

0.001mm Resolution



UM-3

Ultrasonic Thickness Gauge

UM-3 Technical Specifications

Product Introduction

UM-3 precision ultrasonic thickness gauge adopts single element delay line probe, improves accuracy by multiple echoes, the resolution up to 0.001mm ,lower limit of measurement to 0.30mm.

UM-3 has both common and precision operating modes.

The common mode adopts the interface wave-echo mode,the measuring range is 1.5mm - 20mm;

The precision mode adopts echo - echo mode, the measurement range is 0.30mm- 10mm.

Product Parameter

Display Type	128*64 dot-matrix LCD screen with EL backlight
Operating Principle	I-E(interface-echo) mode with single element delay line probe E-E(echo-echo) mode with single element delay line probe
Measuring Range	0.3mm to 10mm in E-E mode 1.5mm to 20mm in I-E mode
Indication Error	$\pm 0.005\text{mm}$ ($\leq 3\text{mm}$) $\pm 0.05\text{mm}$ ($3 > H \leq 20\text{mm}$) H: Thickness of measured material
Resolution	H<10mm : 0.001mm/0.01mm/0.1mm H \geq 10mm : 0.01mm/0.1mm inch : 0.0001, 0.001, 0.01
Units	Inch or Millimeter
Update Rate	Common measurement of 4Hz,Minimum scan of 25Hz
Material Velocity Range	1000 ~ 9999 m/s (0.0394 to 0.3937in/us)
Memory Function	5 arrays are divided to store 500 thickness values
Delete Function	Delete the suspicious data in the file, or delete all the stored data in order to store new data
Warning Function	If the measured value exceeds the preset 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 * 73mm *32mm(H * W * D)
Weight	210g including batteries

Optional Accessories

Single Element Probe	Probe Cable
Wedge	Standard Test Block
Rubber Sheath	Communication Option