Model **PVX** Ultrasonic Precision Thickness Gauge with A-Scan and B-Scan display capability.

Featuring:

Adjustable square wave pulser provides the flexibility necessary for both high resolution and penetration requirements.

Selectable viewing options provide the user with additional flexibility during operation: (RF waveform, +/- Rectified waveform, and Large Digits with Scan Bar.

Time based B-Scan feature displays a cross section of the test material. Displays the profile of the opposite surface of the material.

Adjustable resolution settings add to the **PVX** flexibility.

Ability to use a variety of single element transducers for specific applications: Standard Delay Line (acrylic and graphite tips for metals and thin plastics), Pencil Delay Line (tough access area on thin materials), and Contact transducers (variety of applications).

Hardware AGC gain control for multiple echo and thru-paint measurement.

Multiple calibration options: One Point, Two Point, or selection from a Material List.

16 factory setups and 48 user-defined setups. User defined setups can be edited for custom applications.

PVX is equipped with an alphanumeric data logger to provide increased versatility for those custom-reporting needs.

The high-speed scan feature speeds up the inspection process by making 32 measurements per second. Remove transducer from the test material and display the minimum measurement scanned.

Visual and audible alarm with hi and lo limit settings for specific application tolerances.

Auto find features locates the detection point(s) and adjusts the display settings to bring the waveform into view.

The **PVX** comes complete with Windows® PC software for data transfer to and from a PC.
2 year limited warranty

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SPECIFICATIONS

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:
1/8 in. VGA grayscale display (240 x 160 pixels).
Viewable area 2.4 x 1.8 in. (62 x 45.7mm)
EL backlit (on/off/auto)

Ultrasonic Specifications

Measurement Modes:
Pulse-Echo (Precision General purpose)

Interface-Echo (Precision - Thick materials)

Echo-Echo (Precision - Thin materials & 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:
40 MHz with ultra low power 8 bit digitizer

Power Source

Three 1.5V alkaline or 1.2V NiCad AA cells

Typically operates for 150 hours on alkaline and 100 hours on NiCad (charger not included)

Auto power off if idle 5 min

Battery status meter

Measuring

Range:

Interface-Echo Mode: Steel 0.05 - 1.0 in (1.27mm - 25.4mm)
Plastics from .005 in. (127mm)

Echo-Echo Mode: Steel .006 -.500 in (.15mm - 12.7mm)

Pulse-Echo Contact: Steel .040 in - 10.0 in (1mm - 254mm)
Plastics from .010 in (.254mm)

Echo-Echo Contact: Steel thru-paint .100 in - 3.0 in (2.54mm - 76.2mm)

Resolution: (selectable)
+/- .001 in (0.01 mm)
or +/- .0001 in - (.001mm)

Velocity Range:
.0492 to .3936 in/ms
1250 to 9999 meters/sec

Single and Two point calibration option, or selection of basic material types

Units: English & Metric

Display Views

A-Scan Rectified +/- (half wave view) RF (full waveform view)

B-Scan Time based cross section view. Display speed of 15 seconds per screen

Large Digits Standard thickness view. Digit Height: 0.400 in (10mm)

Scan Bar 6 readings per second. Viewable in B-Scan and Large Digit views

Repeatability Bar Graph Bar graph indicates stability of reading

Data Logger (Internal)

12,000 readings and waveforms (alpha numeric storage)

OBSTRUCT to indicate inaccessible locations

Memory:
16 megabit non-volatile ram

Transducer

Transducer Types:

Single Element (1 to 20 MHz)

Locking quick disconnect " 00" LEMO connector

Standard 4-foot long integral cable

Custom transducer and cable lengths available

Features

Setups:
16 factory and 48 user-defined setups

Gates:
Single gate in pulse-echo mode
Single gate with hold-off in interface-echo, echo-echo, and plastics mode. Adjustable threshold

Multiple Measurement Modes:
Selectable modes for use with a variety of applications

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. Display continuously updates while scanning

Certification

Factory calibration:
traceable to national standards

Warranty

2 year limited