TLC Meter
Temperature, Level, Conductivity
Model 107

The TLC Meter is ideal for profiling conductivity and temperature in wells and open water. It displays accurate measurements of conductivity and temperature on a convenient LCD display.

Conductivity measurements are read from 0 to 80,000 µS/cm with readings giving accuracy of 5% of reading or 100 µS (which ever is greater). Water level and probe depth measurements are read off the Solinst durable PVDF flat tape, which is accurately laser marked each millimeter or every 1/100 ft. Tape lengths are available up to 300 m (1000 ft).

For automated water level, temperature, and conductivity datalogging, Solinst also offers the Levelogger 5 LTC.

TLC Meter Reels

TLC Meter reels are ergonomically designed for ease of use. The reels feature a stand-alone design, convenient carrying handle, and sturdy probe holder. They are robust and smooth running. The battery is housed in a convenient drawer in the front of the reel, allowing quick replacement. The reels are equipped with a loud buzzer and light, LCD display, menu button, brake and a tape guide stored on the frame.

TLC Meter Specifications	
Operating temperature of reel:	-20°C to +50°C
Submerged operating temperature:	-20°C to +80°C
Probe temperature compensation range:	-15°C to +50°C (5°F to 122°F)
Temperature accuracy:	+/- 0.2°C or +/- 0.4°F
Conductivity ranges:	Full range: 0 to 80,000 uS/cm Calibrated range: 500 to 80,000 uS/cm
Conductivity accuracy:	5% of reading or 100 µS (which ever is greater)
Wetted materials (tape/probe):	PVDF, Santoprene, Delrin®, Viton®, 316 stainless steel, platinum plated copper
Probe pressure rating:	Fully submersible to depth of all tape lengths
Reel IP rating:	IP64 (dust and splash proof)

Conductivity Made Easy

- Tape lengths to 300 m (1000 ft)
- Rugged Solinst reel and accurate PVDF laser marked tape
- Probe diameter 19 mm (3/4")
- Standard 9V alkaline battery gives 90 hrs. of use
- Auto-Off after 8 minutes

Applications

- Profiling conductivity and temperature in wells and open water
- Salinity studies
- Saltwater intrusion investigations
- Testing for water quality impairments from road salt
- Tracer tests
- General indication of chemical contamination level
- Early warning of changes in water quality at:
  - Landfills
  - Industrial sites

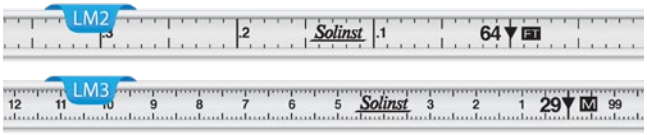
for further information please refer to www.gsg-e-shop.com | Phone no.: +49 931 / 30 40 8-0

- all rights reserved -

Rugged PVDF Flat Tape

The high quality PVDF flat tape reels smoothly, remains flexible and hangs straight in the well, regardless of temperature. The flat tape is mounted on a sturdy, well-balanced Solinst reel. Permanent laser markings each 1/100 ft or millimeter allow accurate readings.

Stranded stainless steel conductors and copper coated steel conductors resist corrosion, provide strength and are non-stretch. They make the tape easy to repair and splice. The dog-bone design reduces adherence to wet surfaces.



LM2: Each 1/100 ft, 1/10 ft and ft
LM3: Each mm, cm and m

Length Options

Solinst Model 107 TLC Meters are available on reels in the following standard lengths:

Small Reel	30 m	100 ft.	**Medium Reel**	150 m	500 ft.
	60 m	200 ft.		250 m	750 ft.
	100 m	300 ft.		300 m	1000 ft

TLC Probe

The 19 mm (3/4") diameter TLC Probe is submersible the full length of the tape. The tape seal plug design allows the probe to be quickly and easily replaced, if required.

Size: 19 mm (3/4" dia.)
Weight: 3.5 ounces (98 g)

Solinst TLC Meter with Power Winder Installed to Make Temperature and Conductivity Profiling Applications Easier

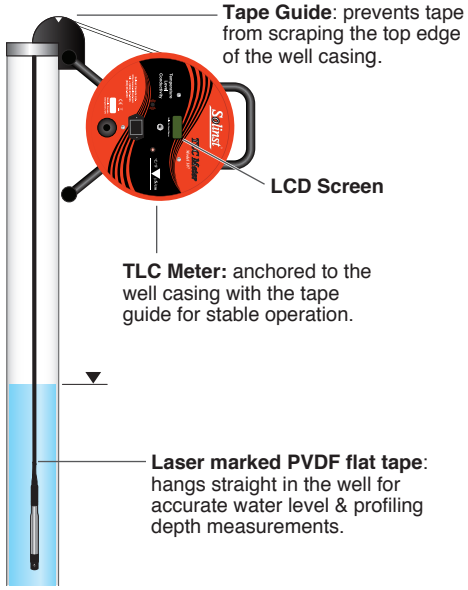
Other Options

Power Winder: Lightweight and easy to attach to small and medium reel frames, the Power Winder is designed to allow effortless winding of longer lengths of tape. Simply uses a standard power drill to operate (see 101 Power Winder Data Sheet).

Carrying Case: Small and medium padded nylon carrying cases are available, as an optional extra. Their 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 and other spare parts are available.

Tape Guide



A Tape Guide/Datum allows the depth measurement to be read at the marked position on the Tape Guide, to give reliable, repeatable, accurate depth measurements when profiling a well. The Tape Guide protects the tape from damage on rough edges of well casing.

for further information please refer to www.gsg-e-shop.com | Phone no.: +49 931 / 30 40 8-0 - all rights reserved -

Water Level & Depth Measurements

When the zero point of the probe enters water, an electric circuit is completed, briefly activating a buzzer and light and blanking out the screen for about 1 second. The depth to water is then read off the tape. When the TLC Meter is withdrawn from the water, a short buzz gives a warning that the probe is now out of water.

Water Temperature Measurements

The TLC Meter operates in a range from -15ºC to +50ºC (5ºF to 122ºF). You may choose to have the readings displayed on the LCD screen in ºC or ºF. Accuracy is +/- 0.2°C in Celsius, or +/- 0.4°F in Fahrenheit. The 'smart' TLC probe automatically adjusts the measured conductivity values to display as specific conductance standardized to 25ºC. This provides standardized, repeatably comparable measurements.

The full temperature range of the TLC Meter is -20ºC to 60ºC. The minimum temperature display is -20ºC; a temperature below -20ºC will display ^^^^^^. The maximum temperature display is 60ºC; a temperature above 60ºC will display ^^^^^^.

When the probe is turned on, the LCD screen displays both conductivity and temperature.

Water Conductivity Measurements

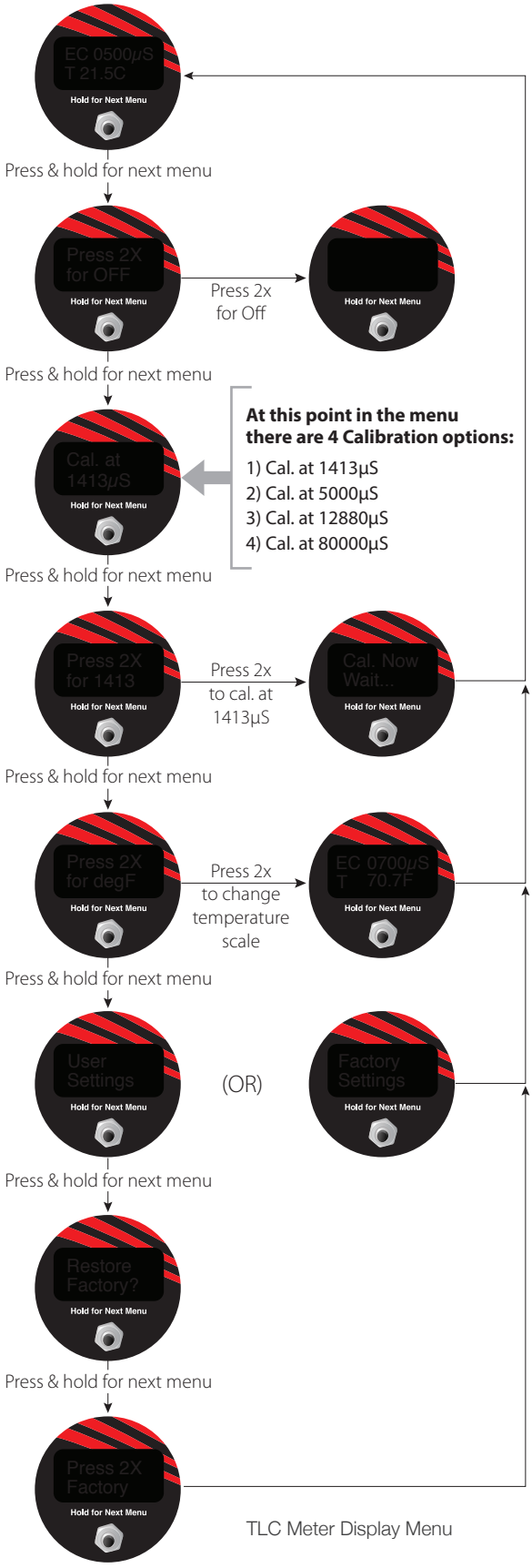
The TLC Meter uses a 'smart' conductivity sensor with platinum electrodes to measure conductivity. The conductivity is displayed on the screen along with the associated temperature measurement. The 'smart probe' displays conductivity that has been standardized to 25°C, i.e. Specific Conductance (displayed as EC). The conductance temperature coefficient is 2.0% per °C.

The full conductivity range 0 to 80,000 uS/cm and the calibrated range is 500 to 80,000 uS/cm. Calibration is simple, using 1413 µS, 5000 µS, 12,880 µS, and/or 80,000 µS solutions for 1, 2, 3, or 4 point manual conductivity calibrations.

Since conductivity measurements are temperature sensitive, a short wait of 20 seconds per degree Celsius of temperature change is required for the measurements to stabilize at each desired depth, before recording the three measurements.

Conductivity & Temperature Display Menu

The display menu is simple to operate. When the unit is turned on, it will begin to display electrical conductivity and temperature readings, in or out of water. If the button is held down for 2 seconds and released, the display moves to the next menu item. Press the button two times quickly in any given screen to achieve the displayed action.



TLC Meter Display Menu

for further information please refer to www.gsg-e-shop.com | Phone no.: +49 931 / 30 40 8-0

- all rights reserved -