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Ultrasonic Coating Thickness Gauge User Manual

Product Overview

Ultrasonic thickness gauges utilize the pulse reflection principle of ultrasound for material measurement. When ultrasonic pulses emitted by the probe penetrate the measured object and reach the material interface, they are reflected back to the probe. By precisely measuring the propagation time of ultrasound through the material, the thickness of the measured material can be determined. These instruments are primarily used to measure the thickness of metals (such as steel, cast iron, aluminum, copper), plastics, ceramics, glass, fiberglass, and any other ultrasonic conductors. They are widely applied across various industries including petroleum and petrochemicals, automotive manufacturing, shipbuilding, aerospace, rail transit, metallurgy, mechanical processing, and container/piping systems.

Features

- Suitable for measuring the thickness of metals (such as steel, cast iron, aluminum, copper, etc.), plastics, ceramics, glass, fiberglass and any other ultrasonic good conductor
- It can be equipped with a variety of different frequencies and different chip sizes of dual crystal probes
- It has the function of probe zero calibration and two-point calibration, and can automatically correct the system error
- It is known that thickness can reverse the sound velocity to improve the measurement accuracy
- It has the function of coupling status prompt
- It has LED backlight display, which is convenient for use in dim environment
- There is a remaining power indicator function, which can display the remaining power of the battery in real time
- It has automatic sleep, automatic shutdown and other power saving functions
- Compact, portable, high reliability, suitable for harsh operating environment, vibration, shock and electromagnetic interference resistance

Technical Parameter

- Display method: white high brightness LED backlight, LCD contrast can be adjusted;
- Measurement range: 0.75 ~ 300mm (depending on the probe), metric and English can be selected;
- Speed range: 1000~9999 m/s:
- Resolution: 0.1mm/0.01mm optional
- Indication accuracy: ± (0.5%H+0.04) mm H is the actual thickness of the measured object;
- Measurement cycle: 4 times/second for single point measurement, 20 times/second for scanning mode;
- Storage capacity: can store 500 sets of thickness measurement data.
- Working voltage: 5 dry batteries 2 AA size alkaline battery series)
- Continuous working time: about 100 hours (without backlight)
- Shape size: 150×74×32 mm
- Weight: 238g

Standard Layout

Ultrasonic thickness gauge host	1 unit
Standard probe (N05)	1 share
C coupling agent (bottle)	1 bottle
Random data (instruction manual, warranty card, certificate of conformity)	1 set
ABS instrument packaging box	1

Maintenance

1. Please do not use sharp objects to carve the display screen;
2. The instrument and probe should be avoided from strong vibration;
3. Avoid placing the instrument in a humid environment;
4. When inserting and removing the probe, you should hold the movable sleeve along the axis and press hard, and do not rotate the probe to avoid damaging the cable core wire of the probe;
5. The attachment of oil and dust will make the probe wire gradually aging and breaking, and the dirt on the cable should be removed after use;
6. When the battery capacity is nearly depleted or completely exhausted, replace the battery promptly to maintain measurement accuracy. If the instrument will not be used for an extended period, remove the battery to prevent electrolyte leakage that could corrode the instrument housing and electrode plates. Note: Always ensure correct polarity during installation! Reversed polarity may cause damage to the device.