

HUATEC TG-8812 new series advanced Ultrasonic thickness gauge



1. Overview

Ultrasonic thickness gauge is a kind of high-precision thickness gauge which uses ultrasonic measurement principle, adopts high-speed processor and high integrated chip design to realize portable, nondestructive, fast and accurate measurement of thickness and sound velocity of various materials. It is suitable for measuring the thickness of various materials, such as steel, metal, glass, ABS, plastics, PVC, ductile iron, etc., which can be transmitted by ultrasonic wave at a constant speed in its back.

2. Instrument characteristics

- It is suitable for thickness measurement of various materials: various metals, glass, plastics and other materials;
- The instrument is exquisite and compact, with 2.3-inch color screen display, which is easy to carry, Suitable for on-site inspection
- Measurement mode: standard mode / ultra-thin mode (for High-precision large range type)
- Measurement mode: standard mode / Penetration coating mode (special for penetrating type)
- High measurement accuracy, wide measurement range, single probe full range
- English bilingual version
- Bluetooth interconnection data transmission function (applicable to TG-8812L and TG-8812D thickness gauge)
- Calibration: standard block calibration, sound velocity calibration, sound velocity can be calculated by known thickness
- Two kinds of manual shutdown and automatic shutdown, users can choose at will;

- Built in sound speed of 7 kinds of commonly used materials, which can be edited and convenient for users to use;
- Humanized data storage mode: mass storage, and can save data in groups, can store 10 groups of data, each group can save 200 data, and can store 2000 data
- Large capacity storage, view, delete operation, convenient and simple
- Multi probe selection use, high temperature environment measurement can be equipped with high temperature probe, high temperature resistance (300 °C)

3. Technical index

MODEL	TG-8812N	TG-8812C	TG-8812L	TG-8812D
Measuring Range (Standard)	0.9~300mm	0.75~400mm	0.55~500mm	0.75~500mm
Standard mode	0.9~300mm Probe: 5PΦ10mm	0.75~400mm Probe: 5PΦ10mm	0.75~500mm Probe: 5PΦ10mm	0.75~500mm Probe: 5PΦ10mm
Ultra-thin mode	/	/	(0.55~1) mm	/
Penetration mode (Echo-Echo)	/	/	/	2.5-25mm(steel)
Microcrystal probe	1~50mm Probe: 7.5PΦ6mm	0.75~100mm Probe: 7.5PΦ6mm	0.75~100mm Probe: 7.5PΦ6mm	0.75~100mm Probe: 7.5PΦ6mm
High temperature probe	2~100mm (Probe: ZW5P)	1.5~100mm (Probe: ZW5P)	1.5~200mm (Probe: ZW5P)	1.5~200mm (Probe: ZW5P)
Display Resolution	0.1mm	0.01mm	0.01mm	0.01mm
Measurement Resolution	± (1%H+0.1) mm	± (1%H+0.1) mm	± (0.5%H+0.05) mm	± (0.5%H+0.05) mm
Material Velocity	1000~9999m/s			
Bandwidth	1MHz~10MHz(-3dB)			
Power Supply	4.5VDC (three AAA batteries)			
Screen	TFT Color screen 2.3 inch			
Size	130 (L) ×70 (W) ×25 (H) mm			
Weight	125g (excluding batteries)			
Work Temperature	-10~ + 50°C(with high temperature probe, up to 300°C)			
Work Humidity	20%~90%RH			

4. Standard accessories

NO	Item name	Quantity
1	Thickness gauge	One
2	Standard probe (5P, φ 10)	One
3	Coupling agent (50ml)	One
4	Battery	Three AAA

		batteries
5	Manual	One
6	Qualification certificate	One
7	Instrument package	One

Sound Velocities of Various Materials Longitudinal Wave Velocity

Material	Velocity(m/s)	Material	Velocity(m/s)
water(20°C)	1480	Stainless steel (304)	5663
glycerin	1920	Brass, yellow	4640
Water-glass	2350	Copper	4700
Nylon	2620	Glass	5440
Acetic acid resin	2670	Nickel	5630
Acrylic acid resin	2730	Steel 330	5600
Tin	3230	Steel 4330	5850
Gold	3240	Iron ,steel	5920
phosphor bronze	3530	Titanium	6070
Silver	3600	Magnesium	6310
Zinc	4170	Aluminum	6320