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## DATASHEET

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# WATER LEVEL SOUNDER

## MODEL EPP-10/6



### INTRODUCTION

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Monitoring of ground water table has assumed great significance in view of depleting ground water reserves. The basic measurement of ground water level can be done by Open Standpipe or constructing observation wells.

Encardio-rite model EPP-10/6 water level sounder is widely used for measurement of water level in boreholes, wells, casagrande piezometers and standpipes. It is accurate, robust, light weight and convenient to use.

### FEATURES

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- Low cost, reliable and accurate
- Simple to read, with audio and visual green LED signals.
- Portable, light weight and easy to carry.
- Flat cable with steel graduated tape is high tensile, virtually non-expandable, water proof and corrosion resistant.
- Tape graduations available in meter with resolution of 1 mm or in feet with resolution of 0.1" standard.
- Tape locking arrangement provided.

### APPLICATION

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- Measurement of water level in stand pipes, casagrande piezometer, boreholes and wells
- Ground water level measurement in boreholes near dams, rivers, high rise buildings, farm houses, factories, institutes and residential areas.
- Ideal for simple ground water level monitoring.



## MONITORING OF WATER TABLE

To monitor the water table at a particular location either an existing well or a borehole is used or a borehole is drilled down to the aquifer that contributes most to the water table. A casing pipe is generally installed in the borehole to prevent the borehole wall from collapsing. At the level of the aquifer the casing pipe is replaced with highly porous filter whose length is generally equal to the vertical thickness of the aquifer layer. The filter in this case can even consist of a section of slotted pipe covered with geo-textile to prevent soil particles from clogging the borehole.

The level of water in such a borehole or well corresponds to the water table at that location. The water level is generally referenced to mean sea level and is known as the elevation of the water table.

## OPERATING PRINCIPLE

Model EPP-10/6 water level sounder comprises of a probe, graduated cable and cable reel. The unit is battery operated complete with an on-off switch, buzzer, LED for power on and signal, flat cable connected to probe, winding reel and easy to grip carrying handle.

The probe is of stainless steel construction with a diameter of 12.7 mm. The slim size of probe makes the unit suitable for narrow boreholes also. The probe consists of two electrodes with an insulating gap between them. When tip of probe comes in contact with water inside a borehole, standpipe or well, the circuit is completed giving a sound alarm and a light signal.

The elevation of water is then directly determined by noting the tape reading that coincides with the top of the borehole, standpipe or well.

The moisture resistant electronics, a high volume buzzer and a standard 9 V PP-3 size battery are housed in a hub on the cable reel.

The hub can be easily removed to replace the battery or check the electronics without disassembling the entire cable reel.

A locking arrangement is provided on the reel to prevent cable from unwinding, whenever necessary.

A threaded cap is provided at the bottom of the probe. Removing the cap provides access to clean the insulation between the two electrodes of any undesirable conducting material that may deposit from the ground water on the insulation with time.

## DESCRIPTION

The cable of model EPP-10/6 water level sounder is made of high tensile virtually non-expandable, non-stretch, PE insulated flat steel tape 10 mm wide x 2 mm thick. The length of the cable is commensurate with the depth up to which the observation is required to be made.

The tape has integral twin wires for current transmission. The two conductor cable serves to lower the probe and also to connect the probe to the output circuit board.

The permanent markings on tape are available in Metric unit i.e. in meter with a resolution of 1 mm or Imperial unit i.e. in feet with a resolution of 0.1 in.

## SPECIFICATIONS

### EPP-10/6 Water level sounder

Tape Length 'L' (m)	30, 50, 100, 150, 200, 300
Resolution (for tape length in m)	1 mm standard
<b>Imperial unit (optional)</b>	
Tape Length 'L' (ft)	50, 100, 150, 300, 500
Resolution (for tape length in ft)	0.1" standard
Cable/Tape	High tensile virtually non-expandable, non-stretch, PE insulated flat steel tape
Tape/Cable Size	10 mm wide x 2 mm thick
Probe	Stainless steel with 12.7 mm diameter
Power Supply	9 V PP-3 size battery
Audio Signal	Sound buzzer
Visual Signal	Green LED light signal

## Ordering code

**EPP-10/6-L-X** [L= length of tape, X = unit (m or ft)]