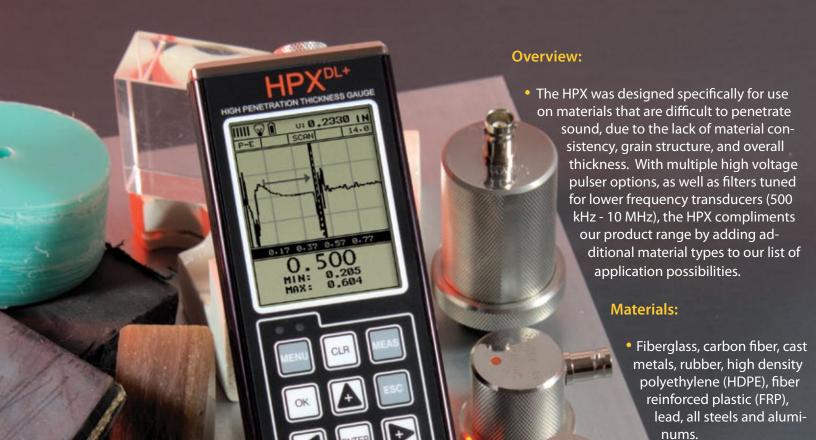
# DAKOTA ULTRASONICS

**Nothing But Power!** 

# The HPX DL+

**High Penetration A-Scan Thickness Gauge** 



DAKOTA ULTRASONICS

### **Applications:**

• Fiberglass sheets, pipes, storage tanks, aerospace composites, boat hulls, conveyor belts, composite plastics, etc.

# **HPXDL+ 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 kevs.

**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 5.7mm); EL backlit (on/off/auto invert).

#### **Ultrasonic Specifications**

**Measurement Modes:** 

Pulse-Echo (P-E): Contact transducers.
Echo-Echo (E-E): Contact transducers.
Echo-Echo Verify (E-EV): Contact transduc-

ers.
Pulser:

Spike - 200 volt adjustable. Square wave: 400 volt adjustable. Tone Burst: 400 volt adjustable with selectable frequency.

**Receiver:** 

Manual or AGC gain control with 110dB range, varies with mode selected. Adjustable damping (50, 75, 100, 300, 600 & 1500 ohms).

Frequency Range:

500 kHz to 10 MHz.

Timing:

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

**Power Source** 

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

**Batteries:** 

Three AA cells. Alkaline - 35 hrs, Nicad - 10

hrs and NI-MH - 35hrs.
\* Dependent on pulser & backlight settings.

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Auto power off if idle 5 minutes.

Battery status icon.

#### Measuring

Range:

\* Dependent on material type and consistency.

**Pulse-Echo Contact:** 

Steel .050 in. – 100.0 ft. (1.27 mm – 30.5 M). Composites .100 in. – 5.00 in. (2.54 mm – 127 mm).

**Echo-Echo Contact:** 

Steel .100-3.0 ft. (2.54-91.44 cm).

**Echo-Echo Verify Contact:** 

Steel .100-6.0 in. (2.54-152.4 mm).

Resolution (selectable):

+/- .01 inch (0.1 mm). +/- .001 inch (0.01 mm).

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 25 Hz.

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

**Large Digits:** Standard thickness view; Digit Height: 0.700 in (17.78 mm).

**Scan Bar:** Speed 10 Hz. 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 SD card.

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

OBSTRUCT to indicate inaccessible

locations.

#### **Transducer**

**Transducer Types:** 

Single Contact (1 to 10MHz) & Custom 500 kHz Delay Line (HPD1005B).

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 & MIL-STD-45662A.

Warranty

2 year limited.

(E approved

## MADE IN THE USA

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