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Model 122M Data Sheet

Mini Interface Meter

Model 122M - Laser Marked Cable

Solinst Mini Oil/Water Interface Meters give clear and accurate measurements of product level and thickness in wells and tanks. Determination of both light (floating) non-aqueous phase liquids (LNAPL) and dense (sinking) non-aqueous phase liquids (DNAPL) is quick and easy.

The Model 122M Mini Interface Meter with laser marked cable is a convenient small version, which can easily fit in a backpack or an optional custom mini carry case. It uses narrow laser marked cable in 25 m or 80 ft lengths.

The Mini Interface Meter enhanced electronics include automatic circuitry testing; 300 hours of on-time battery life; clear signals; and high accuracy. The circuits are powered by one standard 9V battery housed in easy-access drawer in the faceplate.

Also available is the standard Solinst Model 122 Interface Meter with laser marked flat tape in lengths up to 300 m (1000 ft).

Probe

The 122M uses the P8 Probe, which is 16 mm (5/8") in diameter and stainless steel. It is pressure proof, up to 500 psi. The beam is emitted from within a Hydex cone-shaped tip. The tip is protected by an integral stainless steel shield, and is excellent for the vast majority of product monitoring situations. A cleaning brush is included with each Meter.



Model 122M P8 Probe

Laser Marked Cable

The cable is traceable to NIST and EU measurement standards.

The 3 mm (0.12") coaxial cable has a durable jacket with permanent laser markings each millimeter or every $1/100~\rm{ft}$. The cable has a braided copper outer conductor, a stranded stainless steel central conductor, and a smooth chemical-resistant surface that is easy to decontaminate.

LN2: Feet and tenths: with markings every 1/100 ft.

LN3: Meters and centimeters: with markings every mm.



Model 122 is approved for use in hazardous locations Class I, Div 1, Groups C&D based on CSA Standards and is ATEX certified under directive 94/9/EC as II 3 G Ex ic IIB T4 Gc



Features

- Sensor accuracy to 1.0 mm or 1/200 ft
- · Certified intrinsically safe
- 16 mm (5/8") diameter probe
- Easy access battery: minimum 300 hours of life
- Stable electronics with automatic circuitry testing
- Compact and easy to transport in a backpack
- Designed for rugged field use

Operating Principles

Product (Non-conductive liquid) = Steady light and tone

Water (Conductive liquid) = Intermittent light and tone

To detect liquids, the Model 122M Mini Interface Meters use an infra-red beam and detector. When the probe enters a liquid the beam is refracted away from the detector which activates an audible tone and light. If the liquid is a non-conductive oil/product the signals are steady. If the liquid is conductive (water), the conductivity of the water completes a conductivity circuit. This overrides the infra-red circuit, and the tone and light are intermittent.

Both sensors use exactly the same zero point, giving accuracy as good as $1.0\,$ mm or $1/200\,$ ft. The high accuracy enables the sensors to detect the slightest sheen of oil on the surface of the water.

Hazardous Locations Use

The Model 122M Mini Interface Meter with cable has been approved by QPS for use in hazardous locations, Class I, Div 1, Groups C&D based on CSA Standards. It is also ATEX certified under directive 94/9/EC, as II 3 G Ex ic IIB T4 Gc.

The ground cable is a safety essential when the meter is used in potentially explosive environments. It also ensures that the electronics are properly protected.

