

Model 102

## Coaxial Cable Water Level Meter

The Solinst Model 102 Water Level Meter has been designed for measuring groundwater levels, especially in small diameter tubes and piezometers. The cable has a heavy duty jacket and stainless steel inner conductor for strength.

For situations where highly accurate measurements or speed of reading is more important the Model 101 Flat Tape Water Level Meter is also available.

### Operating Principles

The Model 102 Water Level Meter uses a 9V battery and a small diameter probe on narrow coaxial cable.

When the probe enters water the electrical circuit is completed, sending a signal back to the reel where a light and clearly audible buzzer are activated.

The water level is then determined by reading the cable at the top of the borehole, casing or tube and by accounting for the distance from the point of measurement to the nearest marking on the cable.

### Features

- Narrow** - 1/4" (6 mm) probe excellent for use in 3/8" ID (10 mm) flexible tubing
- Low Cost** - Fewer markings allow a lower cost. For closer markings see Model 101.
- Long Life** - Rugged, free-standing reel
  - Strong, flexible coaxial cable
  - Replacement probes, cables and parts
- Optional** - Carrying bag with shoulder strap

### Probes

Model 102 probes are designed with segmented weights for flexibility. The Teflon® tip uses a recessed design to minimize signals in cascading water.

- P1** 1/4" dia. x 1.5" long (6.4 mm x 38 mm) stainless steel, with 12 weights weighing 2.5 oz (70 g).
  - suitable for accessing narrow diameters
- P2** 3/8" dia. x 1.5" long (10 mm x 38 mm) brass with 10 weights weighing 4.6 oz (130 g).
  - heavier probe for situations where weight is more important than size.



### Reel

The high quality reel has an easy access battery drawer, an excellent brake, convenient carrying handle and a sturdy, stand-alone design. It has been ergonomically designed to be comfortable in use and stable when placed on the ground. It has an on/off sensitivity switch, battery test button, self-rotating winding handle, light and buzzer. The tape guide can be used to protect the cable from damage on rough casing and help the probe hang away from wet walls in the well.

The sensitivity control allows the buzzer to be turned off while in cascading water, or when lowering to the bottom of a well. It ensures a clear signal in both high and low conductivity conditions. The transistorized, waterproof circuit board which powers the unit is located in the hub.

### Lengths and Measurement Options

Stock lengths are:

- 100', 300', 500', 750' and 1000'
- 30m, 100m, 150m, 250m, and 300m.
- Other lengths are also available.

The coaxial cable has a tinned copper braided shield for flexibility and a stranded stainless steel central conductor for strength. The cable jacket is of heavy duty polyethylene for durability.



Markings are at 5 ft. or 1 m intervals, with closer markings available, on request. Markings are permanently adhered to the cable to prevent them from moving.

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