

Solinst Model 122 Interface Meters: Understanding Applications & Options

Carefully review these points to better understand the features of this popular Solinst product. This reference will help you to guide your clients to make the right decision when it comes to selecting and using an Interface Meter for their next project.



Helping Clients Understand Solinst Interface Meters:

1 What are Interface Meters used for?

Interface Meters are mainly used to detect the presence, or absence, of product (e.g. hydrocarbons, diesel fuel, oil – fluids that have very low electrical conductivity).

Petroleum products can be light and float on top of water (LNAPL) or are heavier than water and sink (DNAPL). Solinst Interface Meters can measure both of these phases.

Most commonly, clients use Interface Meters to detect product phases in wells, but they are also used in tanks where clients are more often concerned if there is any water present in a tank used to store product.



2 How do Interface Meters work?

Simply, the meters provide two different signals depending on if they are in product or a fluid like water that is conductive.

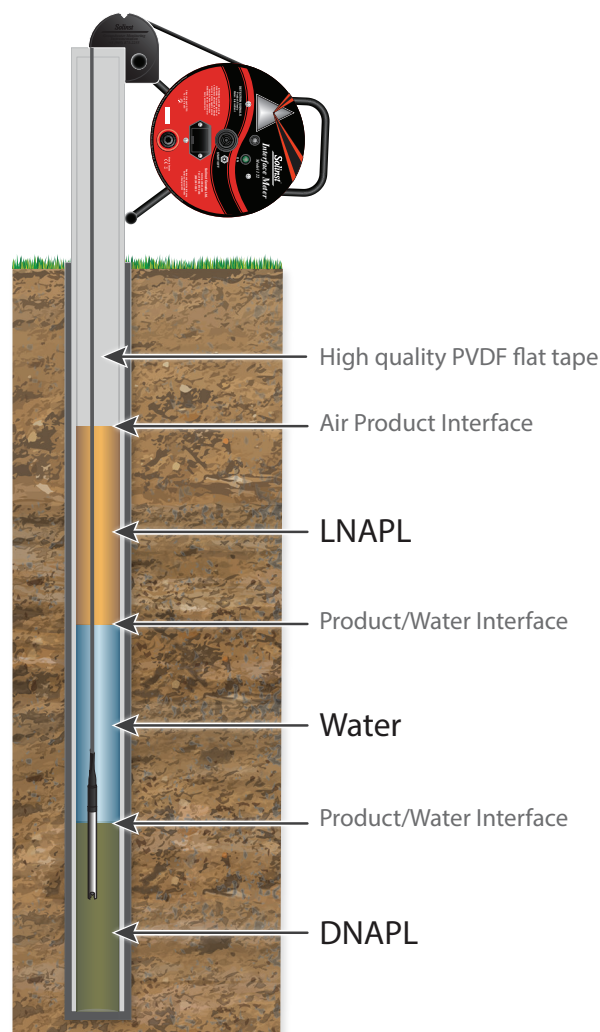
To detect liquids, Solinst Interface Meters use an infra-red beam and detector. When the probe enters a liquid the beam is refracted away from the detector and an audible tone and light is emitted.

If the liquid is non-conductive (as is the case with LNAPL and DNAPL) a steady tone and light signal the presence of product. If the fluid is conductive (water), a conductivity circuit is completed. This overrides the infra-red circuit, and the tone and light are intermittent.

Note: check out this animation, which shows the operating principles of the Solinst Interface Meter:
<https://www.solinst.com/products/level-measurement-devices/122-interface-meter/product-tour/animation.php>



Recently enhanced P8 Probe with upgraded firmware; able to perform even in unique degraded oil applications.



3 What types of Solinst Interface Meters are available?



122 PVDF Flat Tape



122M PVDF Cable

Solinst offers two types of Interface Meters, the Standard Model 122 and the Model 122M Mini.

Both models have the same accurate P8 Probe and detect product versus other liquids using the same principles.

Their main difference, other than the size of reel and length of tape (the 122M has a small mini reel and only comes in 80ft or 25m lengths), is the cable/tape. Both are made from PVDF and are laser marked, but the 122M uses a narrow, white PVDF cable.

The Standard 122 units have Solinst PVDF flat tape that is also compatible with our Model 101 and 107 Meters.

4 Can Solinst Interface Meters be used in Hazardous locations?

Both models have been certified for use in hazardous locations, Class I, Div 1, Groups C&D (CSA Standards).

In addition, they both have ATEX certification under directive 94/9/EC, as II 3 G Ex ic IIB T4 Gc.

Note: The grounding strap is a safety essential when the meter is used in potentially explosive environments; it also serves to protect the electronics.



Grounding Clip

5 What accessories are included with Solinst Interface Meters?

The Standard Model 122 Includes a Tape Guide, Carry Bag and a Cleaning Brush.

The 122M Mini is only provided with a Cleaning Brush. Due to its smaller size many clients prefer to transport the meter in their own backpack. Also, the reel is too compact to conveniently mount a Tape Guide for storage. These items can be purchased separately for the 122M, if required.

