

ULTRASONIC THICKNESS GAUGE

AR850 Normal temperature type



General features and functions :

Smart sensor "AR850/850A" is an intelligent portable ultrasonic thickness gauge, it is controlled by microprocessor. The equipment is using ultrasonic measurement method; it is fast, high accuracy and non destructive testing for multi-material thickness.

1. Automatic zero reset.
2. Automatic linear compensation for the sensor and increase the measure accuracy.
3. Sensor coupling status display: have normal coupling status indication by means of the sensor stability.
4. Maximum 10 record storage memory.
5. Have sound speed measure function: can measure the material sound speed by the sample work thickness. Save time to check the material sound speed conversion table.
6. Automatic power off: Set time to automatic power off for save battery life.

Measuring range : 1.2~225.0mm (steel)

Accuracy : $\pm(1\%H+0.1)$ mm

Sensor operation temperature : AR850—0~50°C ; AR850A—0~300°C

Power supply : 1.5V AAA alkaline battery * 3 pcs

Appliaction

Oil, Shipbuilding, Power station, mechanic manufacturing or pressure tank, chemical equipment, steelmaking furnace, oil storage tank, glass workshop, metal workshop or all need to check the surface of tube thickness trade. It can check most of hard material, such as: steel, aluminum, copper, zinc, quartz glass, polyethylene, polyvinyl chloride, iron, ceramic, plastic, or other ultrasonic conductor thickness.

Technical Specifications:

Minimum limit for tube measuring	$\phi 20 \times 3$ mm (steel)
Sound velocity range	1000~9999 m/s ($\pm 5\%$)
Working frequency	5MHz
Operation temperature	0~45°C/0~300°C
Data storage/recall function	✓
Auto power shut off	✓
Sound velocity measurement	✓
LCD backlight display	✓
Low battery indication	✓

Packing Information

Product Net Weight	210g
Product Size	70.0*145.5*28.0mm
Packing	Gift Box
Standard Quantity Per Carton	20
Standard Carton Size	62.5*45.0*28.5cm
Standard Carton Gross Weight	14.7kg

The operation requirement

Work piece surface area requirement

This equipment is suitable for measuring all surface area bigger than the sensor work piece. However, if it is using on the small long work piece or the sensor not at a right angle of the work piece, The testing area must be as big as possible to prevent reading error.

Curved surface testing area requirement

When the work piece surface is curved surface (stove, tube, etc), curve's radius must not less than 10mm, and thickness must not less than 3mm.

Roughness requirement

This requirement can widely use on rough surface. Normally, our company's sensor can accurately measure rough surface. However, if rusting or other make the surface have serious rough, it may cause reading error. In this status, please select the measure frequency 2.5MHz of decrease the roughness of the work piece.

Work piece temperature requirement

The material thickness and ultrasonic spread speed will effect on the work piece temperature. In normal accuracy requirement, the effect can omit, on the other hand, the sensor surface material is propylene resin, for ensure the accuracy of the sensor, AR850 operation temperature is 0~45°C, If over this range, please choose AR850A

AR850/850A accessory :

