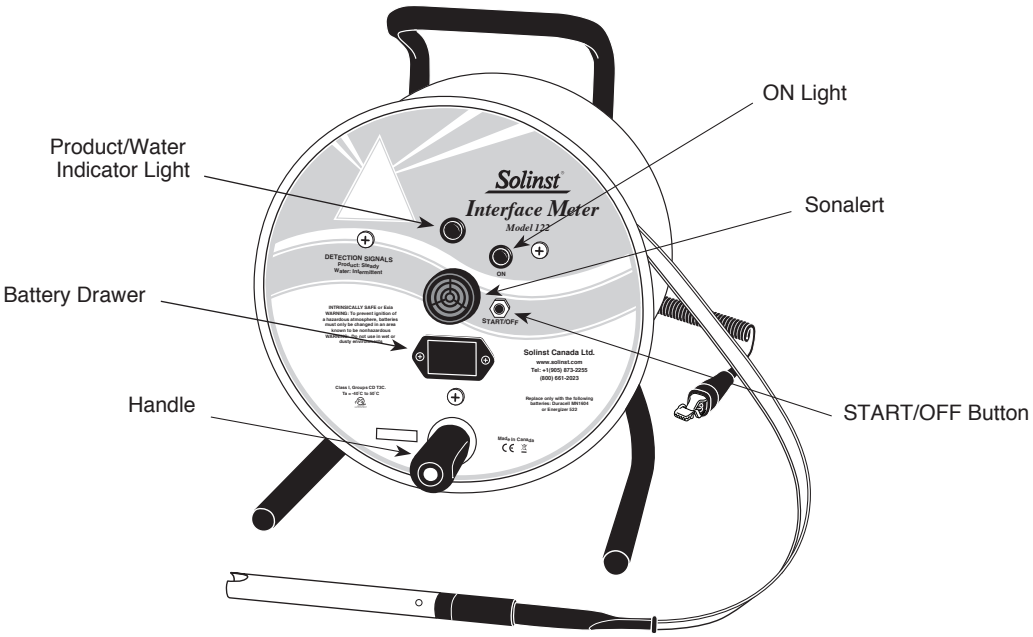


Operating Principle

The Solinst Model 122 Interface Meter has a narrow 5/8" (16 mm) diameter probe and uses laser-marked PVDF flat tape. It is certified to CSA Standards, for use in hazardous locations Class 1, Groups C & D. It has an infra-red circuit which detects the presence of a liquid. A conductivity circuit differentiates between conductive liquid (water) and non-conductive liquid (LNAPL or DNAPL product).

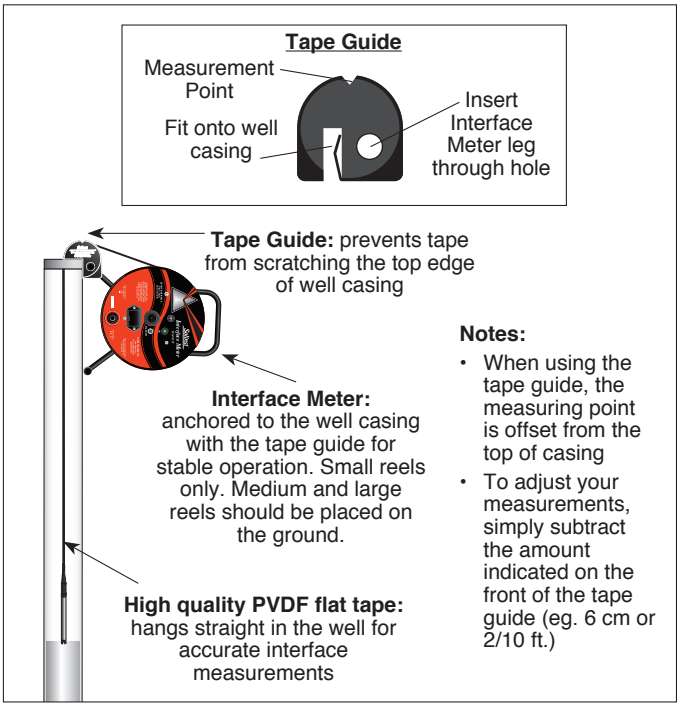
Equipment Check

Before beginning any measurements, check the electronics and battery condition by pushing the 'START/OFF' button. A brief tone and red light indicate that the meter is functional.

A flashing green light indicates the meter is on. It will automatically turn off after 10 minutes to preserve battery life.

Using the Tape Guide

1. The tape guide has been designed to: improve accuracy when reading interface measurements; to prevent the laser-marked PVDF flat tape being cut by well casing; and to allow the tape and probe to hang straight from the side of the well.
2. If interface measurements are being taken in a 2" dia well then simply fit the small end of the tape guide onto the edge of the well casing.
3. The small end must be inserted if the Interface Meter is to be suspended from the tape guide.
4. Insert the leg of the Interface Meter into the hole on the Tape Guide (small reels only).
5. Once inserted, rest the Interface Meter on the side of the well casing.



Field Measurements

IMPORTANT

1. To meet safety requirements and to protect the electronics from damage, always ground the meter by attaching the grounding clip to the metal well casing or to a suitable ground rod.

Continued overleaf...

2. Push the 'START/OFF' button. A brief tone and light indicate that the meter is functional and the flashing green light indicates that the meter is on. The meter automatically turns off after 10 minutes. Press the 'START/OFF' button as necessary during operation to turn the meter back on.
3. Place the slotted part of the tape guide onto the edge of the well casing. Lay the Interface Meter laser-marked PVDF flat tape into the groove on the top of the tape guide. Measurements will be read at the apex of the V-notch on the tape guide.

> **Note:** When using the tape guide, remember to subtract the compensation factor stamped onto the side of the guide from each measurement.

4. A steady tone and light indicates a non-conductive liquid (e.g. product). An intermittent tone and light indicates a conductive liquid (e.g. water).
5. For floating product (LNAPL), take the air/product interface measurement on the way into the liquid, and the water/product interface on the way up. When passing through product into water, some product may adhere to the probe sensors due to surface tension. Therefore, when water is detected below product, the probe should be raised and lowered rapidly in a short vertical motion to remove any product that may have been carried down with the probe.
6. The water/product interface should then be measured as the probe is raised very slowly back up. Once the interface is detected the probe can be raised and lowered in small increments to precisely determine the interface.
7. Repeat measurements to confirm water/product interface.
8. To determine the thickness of product, subtract the water/product interface from the product/air interface.
9. To determine if there is any sinking product (DNAPL) in the well, continue lowering the probe slowly. If steady signals activate, determine the top of the sinking layer by reading directly from the PVDF flat tape. Continue lowering the probe slowly until the tape slackens when the well bottom is reached. Read the level directly from the PVDF flat tape and subtract one from the other to determine thickness.
10. Upon completion of readings clean the tape and probe; as described in the Cleaning and Maintenance section.

Cleaning and Maintenance

After each use, the laster-marked PVDF tape should be wiped clean and carefully rewound onto the reel.

The probe should be cleaned as follows:

- Wash probe thoroughly with a non-abrasive mild detergent. **DO NOT USE ANY SOLVENTS**. Use a soft cloth around the pins on the end of the probe to remove all product. Use the brush provided to remove all product from inner part of the probe.

  USE LUKE-WARM, NOT HOT WATER. DAMAGE TO THE PROBE MAY RESULT.
- Rinse probe thoroughly with distilled water, wipe dry.
- Return the probe to the holder.

Other suitable cleaning method:

- Steam clean the PVDF flat tape only.

Battery Replacement

Push the battery drawer in and up and then release. The battery drawer should eject slightly, allowing it to be pulled out. Replace the 9V alkaline battery.

Other General Tips:

1. The probe should be cleaned after each use.
2. Always use the grounding cable.
3. Do not drop probe: damage to probe tip may result.
4. If battery is weak, the start tone will not sound, and flashing "green" light will be off. Replace the 9V alkaline battery.
5. Before storage, make sure the meter is turned off. If the Interface Meter is going to be stored for longer than two months, the 9V alkaline battery should be removed to avoid potential leakage.
6. The meter can be checked by placing the probe in distilled (non-conductive) water or pure phase product, for example lamp oil (**avoid bright sunlight during testing and resting the probe on the bottom of the container**). A steady tone and light should be observed.

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