

SX650 Conductivity/Resistivity/TDS/Salinity Pen Tester

Manual

Introduction

Thank you for purchasing the SX650 conductivity meter. Please read the user manual carefully before use and follow the instructions.

Set includes

SX650 Pen Tester, 1413 $\mu\text{S}/\text{cm}$ calibration solution and CR2032 Battery in a case

Technical Specifications

Measuring range: Conductivity 0 ~ 50.0 mS/cm
 Resistivity 0 ~ 20.0 m Ω ·cm
 TDS 0 ~ 35.0 g/l
 Salinity 0 ~ 25.0 ppt
 Temperature 0 ~ 50.0 °C

Accuracy: Conductivity $\pm 1.0\%$ F.S;
 Temperature $\pm 0.5\%$ °C

Automatic temperature compensation in the range 0 - 50 °C

Automatic calibration: 1-point calibration (1413 $\mu\text{S}/\text{cm}$)

Temperature compensation coefficient: 2.0 %/°C.

Power supply: 2 x battery type CR2032

IP-rating: IP57

Dimensions: 148 x 29 x 14 mm; Weight: 38 g

Instructions

1. **Power on:** Short press -- <1.5 s
2. **Calibrate:** Long press -- >2 s
3. **Selecting measurement parameter:** hold button **COND** → **RES** → **TDS** → **SAL** → **COND**
4. **Calibration:** Rinse the electrode in distilled water and dry it. Immerse the electrode in the standard solution 1413 $\mu\text{S}/\text{cm}$. Move the device gently. Then leave the device and wait until the measurement is stable. Hold the button for about 2 seconds until **CAL** appears on the display. If the calibration value flashes **1413 $\mu\text{S}/\text{cm}$** , the calibration stops after a few seconds. The meter returns to measurement mode and the display shows **(M)**.
The device only needs to be calibrated in Cond mode and can then be switched to TDS, salinity etc.
5. **Measurement:** Rinse the electrode in distilled water and dry it. Immerse the electrode in the measurement solution and wait until the measurement is stable.
If you hold down the button, you can read the corresponding values of resistivity, TDS, and salinity.

Notes

- a) The device has already been calibrated during production and can be used directly. We recommend one calibration per month. New or long unused electrodes should be calibrated as well.
- b) The instrument uses advanced automatic frequency conversion and voltage regulation technology, thus extending the measuring range the electrode with the cell constant ($K=1$) up to 5-10 times as wide and requires only one point calibration to meet the accuracy requirements. This is the unique calibration function of the meter.
- c) The conductivity calibration solution is not buffered. Take special care to avoid pollution. Replace after repeated use.
- d) The conductivity electrode is coated with black platinum. This setup minimizes polarization and maximizes the measuring range. Do not touch the electrode to avoid damaging the platinum black coating.
- e) The electrode is replaceable. Model number of the spare electrode is SX655. Please go to www.aperainst.de to see a video tutorial on how to replace it.
- f) When not in use, the device turns off on its own after 10 minutes.
- g) Replace the batteries when  appears on the screen.
- h) Change temperature unit: When the meter is turned off, hold the CAL button until the meter restarts. The temperature unit is switched ($^{\circ}\text{C}$ - $^{\circ}\text{F}$).

Warranty

We warrant this instrument to be free from defects in material and workmanship and agrees to repair or replace free of charge, at option of APERA INSTRUMENTS (Europe) GmbH, any malfunctioned or damaged product attributable to responsibility of APERA INSTRUMENTS (Europe) GmbH for a period of **two years** from the delivery (a **six-month** limited warranty applies to electrodes). Warranty period is the time limit to provide free service for the products purchased by customers, not the service life of the tester or electrodes.

APER A INSTRUMENTS (Europe) GmbH
Wilhelm-Muthmann-StraÙe 18
42329 Wuppertal, Germany
Contact: info@aperainst.de
Website: www.aperainst.de
Tel.: +49 202 51988998