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Model 101 Data Sheet

Water Level Meter

Model 101

For measuring the depth to water in wells, boreholes, standpipes, and tanks, Model 101 Water Level Meters are the industry standard for portable hand operated meters. They are sturdy, easy to use and read accurately to 1/100 ft. or each millimeter.

There are two versions to choose from. The Model 101 P7 Water Level Meter features a pressure-proof probe and laser marked PVDF tape. The Model 101 P2 Water Level Meter features an easy-to-repair probe and heat embossed polyethylene tape.

Also available, are the less expensive Model 102 and 102M Coaxial Cable Water Level Meters for use in small diameter tubes, and the basic Model 101B Water Level Meter (see Model 102 and 101B Data Sheets). The Model 101D Water Level DrawDown Meter provides both depth to water and drawdown measurements using one probe (See Model 101D Data Sheet).

Water Level Meter Reels

With a stand-alone design, convenient carrying handle, and sturdy probe holder, the standard reels are ergonomically designed for ease of use. They are robust and smooth running. The battery is housed in a convenient drawer in the front of the reel, allowing guick replacement. The reels are equipped with an on/off sensitivity switch, light, buzzer, battery test button, brake and a tape guide stored on the frame.

Water Level Meter Specifications	
Operating temperature of reel:	-20°C to +50°C
Submerged operating temperature (tape/probe):	-20°C to +80°C
Wetted materials (tape/probe):	P7: PVDF, Santoprene, ®Delrin, ®Viton, 316 stainless steel
	P2: MDPE, neoprene, Delrin, 316 stainless steel
Probe pressure rating:	P7: Fully submersible to depth of all tape lengths
Reel IP Rating:	IP64 (dust and splash proof)
Tape lengths:	P7: 100 to 5000 ft, 30 - 1500 m
	P2: 100 to 1000 ft, 30 - 300 m



Model 101 P7 Water Level Meter Features

Accurate:

- Markings each 1/100 ft. or millimeter
- Traceable to national standards
- Sensitivity adjustable to conductivity
- Probes avoid false readings in cascading water

Reliable:

- Permanent laser markings
- Non-stretch PVDF tape with stainless steel

conductors

- **Long Life:** Rugged, corrosion proof components
 - Strong, flexible tapes
 - Easy to splice and repair

Flexible:

• PVDF replacement tapes are interchangeable with other meters

Water Level Meter Operating Principles

Model 101 Water Level Meters use corrosion proof stainless steel probes attached to permanently marked flat tape, fitted on a well-balanced reel. They are powered by a standard 9 volt battery.

The probes incorporate an insulating gap between electrodes. When contact is made with water, the circuit is completed, activating a loud buzzer and a light. The water level is then determined by taking a reading directly from the tape at the top of the well casing or borehole.

A sensitivity control allows the buzzer to be turned off while in cascading water, and ensures a clear signal in both high and low conductivity conditions.





P7 Probe

The P7 Probe is submersible the full length of the tape, therefore, you can measure total well depth in ideal conditions. The sensor at the tip of the probe provides consistent measurements with almost zero displacement. The tape seal plug design allows the probe to be quickly and easily replaced, if required.

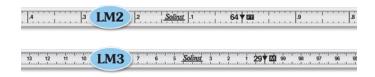
PVDF Laser Marked Tape

The Model 101 P7 Water Level Meter uses extremely durable, PVDF flat tape, traceable to NIST and EU measurement standards. Each tape conductor contains 13 strands of stainless steel, and 6 strands of copper-coated steel, making the tape non-stretch and high in tensile strength and electrical efficiency. The tape has a thick dog bone design that prevents adherence to wet surfaces, and allows it to hang straight in application. It is also easy to splice. The 3/8" (10 mm) tape comes with permanent laser markings every 1/100 ft. or each millimeter, in lengths up to 5000 ft. (1500 m).



Size: 5/8" dia., 5.38" long (16 mm x 137 mm)

Weight: ~4.5 ounces (128 g)



LM2: Feet and tenths: with markings every 1/100 ft. **LM3**: Meters and centimeters: with markings every mm