

Model 101

## Water Level Meter

For measuring the depth of water in wells, boreholes, and standpipes, the Model 101 Water Level Meter is the most accurate and reliable of the Solinst meters. It is easy to operate and read to 1/100 ft. or to each millimeter.

Also available, from Solinst, is the less expensive Model 102 Coaxial Cable Water Level Meter for use in small diameter tubes. (Data Sheet 102.)

## Operating Principles

The Model 101 Water Level Meter uses a choice of probe designs, attached to a permanently marked polyethylene tape, fitted on a well-balanced reel. It is powered by a standard 9 volt battery housed in an easy-access battery drawer. The conductors embedded within the tape each have seven strands of stainless steel for strength and flexibility.

The probe incorporates 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.



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## Tape Specifications

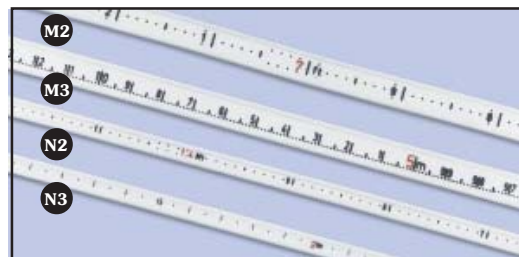
The high quality polyethylene tape reels smoothly, remains flexible and hangs straight in the well, irrespective of temperature. Permanent markings each millimeter or 1/100 ft. allow accurate readings, traceable to national standards.

Stranded stainless steel conductors resist corrosion, provide strength and are non-stretch. They make the tape very easy to repair and splice. The dog-bone design reduces adherence to wet surfaces. Markings are permanently impregnated onto one side of the tape in your choice of scale.

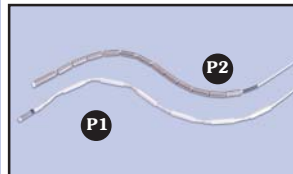
**M2** Feet and tenths: with markings every 1/100 ft.

**M3** Meters and centimeters: with markings every mm.

**N2 and N3** As above, but on the narrow 1/4" (6mm) tape for the Mini 101 Water Level Meter.



## Narrow Mini 101



### An accurate tape for use in narrow diameter applications.

The Mini 101 Water Level Meter is ideal for use in narrow diameter applications as small as 3/8" (10 mm).

The narrow 1/4" (6 mm) tape is mounted on a convenient small reel that is light weight and fits easily into a backpack. The accurate, flat white tape is marked each 1/100 ft. or each mm.

The Mini 101 is available in 30 ft, 65 ft, 10m and 20m lengths. The P1 probe is designed to be as small as possible, with a diameter of 0.3" (7.6mm) and the P2 probe has a diameter of 0.375" (9.5mm) and is a little heavier. Both probes have segmented weights.

## Features

- Accurate**
  - Markings each 1/100 ft. or millimeter
  - Traceable to national standards
  - Sensitivity adjustable to conductivity
  - Shielded probes to avoid false readings
- Reliable**
  - Permanent, heat impregnated markings
  - Non-stretch stainless steel conductors
- Long Life**
  - Rugged, corrosion proof components
  - Strong, flexible tape, is easily spliced

## Reels

Standard reels are ergonomically designed for good balance and ease of use, with a stand-alone design, convenient carrying handle and an excellent brake.

They are robust and smooth running. The battery is housed in a convenient battery drawer and each reel has a probe holder and brake. The reels are equipped with an on/off sensitivity switch, light, buzzer, and a battery test button.

The mini reel is sturdy, yet very compact and easy to carry.



## Length Options

Solinst Model 101 Water Level Meters are available on reels as shown at right, in the following standard lengths:

<b>Mini Reel</b>	30 ft.	10 m	<b>Medium Reel</b>	500 ft.	150 m
(Narrow tape)	65 ft.	20 m		650 ft.	200 m
<b>Small Reel</b>	100 ft.	30 m		750 ft.	250 m
	150 ft.	50 m		1000 ft.	300 m
	200 ft.	60 m	<b>Large Reel</b>	1250 ft.	400 m
	250 ft.	80 m		1500 ft.	450 m
	300 ft.	100 m		1650 ft.	500 m
	400 ft.	125 m	<b>XL Reel</b>	2500 ft.	750 m
				3000 ft.	900 m
				3500 ft.	1500 m



Power Reel

## Other Options.

**Power Reels:** Power reels can be very useful to allow faster or less strenuous operation of longer lengths of tape. The 110 volt power reels are available on request.

**Carrying Bag:** Padded nylon carrying bags are available, as an optional extra. The sturdy design has a convenient shoulder strap, zippered front pocket, zippered top, and a grommet in the base to prevent moisture build-up.

**Replacement Parts:** Replacement probes, tapes with probe and other spare parts are available. Meters can also be returned directly to Solinst, or to authorized repair facilities in Canada or the U.S.A. for service or repair.

## Probe Options (Standard Tape)

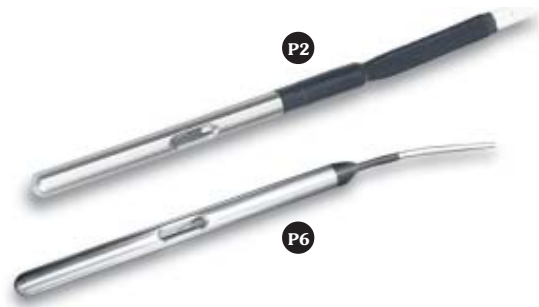
All probes are designed to reduce or eliminate problems with cascading water.

**P2 Stainless Steel:** with a neoprene strain relief. Not suitable for submergence to any significant depth. Easy to repair.

Size: 0.5" dia. by 7.5" long (12.7 mm x 190 mm).

**P6 Submersible:** stainless steel, leak-proof probe. Simple design, similar to P2, uses o'rings to allow submergence to 1000 ft. (300 m) below water. It is easy-to-clean and hangs straight in the well.

Size: 0.5" dia. by 8.625" long (12.7 mm x 220 mm).



## Tape Guide/Datum

A tape guide is provided with each standard Water Level Meter. It protects the tape from damage on rough edges of well casing and ensures easy, consistent measurements, regardless of who takes the readings. It can also provide reel support on the casing, as shown above.



Tape Guide



Convenient position for consecutive readings