



# PMX2-DL & PMX3-DL

## Precision Thickness Gauge

### HIGHLIGHTS:

- ▶ Powered by a 100MHz DSP platform using FPGA technology.
- ▶ Adjustable 200 volt pulser: 100, 150 & 200 volts.
- ▶ Up to 250Hz pulse repetition rate (PRF).
- ▶ Variable pulse width (spike, thin & wide).
- ▶ 110dB gain range. Manual and Automatic (AGC), depending on measure mode selected.
- ▶ Time dependent gain (TDG), with variable start and slope.
- ▶ Impedance damping options (35, 50, 75, 300, 600 & 1500).
- ▶ Display Options: Grayscale 1/8 VGA (PMX2-DL), or AMOLED color 1/4 VGA (PMX3-DL).
- ▶ Screen refresh: B&W 25Hz, color 60Hz.
- ▶ Transducers: Single, Delay Line & Pencil options.
- ▶ Memory: 4Gb internal memory.
- ▶ USB-C connectivity.

# DAKOTA PMX PRECISION THICKNESS GAUGE

The Dakota PMX Precision Thickness Gauge can display the thickness value with A and B-Scan displays, allowing users to accurately assess a wide range of materials.

## SPECIFICATIONS

### PHYSICAL

**Size:**

Width (2.5in/63.5mm)

Height (6.5 in/165mm)

Depth (1.24 in/31.5mm)

**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 (Two Options):**

PMX2-DL: 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).

PMX3-DL: 1/4 VGA AMOLED color display (320x240 pixels). Viewable area 1.7 x 2.27 in (43.2 x 57.6mm). 60Hz screen refresh rate.

### ULTRASONIC SPECIFICATIONS

**Measurement Modes:**

**Pulse-Echo (P-E):** Contact transducers.

**Echo-Echo (E-E):** Contact transducers.

**Echo-Echo Verify (E-EV):** Contact transducers.

**Interface-Echo (I-E):** Delay Line & Pencil transducers.

**Interface-Echo-Echo (I-E-E):** Delay Line & Pencil transducers.

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

**Receiver:** Manual or AGC gain control with 110dB range, varies with mode selected. Adjustable damping (35, 50, 75, 300, 600 & 1500 ohms).

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

### POWER SOURCE

**Line Power:** USB-C to PC or power outlet.

**Batteries:** Three AA cells.

Alkaline - b&w 35 hrs, color 12 hrs.

Nicad - b&w 10 hrs, color 5 hrs.

NI-MH - b&w 35hrs, color 12 hrs.

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

### MEASURING

**Range:**

**Interface-Echo Mode:** Steel .050–1.0 inch (1.27–25.4mm); Plastics from .005 inch (.127mm).

**Interface-Echo-Echo Mode:** Steel .006–.500 inch (.152–12.7mm).

**Pulse-Echo Contact:** Steel .040 in. – 30.0 ft. (1mm – 9.14 M).

**Echo-Echo Contact:** Steel .100–3.0 ft. (2.54–91.44cm).

**Echo-Echo Verify Contact:** Steel .100–6.0 in. (2.54–152.4mm).

**Resolution (selectable):**

+/- .001 inch (0.01mm).

+/- .0001 inch (0.001mm).

**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

### DISPLAY

**Display Views:**

**A-Scan:** Rectified +/- (flaw view) RF (full waveform view). Refresh rate at 25Hz (b&w), 60Hz (color). Portrait & Landscape views (color only).

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

**Large Digits:** Standard thickness view; Digit Height: 0.400in (10mm), color 0.565in (14.35mm).

**Scan Bar:** Speed 10 to 33Hz. Viewable in B-Scan and Large Digit views.

**Bar Graph:** Measurement stability.

### MEMORY

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

**Capacity:** 4 Gb internal memory.

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

**OBSTRUCT** to indicate inaccessible locations.

### TRANSDUCER

**Transducer Types:**

Single Contact, Delay Line & Pencil (1 to 25MHz).

Locking quick disconnect LEMO "00" connector.

Standard 4 foot cable, custom transducers and cable lengths available.

### FEATURES

**Setups:**

64 custom user-defined setups.

**Gates:**

3 adjustable gates, depending on measure mode selected.

**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.

### CONNECTIONS

**Output:** Direct USB-C 1.1 PC connectivity.

**Transducer Connector:** LEMO 00

### CERTIFICATION

Factory calibration traceable to NIST & MILSTD-45662A.

### WARRANTY

2 year limited.

### REPLACEMENT

PMX2-DL replaces PVX & PG70ABDL

PMX3-DL replaces PVX Colour



MADE IN THE USA



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