



**UM-3**

**Ultrasonic Thickness Gauge**

## UM-3 Technical Specifications

### Product Introduction

UM-3 is a simple to use, hand-held Ultrasonic Thickness Gauge for high precision, high resolution and ultra thin thickness measurement. It uses the most advanced microprocessor and ultrasonic technology to offer users many outstanding features. It presents highly stable and repeatable reading, high accuracy and resolution (up to 0.001mm) and ability for measuring ultra thin sample (as low as 0.30mm). It also offers a compact, comfortable and durable structure, ease of operation through the menu, multiple language selection, and low power consumption (with two AA batteries). These features along with its high quality probe make UM-3 unequalled in its performance as well as its value!

### Technical parameter

Display Type	128×64 dot-matrix LCD screen with EL backlight
Operating Principle	I-E(interface-echo) mode with single-crystal delayed probe E-E(echo-echo) mode with single-crystal delayed probe
measuring range	0.3mm to 10mm in E-E mode 1.5mm to 20mm in IE mode
Indication error	E-E mode: $\pm 0.01$ $H \leq 3\text{mm}$ , $\pm 0.05$ $3 < H < 10\text{mm}$ I-E mode: $\pm 0.05$ $H < 10\text{mm}$ $\pm(0.5\%H + 0.01)$ $H \geq 10\text{mm}$ H: Thickness of measured material
Resolution:	$H < 10\text{mm}$ : 0.001mm/0.01mm/0.1mm $H \geq 10\text{mm}$ : 0.01mm/0.1mm inch : 0.0001, 0.001, 0.01
Units	Inch or Millimeter
Update Rate	4Hz
Material Velocity Range	1000 ~ 9999 m/s (0.0394 to 0.3937in/us)
Memory Function	5 arrays are divided to store 500 thickness values
Minimum Value Checking	Move the probe along the surface of the testing material, the gauge is able find the thinnest point automatically.
Warning Function	If the measured value exceeds the pre-set thickness limit, the warning tone will start.
Velocity Storage	Velocities of 5 different materials can be stored totally
Languages	English and Chinese
Communication Port	USB port or Serial RS 232 port (Optional)
Application Software	UmView Software for transmission, storage, analysis and documents editing (Optional)
Power Requirements	Two 1.5V AA alkaline batteries (Warning with low battery voltage)
Operating Time	Up to 200 hours with alkaline batteries (without backlight)
Instrument Shut-off	AUTO OFF after 5 minutes of inactivity
Operating Temperature	-10° C to +50° C ,    -20° C in special requirements
Size	149mm X 73mm X 32mm(H X W X D)
Weight	210g including batteries