µP301HE PELT®

Multi-Layer Ultrasonic Thickness Gauge

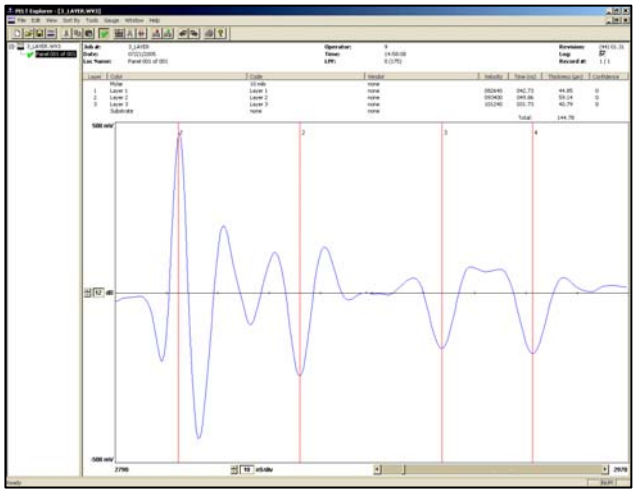
FEATURES

- **Measures thick, soft or attenuative coatings on composites, metal, wood and rubber.**
- **Measures coatings on textured or grit blasted substrates**
- **Instantly measures up to 3 layers simultaneously. Reports individual thickness and total thickness.**
- **Direct, non-destructive measurements eliminate the need for destructive analysis or specially prepared test samples.**
- **Portable operation of up to 8 hours with a removable and rechargeable battery.**

µP301 PELT HE (High Energy)

The µP301HE model PELT gauge is a high resolution, ultrasonic coating thickness measurement system. This handheld gauge uses state-of-the-art technology and is capable of picosecond resolution. The result is unparalleled precision and accuracy.

This advanced technology provides a high energy ultrasonic pulse and can be used to measure soft or attenuative coatings as well as thick coatings on virtually any substrate. The µP301HE can also be used to provide accurate measurements over grit blasted steel or textured substrates or on other materials where ultrasonic wave scattering is a problem.



PELT Explorer host PC software (included)

PELT Explorer software is a Windows® based host PC program that provides a powerful and easy to use interface to the µP301HE. Calibration information and measurement data can easily be transferred to and from the gauge.

PELT

The leader in multi-layer coating thickness gauges

Measurement Specifications

Measurement Method
Contact ultrasonic in accordance with ASTM standard E797-95

Couplant
Application dependent, usually water

Max. Layers
Three (3)

Calibrated Accuracy
± 1 micron (+/- 0.05 mils) or ± 2% of the coating thickness, whichever is greater.

Resolution *
1 micron (0.001 mm, 0.04 mils)

Minimum Thickness *
Mid coatings: 15 microns (0.015 mm, 0.6 mils)
Single coatings: 15 microns (0.015 mm, 0.6 mils)
Top coatings: 25 microns (0.025 mm, 1.0 mils)

Maximum Thickness **
Standard probe: 1.1mm (.044 in.)
Optional probe: 10 mm (.394 in.)

Measurement Units
Metric / English selectable

Gage Repeatability and Reproducibility (% R & R)
< 10% for solvent and waterborne coatings

Supported transducers
Contact or Delay Line – 5 MHz and higher

Minimum radius of curvature for gauging surface
Convex surface radius = 6x probe diameter
Concave surface radius = 18x probe diameter

Using standard probe:
Convex surface: > 2.0" (50.8 mm) radius
Concave surface: > 6.0" (152.4 mm) radius

Device Specifications

Data Storage
Non-volatile memory storage of all data and calibration files
Storage of ~ 1000 measurements

Power
10.8V Ni-MH rechargeable battery – 2 included
8 hours on one battery, 1 hour recharge time
100-240V; 50-60Hz power supply included

Dimensions
255mm x 190mm x 45mm (10" x 7.5" x 1.8")
Weight: 1.6kg (3.5 lbs) with battery

Environmental
Operating Temp: 0° C to 50 ° C (32 - 104°F)
Humidity: < 85% at all times

Case
Extruded aluminum – powder coated

Acceleration / Shock
Operational after 11 mins. of 10-500Hz, 1g sinusoidal vibration
Operational after single 11-ms. shock of 30g

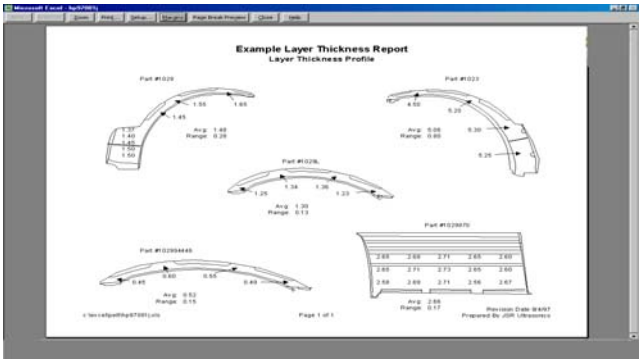
Software Requirements

Operating System
Microsoft® Windows XP and higher

Thickness Data Reporting

Measurement Data Format
Delimited ASCII files generated by PELT Explorer software

Reporting Software
Standard: Custom job/part silhouettes or thickness vs. location chart. Depicts 1 layer per sheet. (Microsoft Excel ® required)



* Minimum thickness and resolution are typical, based on: solvent, water-borne and powder paint coatings using standard probe.
** Material dependent, value based on non-metallic example.
Specifications are subject to change without notice.

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