# Ultrasonic Thickness Gauge

## Upad X100/X200/X300

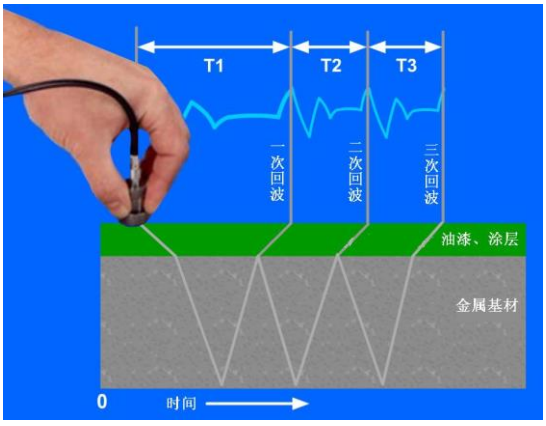
### X Series : High Performance, Low Price

Upad X Series Ultrasonic Thickness Gauge will be the best choice for accomplishing measurement. It fits many kinds of metal, such as steel, cast steel, aluminum, plastic ,China glass, glass fiber and any other good conductors of ultrasonic.

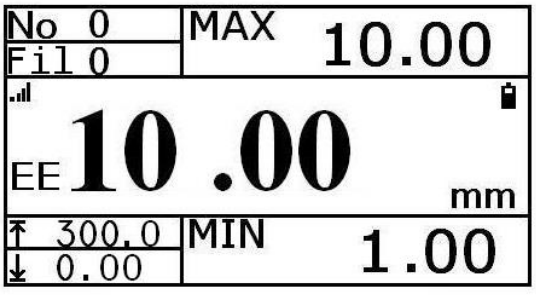
There are three vision in Upad X Series, Upad X100, X200 and X300. X300 could measure the thickness of metal covered with coating, the thickness of metal base will be showed.

Advanced Auto Probe Zeroing Calibration and Echo-Echo mode are applied on Upad X series. Taking more accurate measuring result and higher production rate to you.

Upad X Series is creative, it will supply a superior experience for users.




The indicater of eliminating coating




Measuring Interface

## OPERATION

- **Inco Style Menu**
- **Showing different data modes**
- **Stroll Bars Indicates Function**
- **Free to change : Huge front and normal**

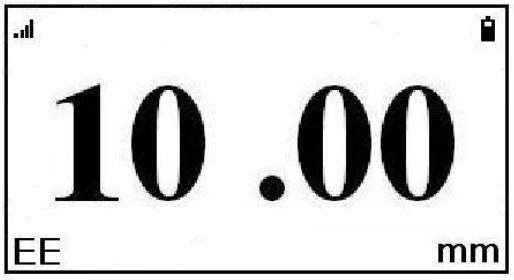
## FUNCTION

- **USB for Storage, Plug and Play**

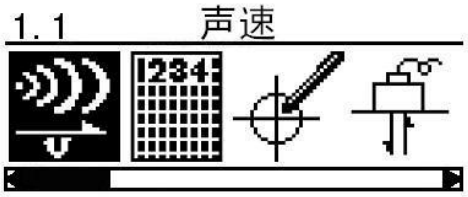
  Covenient to read thickness values

- **Massive Data Memory-100,000 data sets**

  1000 files could be saved , every file could memory 1000 data sets




Brief Interface




Menu

- **Statistic Function**

  Online statistic :Max Min, Standard Devraation
  Document Statistic : Max Min Average, mean square error

- **Probe Connection/Coupling Indicator**

## OPERATION

- **Accurancy : 0.1/0.01mm or 0.01/0.001 inch resolution**
- **Exra-long standby time : 200 hours.**

| performance index |
|---|
| **Working principle** |
| Ultrasound (ultrasonic pulse echo / echo echo) |
| **Detection range** |
| Normal mode : 0.75-400mm |
| Penetrate the coating : 2-25mm |
| (Depending on the probe, the measured material and surface condition) |
| **Resolution** |
| 0.1mm(> 100mm)/0.01mm(<100mm) |
| **Indicator** |
| ± (0.5%H+0.01) mm |
| **Velocity** |
| 1000~9999m/s, Preset 5 commonly used material velocity |
| **Calibration** |
| Through the realization of real-time calibration probe zero unique automatic zerocalibration technique |
| **V range correction** Auto |
| **Probeconnection indicating** |
| Yes |

| |
|---|
| **Coupling condition** |
| Cue signal coupling intensity; measured value displayed solid / hollow change, visual indication of whether the normal measurement |
| **Appearance size** |
| 165×82×30 mm |
| **Weight** |
| 250g (Including battery) |
| **Work environment** |
| **Temperature**：-20℃~70℃ |
| **Humidity**： 5%～90% |
| The environment without strong vibration, no strong magnetic field, non corrosivemedium and serious dust. |
| Measuring Range: Normal : 0.75~400mm Coating : 2-25mm |
| **Excitation pulse** |
| 150V Negative spike |
| Receiving system |
| **Gain** High / low / automatic |

| |
|---|
| **Frequency bandwidth** |
| 0.5-15MHz |
| Display |
| **LCD dot matrix display** |
| High contrast 128X64 |
| Beatiful characters |
| Number, Symbol,High Brightness EL Backlight |
| Refresh rate measurement |
| Single point measurement of 5 times per second, 25 times / sec scan mode |
| Measured value / alarm |
| **Measured value display** |
| 3 custom measurement display area, can choose online statistics or sound |
| **Statistical data** |
| Online Statistics: maximum, minimum, standard deviation |
| Document statistics: maximum / small value, mean, variance |
| **Alarm** Acousto optic alarm threshold |
| Storage |

| | |
|---|---|
| **Data set** | 1000 Sets |
| **The thickness values** | 1000sets/Group Linearity |
| **USB Storage** | Connection USB is allowed, convenient to read thickness values |
| **Input and output** | |
| **probeconnection** | LEMO 00 (C5) x2 |

| | |
|---|---|
| **Communication** | RS232/USB |
| **Language** | Chinese/ English |
| **Unit** | mm/inch |
| **Power Source** | |
| **Battery** | 1.5V AAA x 4 |
| **Working time** | Can work continuously for 200 hours |

(standard test conditions)

**Standard Package**

| | | | |
|---|---|---|---|
| Host | 1 | Instructions | 1 |
| Probe | 1 | Packingbox | 1 |
| Battery | 1 | couplant | 1 |

... Probe of Our Thickness Gauge

| Model | Automatic zero | Measurement precision | USB | Penetrate the coating | Statistical function | Storage Capacity |
|---|---|---|---|---|---|---|
| Upad X100 | V | 0.1/0.01mm | X | X | Online statistics | 100 Groups |
| Upad X200 | V | 0.1/0.01mm | V | X | Online statistics / data statistics | 500 Groups |
| Upad X300 | V | 0.1/0.01mm | V | V | Online statistics / data statistics | 1000 Groups |

... Probe of Our Thickness Gauge

| Application | Mode | Rate | Probe Diameter | Measuring range | Minimum diameter |
|---|---|---|---|---|---|
| Standard application | DA301S | 5 MHz | 10mm | 0.75mm～400.0mm (Steel) | Φ20mm×3.0mm |
| Standard application | DA301S/90 | 5 MHz | 10mm | 0.75mm～400.0mm (Steel) | Φ20mm×3.0mm |
| Thick Wall | DA303S | 2 MHz | 22mm | 3.0mm～300.0mm (Steel) | 20mm |
| Thin wall | DA312S | 7 MHz | 6mm | 0.75mm～80.0mm (Steel) | Φ15mm×2.0mm |
| High temperature | HT400S | 5 MHz | 14mm | 3～200mm (Steel) | 30mm |
| High attenuation | DA408S | 2 MHz | 22mm | 40mm↓(Grey cast iron HT200) | 20mm |

...Commonly used material velocity

| Material type | | Sound velocity | |
|---|---|---|---|
| | | inch/us | m/s |
| Aluminum | Aluminum | 0.250 | 6340-6400 |
| Steel, common | Steel, common | 0.233 | 5920 |
| Steel, stainless | Steel, stainless | 0.226 | 5740 |
| Brass | Brass | 0.173 | 4399 |
| Copper | Copper | 0.186 | 4720 |
| Iron | Iron | 0.233 | 5930 |
| Cast Iron | Cast Iron | 0.173-0.229 | 4400—5820 |
| Lead | Lead | 0.094 | 2400 |
| Silver | Silver | 0.142 | 3607 |
| Gold | Gold | 0.128 | 3251 |
| Titanium | Titanium | 0.236 | 5990 |
| Tin | Tin | 0.117 | 2960 |

| | | | |
|---|---|---|---|
| Nickel | Nickel | 0.222 | 5639 |
| Porcelain | Porcelain | 0.230 | 5842 |
| Rubber, vulcanized | Rubber, vulcanized | 0.091 | 2311 |
| Water | Water | 0.058 | 1473 |