Ultrasonic Thickness Gauge UMap - 2D

Ultrasonic thickness gauges measure the thickness of ultrasonic wave well-conductive materials with parallel top and bottom surfaces. It measures the thickness of both metal (steel, aluminum, titanium, etc.) and nonmetal (plastics, ceramics, glass, etc.) parts. They are commonly used to measure (remaining) wall thickness of pipes and pressure vessels.

This model has through coating (echo to echo) mode. The feature allows the gauge ignore the coatings while taking measurement. It has higher accuracy when testing parts with coatings compared to models without through coating mode.

Features: mm/inch display, zero-point or two-point calibration, coupling condition indication, built-in test block for field calibration, upper or lower limit setting, easy to operate.

Another useful feature is Minimum Capture: The thinnest readings obtained will show on the display to help identifying weak spots.

Optional probe for high-temperature application is available.

Optional software is available.

Specifications:

Measuring range	0.031"-11.81" (0.8-300 mm) in standard mode 0.118"-0.709" (3.0-18.0 mm) in through coating mode
Display resolution	0.001"/0.01" or 0.01 mm/0.1 mm
Accuracy	±0.1 mm (0.002") below 1", 0.5% H above 1"
Repeatability	±0.001" or ±0.025 mm
Velocity	1000 to 9999 m/s, 0.039 to 0.394 inch/μs
Frequency	4 Hz in standard measurement mode 25 Hz in Min capture mode
Onboard memory	500 readings in maximum 5 files
Batteries	2×AA batteries
Operating hours	200 working hours without backlight
Operating temperature	14 °F to 122 °F (10 °C to 50 °C), to -4 °F (-20 °C) on request
Software	Optional with USB communication cable
Dimensions	149×73×32 mm (5.86"×2.87"×1.25")
Weight	200 g (7 oz) including batteries

Specifications of transducers (probes):

Probe model	Frequency	Crystal size	Measuring range on steel	Note
PT-08	5 MHz	8 mm	0.8-300 mm, 0.031"-11.81"	Standard probe
PT-12	5 MHz	10 mm	1.0-150 mm, 0.039"-5.905"	
PT-06	7.5 MHz	6 mm	0.8-30 mm, 0.031"-1.181"	
PT-04	10 MHz	4 mm	0.7-12 mm, 0.028"-0.472"	For thinner material
ZT-12	2 MHz	12 mm	4.0-300 mm, 0.157"-11.81"	For cast iron
GT-12	5 MHz	10 mm	4.0-80 mm, 0.157"-3.149"	Temp. to 716 °F (380 °C)

Standard accessories:

UMap-2D main unit
Standard probe (PT-08)
Two AA batteries
Ultragel II coupling jel 2 oz
Instruction manual
NIST calibration certificate
Carrying case

Optional accessories:

Protection rubber sheath (jacket)
Software and USB cable
Ultragel II coupling jel 4 oz temperature -10 °F to 210 °F
Step test blocks
Transducers

UMap-2D can be used in, but not limited to the following industries:

- Machine tool industry
- Car spare parts, forklift truck and engine industry
- Aviation and space industry
- Universities and institutes
- Spare parts of spinning-machine: gauze-leading wheel and all kinds of core-shafts
- Printing machines & material, plate-making machine (PS printing plate), aluminum foil
- Hydraulic instruments and pressure vessels
- Pottery products
- Petroleum machine and parts
- Machines for food, oil and beer
- Machines of light industry
- Papermaking machines
- Close casting, forging
- Steel and powder metallurgy industry
- Electronic instruments, electric control equipments, communication equipments
- Manufacturing of motors
- Manufacturing of batteries
- Machines in pharmaceutical industry

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