

Pocket U2 Ultrasonic Thickness Gauge

The Pocket U2 Series of Gauges are easy to use, portable handheld ultrasonic thickness Gauges with a high resolution COLOR waveform (A-Scan) display.

Features Include:

- Color A-Scan & B-Scan
- 50K thickness reading datalogger with Excel interface program
- Waveform color change, vibration in alarm condition and keypad illumination
- User programmable graphics displays
- Sunlight readable Display
- Operates on 2 AA batteries
- Light weight....8 oz.
- Field upgradable software options

All units are packaged in a custom molded high density plastic case with rubber key pad.



Auto zoom tracking centers echoes in the middle of the screen independent of material thickness. The blanking and gain adjustments are ideal for complete waveform adjustment and control.

The Echo to echo feature can ignore paint or coating thickness.

File Compare allows operators to compare old readings and current readings and display both values as well as the difference between the two for essentially real-time corrosion monitoring.

Typical Applications:

- | | |
|--------------------|-------------------|
| • Boiler tubes | • Pipes |
| • Pressure Vessels | • Steam Lines |
| • Storage Tanks | • Compressors |
| • Ship Hulls | • Shafts |
| • Containers | • Bridge Pins |
| • Home Oil Tanks | • Bond Inspection |

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Specifications

Size: 5" (127 mm) (L) x 3" (76.2 mm) (W) x 1.25" (31.75 mm) (H)
Weight: 8 OZ (.23 kg)
Thickness Range: 0.008 - 20 inches (.20 mm - 508 mm),, depending on material, temperature and transducer selection
Material Velocity Calibration Range: 0.0200 - 0.7362 in/ μ (0.508 - 18.699 mm/ μ S)
Temperature: Gauge Operating: -4° F to 122° F (-20° C to 50° C)
Surface temperature of material: Depending on probe use, from -5° F to 1000° F (-20° C to 537° C)
Battery Life: Up to 40 hours (15 hours with backlight on)
Battery Type: 2 "AA" Alkaline
Color Display: 170 X 220 pixels, high resolution TFT color display
Information Displays: LOS, min, max, large reading while displaying min at the same time, velocity, zero, calibration, units, freeze, unfreeze, % battery life remaining, gain - low, std, high, echo to echo symbol
Resolution: .001" (.01 mm)
Auto Probe Setup Parameters: Via pick list from a menu to set up gain, v-path and sensitivity
Delay Line Zero Measurement: Auto at power up with listed numeric value. Ideal for correcting delay line wear/curvature and for transducer acoustic drift at elevated temperatures
Package: Custom, splash-proof, high impact plastic with illuminating rubber keypad for go/no-go testing
Bandwidth: 0.5-20 MHz (-3dB)
Units: English/Metric/Microseconds
Gain: Low, Standard and High for varying test conditions
Measurement Rate: 4 or 20 measurements per second
Differential Mode: Displays the difference from the actual thickness measurement and a user entered reference value

Alarms: Minimum/Maximum depth, vibralarm, beeps and display flashes as well as keypad illumination
Illuminating Keypad: F1 = Red, F2 = Yellow and F3 = Green for easy, go/no-go testing
Automatic Probe Wear Indicator (Transducer attendant): Automatically informs the operator to replace the transducer (Patent Pending)
Ergonomics: User selectable lefty or righty display changes via keypad (Patent Pending)
Backlight: Light Emitting Diode (LED), On/Off or Auto On based on valid readings or last key press
Shut Off: Auto, time out (user programmable from 5-31 minutes or Never shut off)
Fast Scan Min/Max Mode: Displays minimum or maximum thickness value at 20 measurements per second (ideal for high temperature thickness reading and tracking the minimum depth) while also displaying actual thickness.
Protective Pouch: Custom molded pouch with belt clip and wrist strap for either lefty or righty operators
Carrying Case: Hard Plastic with high density molded cut out for all accessories
Freeze Mode: Freezes display to hold onto last reading (ideal for high temperature applications)
Hold Mode: Holds display to retain last thickness reading in reverse video display
Standard U2-C Wave Series Includes: Ultrasonic thickness Gauge with 5MHz, 0.375 inch diameter transducer with potted cable, operational manual, cable, couplant and protective pouch
Warranty: Limited 2 year warranty on parts and labor

Model Specification Chart

| Item | Specification | U2-DL-CW | U2-CW | U2-C |
|---------------------------------|--|----------|-------|------|
| Thickness Range: | 0.008 - 20 inches (.2z mm - 508 mm) | ✓ | ✓ | ✓ |
| Delay Line Zero Measurement: | Auto at power up with listed numeric value. Ideal for correcting delay line wear/curvature and for transducer acoustic drift at elevated temperatures | ✓ | ✓ | ✓ |
| Scan Mode: | Displays minimum or maximum thickness value at 20 measurements per second | ✓ | ✓ | ✓ |
| Differential Mode: | Displays the difference from the actual thickness measurement and a user entered reference value | ✓ | ✓ | ✓ |
| Alarms: | Minimum/Maximum depth, vibralarm, beeps and display flashes as well as keypad illumination and vibration | ✓ | ✓ | ✓ |
| Illuminating keypad: | F1 = Red, F2 = Yellow and F3 = Green for easy, go/no-go testing | ✓ | ✓ | ✓ |
| Automatic Probe Wear Indicator: | Automatically informs the operator to replace the transducer (Patent Pending) | ✓ | ✓ | ✓ |
| Waveform: | Live Color Waveform | ✓ | ✓ | o |
| Range: | Adjustment of manual range control or auto zoom tracking to center echoes independent of selected range | ✓ | ✓ | - |
| Gain Adjust: | Variable adjustment of gain | ✓ | ✓ | ✓ |
| Rectification Modes: | RF, Half Wave Positive, Half Wave Negative and Full Wave Rectification | ✓ | ✓ | - |
| Echo To Echo: | Measures the metal thickness only (ignore paint and coatings) | ✓ | o | o |
| Non-encoded B-scan | Displays a cross section of the test piece | ✓ | o | o |
| Data Logger: | 50,000 or 100,000 thickness datalogger with ID point in linear, 2D or 3D grid files and boiler files (100 to 5,000 readings per file), 2,700 waveforms | ✓ | o | o |
| | <i>All software options are field upgradeable, no need to return the unit to the factory</i> | | | |

Note: "o" is optional and "-" is not applicable

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