



FEATURES

- General-purpose thickness gage for metals, plastics, glass, rubbers, composites, and other materials
- Internal, alphanumeric, file-based data logger stores 18,000 thickness measurements or 1,750 waveforms
- Large, backlit LCD waveform display
- Wide thickness range from 0.080 mm to 500.000 mm (0.003 in. to 20.000 in.), depending on material
- Resolution up to 0.001 mm (0.0001 in.)
- Uses contact, delay line, and immersion transducers
- Application Auto-Recall with default and custom configurations
- Handheld and lightweight
- Min/Max mode
- Hi/Low alarm
- Metric and English display units

Precision Thickness Gage with Waveform Display

The Panametrics 25DL PLUS ultrasonic precision thickness gage is a cost-effective solution in applications where the opposite surface of test material is difficult or impossible to reach. An important benefit of this handheld gage is its ability to perform thickness measurements on many materials in a wide variety of shapes and sizes. A large LCD displays the live ultrasound waveform and the thickness measurement. It is intuitive to use, with its color-coded keypad and direct-access number keys.

Another of the many unique features of this gage is Application Auto-Recall, which allows users to select and recall any of the stored standard or custom transducer configurations in the gage's memory. This allows to easily switch among the full

line of contact, delay line, and immersion transducers compatible with the 25DL PLUS, solving an almost infinite number of measurement problems.

INTERNAL DATA LOGGER

The 25DL PLUS' internal data logger stores, recalls, and transmits 1,750 waveforms and more than 18,000 thickness measurements with alphanumeric identification codes.

WAVEFORM DISPLAY

The A-scan shows the live waveform and the thickness measurement, which is ideal for turbine blade inspections or any other application where users must ensure proper transducer alignment.



25DL PLUS Specifications*

MEASUREMENTS

Mode 1: Time interval between the excitation pulse and the first backwall echo, using contact transducers.

Mode 2: Time interval between the first interface echo after the excitation pulse and the first backwall echo, using delay line or immersion transducers.

Mode 3: Time interval between successive backwall echoes following the first interface echo after the excitation pulse, using delay line and immersion transducers.

Thickness measurement ranges:

Steel: 0.15 mm to 500.00 mm
(0.006 in. to 20.000 in.)
Plastic: 0.08 mm to 50.00 mm
(0.003 in. to 2.000 in.)

Thickness range depends on material, transducer, surface conditions, and selected configuration. Extended thickness ranges are possible using custom configurations.

Material velocity range:

0.5080 mm/μs to 13.9979 mm/μs
(0.02000 in./μs to 0.55110 in./μs)

Resolutions (keypad selectable):

LOW:	0.1 mm	0.01 in.
STANDARD:	0.01 mm	0.001 in.
HIGH:	0.001 mm	0.0001 in.

Measurement rates: 4, 8, 12, 16, or 20 measurements per second

Transducer frequency range:

2.25 MHz to 30.00 MHz

Differential modes:

Standard and Percent: Thickness difference and percentage difference between the actual measurement and a reference value.
Rate reduction: Displays the actual thickness and percentage difference from a set point. Both values can be stored in the internal data logger.

Min/Max mode: Works in conjunction with the Fast mode for rapid location of minimum or maximum thickness measurements and associated waveforms.

Alarm modes: 1) Standard Hi/Low
2) Previous thickness (absolute or percentage). Both modes with audible and visual indicators.

Application Auto-Recall: Automatically adjusts internal parameters and zero offset for a wide variety of transducers. Stores 25 standard transducer configurations and up to 35 custom transducer configurations.

Other standard 25DL PLUS features:

Calibration lock mode, Internal diagnostic test mode, metric/English units.

DISPLAY

Display: Backlit LCD with contrast adjustable through the keypad. Display area 102 mm x 86 mm (4.00 in. x 3.39 in.).

Backlight: Backlit electroluminescent display with power save feature.

Zoom mode: Expands the horizontal span of waveforms to the minimum range associated with each transducer and automatically centers the measured echoes.

Freeze mode: Freezes and unfreezes live A-scans with thicknesses.

Display Hold/Blank: Display blanks after last measurement or holds the measurement.

Rectification: RF, half-wave positive or negative, and full wave.

Waveform display range and delay control:

The horizontal span of the waveform is set at selected intervals with a fully adjustable delay.

POWER SUPPLY

Battery: Rechargeable, 6 V NiMH battery pack. Optional, replaceable AA alkaline cells.

Battery life: 40 hours under normal operating conditions, NiCd battery pack. AA alkaline cells, approximately 70 hours.

Battery recharge time: Four hours with the supplied charger.

Charger: External wall plug-in charger/AC Adapter for 100/115/230 VAC inputs.

Auto Power On/Off, Low battery indicator

GENERAL

Keypad: Sealed, color-coded keypad with tactile and audible feedback.

Multilanguage display: English, French, German, and Spanish

Operating temperature range: -10° C to 50° C (14° F to 122° F)

Dimensions (W x H x D):
138 mm x 238 mm x 38 mm
(5.450 in. x 9.375 in. x 1.500 in.)

Weight: 950 g (2.1 lb)

INTERNAL DATA LOGGER

Identifies, stores, recalls, clears, and transmits thickness measurements and gage configuration information through the full-duplex RS-232 serial port. The baud rate, word length, stop bits, and parity are adjustable from the keypad.

Maximum number of stored values:

Standard: 18,000 thickness measurements or 1,750 waveforms with thicknesses.

Location codes: 8-character file name and 16-character alphanumeric location code input. Multiple comments per location.

File structures: Seven standard or custom application-specific file structures.

Reports: On-gage reporting of the summary with statistics, Min/Max with locations, and file comparison. Onscreen comparison of current and previous measurements.

Onboard statistics calculator:

Allows statistical reporting directly to a serial printer

STANDARD PACKAGE

25DL PLUS ultrasonic precision thickness gage, AC or battery operation, 50-60 Hz, with internal alphanumeric data logger. Also includes a universal quick charger/AC adapter, transducer cable, test block, couplant, RS-232 I/O cable, carrying case, user's manual, and two-year limited warranty.

OPTIONAL ACCESSORIES

36DLP/SPC/KIT: Protective pouch with neck strap

Plus/RPC: Rubber boot with gage stand

GAGEVIEW: Interface program

25DLP/EW: Extended limited warranty, third year

2214E: Five-step test block, 1018 steel, English units: 0.100 in., 0.200 in., 0.300 in., 0.400 in., 0.500 in.; metric available

2213E: Five-step test block, aluminum, English units: 0.100 in., 0.200 in., 0.300 in., 0.400 in., 0.500 in.; metric available

OLYMPUS NDT INC. is ISO 9001 certified.

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