

## Features

The Trantech TTBHLS water level sounder /dip tape provides an accurate method of measuring water level in boreholes and wells. Suitable for observing groundwater levels in hydropower projects or the dam body of earth-rock dams. This instrument can be used both during construction and for long-term safety monitoring of water levels. The TTBHLS offers a cost effective solution to determine static head pressure in well and borehole applications.



## Technical Specifications

Type	TTBHLS-30	TTBHLS-50	TTBHLS-100	TTBHLS-150
Measuring depth (m)	0~30	0~50	0~100	0~150
Min reading (mm)	1.0			
Repeatability Error (mm)	±2.0			
Weight (KG)	3.5	4.5	6.5	10
Operating Voltage (V)	DC=9V Battery			

## Sensor details

Probe : Stainless steel construction. When the contact point touches the water surface, the receiving system will activate. When the contact point leaves the water surface, the receiving system will automatically turn off.

Steel ruler / cable : The steel ruler and wire are combined and plastic coated, The coating prevents the steel ruler from rusting and protects the cable.

Receiving system / reel : The plastic reel consists of a sounder and a peak light indicator. The sounder emits a continuous buzzing sound from a buzzer, and the peak indicator is indicated by the voltmeter pointer. Both can be selected by toggle switch, regardless of which receiving system is used the measurement and reading accuracy is consistent.

Winding drum : Plastic winding disc and bracket. The receiving system and battery are all placed in the core cavity of the winding drum, and the steel ruler cable is wound onto the reel spool.

## Installation

Loosen the locking screw on the back of the winding reel, let the reel rotate freely, Press the power button (the power indicator light will illuminate), put the measuring head into the water level tube, hold the steel ruler cable in hand, and let the measuring head and tape slowly enter the ground / borehole. When the contact point of the probe touches the water surface, the sounder of the receiving system will emit a continuous beep sound. At this stage, the depth dimension of the steel ruler cable at the pipe entry point can be noted. That is the distance between the groundwater level and the pipe / ground level.

If the buzzer cannot be heard when measuring in a noisy environment, you can use the peak indicator instead. Just turn the selector switch on the instrument panel to the voltage level. The measurement method is the same as above.

### **Users must pay attention to two points when testing reading:**

a) When the contact point of the probe touches the water, the buzzer will make a sound, or the voltmeter will immediately indicate. At this time, the steel ruler cable should be slowly retracted to carefully find the exact position of the sound or indication moment. Then read the depth dimension of this point from the hole.

b) The accuracy of the reading depends on the timely determination of the starting position of the peak sound or indication. The accuracy of the measurement is related to the operator's proficiency, so it should be practiced and operated repeatedly.

## Maintenance and storage

Due to the limited battery capacity, the power switch should be turned off when the system is not in use .

After measurement, the probe and steel ruler cable must be wiped clean, and the steel ruler cable must be neatly wound on the winding reel.

Do not bend the steel ruler cable, especially near the end of the probe, to avoid damage and breakage.

The probe should be handled with care and avoid dropping and excessive vibrations.

The instrument should be stored in a dry and ventilated room without corrosive gases at a temperature of  $-10^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$  and a humidity not greater than 80%.