P-E): Coating Off.
Pulse-Echo Coating (PECT): Coating On.
Echo-Echo (E-E): Thru-Paint.
Single Element Probes
Triple-Echo (TCg): Thru-Paint.
Pulser: Dual square wave pulser.
Receiver:
Dual receivers - manual or AGC gain control with 100 dB range.
Manual gain: Limited to 5 gain settings (vlow, low, med, high, vhigh (42 to 50 dB)).
AGC: Automatic gain setting.
Timing:
Precision 25 MHz TCXO with single shot 100 MHz 8 bit ultra low power digitizer.

Power Source
Three 1.5V alkaline or 1.2V NiCad AA cells.
Typically operates for 50 hours on alkaline and 20 hours on NiCad (backlight off). 15 hours on alkaline and 8 hours on Nicad (backlight on).
Auto power off if idle 5 min.
Battery status displayed on power up.

Measuring
Pulse-Echo Mode (P-E) - (Pit & Flaw Detection) measures from 0.025 to 19.999 inches (0.63 to 508 millimeters).
Pulse-Echo Coating Mode (PECT) - (Material, Coating, Pit & Flaw Detection): Material: 0.025 to 19.999 inches (0.63 to 508 millimeters). Coating: 0.001 to 0.100 inches (0.01 to 2.54 millimeters).
Echo-Echo Mode (E-E) - (Thru Paint & Coatings) measures from 0.100 to 4.0 inches (2.54 to 102 millimeters). Will vary based on coating.
Triple-Echo (TCg) - 0.040 to 6.00 (1 to 152 millimeters) inches in steel. Range will vary based on coating thickness, material type, and probe.
Resolution:
+/- 0.001 inches (0.01 mm).
Units:
English & Metric
Velocity Range:
0.0492 to 0.5510 in/us
1250 to 13995 meters/sec
8 fixed and 1 programmable Material Velocities (in/us):
  1. Aluminum 2024 .251
  2. Steel 4340  .233
  3. Stainless Steel 302 .223
  4. Iron  .232
  5. Cast Iron  .180
  6. PVC  .094
  7. Polystyrene  .092
  8. Polyurethane  .070
  9. Custom  User

Computer Interface
RS232 serial interface. PC software & USB converter cable included.

Display
Segmented Displays:
4.5 Digit LCD - Primary measurement display.
6 Character LCD - Displays menu options.
Repeatability Bar graph - Bar graph indicates stability of reading.

Data Storage
File Formats:
Grid (alpha numeric).
Sequential (auto identifier).
Programming: Storage capacity of 1 file template. Size and dimension specified by the user.
Storage capacity: 5,000 readings, settings, and waveform graphics.
Memory:
32 megabit non-volatile ram.

Transducer
Auto Probe Zero: Applies to dual element probes only.
Transducer Types
Dual Element: 1 to 10 MHz frequency range. Custom auto recognition probes. (flaw & pit detection).
Single Element: 1 to 10 MHz frequency range - (General purpose).
LEMO underwater connectors.
Standard 4 foot cable.
Custom transducers and cable lengths available for special applications.

Certification
Factory calibration traceable to NIST & MIL-STD-45662A.
IP68 rating

Warranty
3 year limited.

MADE IN THE USA

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