STANLAY™

CMX Series v2.0
Material & Coating
Thickness Gauges

Performance, Power & Perfection!

Electronic Platform:

- Powered by a 100MHz DSP platform using FPGA technology.
- Two Channels - Dual pulsers and receivers.
- Up to 250Hz pulse repetition rate.
- Display update rate of 25 Hz.
- Adjustable gain (40 to 52 dB) - vlow, low, med, hi, vhi.
- Automatic gain control (AGC).
- Time dependent gain (TDG).
- 4 gigabyte internal SD memory card.

Features:

- Measurement modes: Pulse-Echo, Pulse-Echo w/Coating, Pulse-Echo w/Temperature Compensation, Echo-Echo, Echo-Echo Verify & Coating Only
- Automatic: probe zero, probe recognition, and temperature compensation
- Stores up to 64 custom setups for specific applications
- High Speed Scan of up to 250 readings per second
- Audible/visual alarm with hi and lo limit settings
- Built-in differential mode for QC inspections
- Time based B-Scan feature for cross section material scans
- Data storage formats: Alpha numeric grid and sequential w/auto identifier
- Windows PC software included
- 2 year limited warranty.

CMX Material & Coating Thickness Gauge

The **CMX** & **CMX-DL** gauges are one of the highest performance thickness gauges in the industry offering a variety of measuring modes for measuring :

- Coating thickness
- Simultaneous, Material & Coating thickness
- B- scan Cross section view
- Material thickness
- Material thickness through coating

SPECIFICATIONS

Physical

Size:
Width (2.5in/63.5 mm)
Height (6.5 in/165 mm)
Depth (1.24 in/31.5 mm)

Weight: 13.5 ounces (with batteries).

Keyboard: Membrane switch pad with twelve tactile keys.

Operating Temperature:
14 to 140F (-10C to 60C)

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

Data Output: USB-C 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).

Ultrasonic Specifications

Measurement Modes:

Coating Off: Pulse-Echo (P-E)

Coating On: Pulse-Echo Coating (PECT)

Temp Comp: Pulse-Echo Temperature Compensation (PETP)

Thru-Paint: Echo-Echo (E-E)

Thru-Paint Verify: Echo-Echo Verify (E-EV)

Coating Only: Coating (CT)

Pulser: Dual square wave pulsers.

Receiver: Dual receivers - manual or AGC gain control with 110dB range (limited).

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

Power Source

Line Power: USB to PC or power outlet.

Batteries: Three AA cells.

Alkaline - grayscale 35 hrs, color 12 hrs.
Nicad - grayscale 10 hrs, color 5 hrs.
NI-MH - grayscale 35hrs, color 12 hrs.

Power saving DIM (color), auto off 5 minutes. Battery status icon.

Transducer

Transducer Types:

Dual Element (1 to 10 MHz).

Locking quick disconnect "00" LEMO connectors.

Standard 4 foot cable.

Custom transducers and cable lengths available for special applications.

Measuring

Pulse-Echo Mode (P-E) - (Pit & Flaw Detection) measures from 0.025 to 48.0 inches (0.63 to 1219.2 millimeters).

Pulse-Echo Coating Mode (PECT) - (Material, Coating, Pit & Flaw Detection); Material: 0.025 to 48.0 inches (0.63 to 1219.2 millimeters). Coating: 0.001 to 0.100 inches (0.01 to 2.54 millimeters).

Pulse-Echo Temp Comp Mode (PETP) - (Pit & Flaw Detection) Auto temperature compensation - measures from 0.025 to 48.0 inches (0.63 to 1219.2 millimeters).

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

Echo-Echo Verify Mode (E-EV) - (Thru Paint & Coatings) measures from 0.100 to 1.0 inches (2.54 to 102 millimeters). Range will vary +/- depending on the coating.

Coating Only Mode (CT) - (Coating Thickness) Measures from 0.0005 to 0.100 inches (0.0127 to 2.54 millimeters). Range will vary +/- depending on the coating.

Resolution:

+/- 0.001 inches (0.01 mm)

Velocity Range:

0.0122 to 0.7300 inches/µs
309.88 to 18542 meters/sec

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

Units:

Display

Large Digits - Standard thickness view. Digit Height: 0.700 inches (17.78 millimeters).

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

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

Repeatability Bar Graph - Bar graph indicates stability of reading.

Feature Status Bar - Indicates features currently active.

Memory (CMX DL)

Log Formats: Grid (Alpha Numeric), or Sequential (Auto Identifier).

Capacity: 4 Gb internal SD card.

Screen Capture: Bitmap graphic capture for quick documentation (.tif).

OBSTRUCT to indicate inaccessible locations.

Connections

Output: Direct USB-C 1.1 PC connectivity.

Transducer Connectors: Two LEMO 00 connectors.

Certification

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

Warranty

2 year limited

CE approved

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Quality Management System
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