

## Portable Conductivity/TDS/Salinity Meter



### Portable Conductivity/TDS/Salinity Meter (Model: MSQI651SWISS)

#### Key Features:

- **Multi-point Calibration:** Supports 1 to 5-point calibration with automatic recognition for conductivity standards to ensure accurate readings.
- **Automatic Electrode Diagnosis:** Displays calibration points and factors to ensure the electrode is functioning correctly.
- **Selectable Measurement Modes:** Offers multiple modes for conductivity, TDS (Total Dissolved Solids), salinity, resistivity, and temperature with settings for applications like seawater or pure water compensation.

- **Automatic Temperature Compensation (ATC):** Provides accurate readings across a wide temperature range (0-105°C or 32-221°F).
- **Auto-Read Function:** Automatically locks the measurement when it reaches a stable endpoint, eliminating manual intervention.
- **Calibration Due Alarm:** Alerts the user when calibration is due, ensuring measurement consistency.
- **Energy Saving:** Auto-power off feature conserves battery life when the meter is idle.
- **Customizable Settings:** Allows users to set calibration points, stability criteria, temperature units, date, and time.
- **Factory Reset Function:** Automatically restores factory settings for convenience.
- **Memory Capacity:** Stores up to 500 data sets for easy recall and record-keeping.
- **USB Communication Interface:** Facilitates easy data transfer to a PC for further analysis or management.
- **Multi-Mode Power Options:** Operates on AA batteries, a power adapter, or a USB port for flexibility in usage.

### Technical Specifications:

- **Conductivity Range:**
  - Standard: 2  $\mu$ S/cm to 20,000  $\mu$ S/cm
  - Optional:
    - 0.01  $\mu$ S/cm to 0.1  $\mu$ S/cm
    - 0.1  $\mu$ S/cm to 2  $\mu$ S/cm
    - 20,000  $\mu$ S/cm to 200 mS/cm
  - Accuracy:  $\pm 0.5\%$  FS
  - Resolution: 0.001, 0.01, 0.1, 1
  - Calibration Points: 1 to 5 points
  - Calibration Solutions: 10  $\mu$ S/cm, 84  $\mu$ S/cm, 1413  $\mu$ S/cm, 12.88 mS/cm, 111.8 mS/cm

- **TDS Range:**
  - 0 to 10,000 ppm, 100 to 1000 ppm, 10 to 200 ppt
  - Accuracy:  $\pm 1\%$  FS
  - Resolution: 0.01, 0.1, 1
  - TDS Factor: Adjustable between 0.1 and 1.0 (default 0.5)
  
- **Salinity Range:**
  - 0.00 to 42.00 psu, 0.00 to 80.00 ppt
  - Accuracy:  $\pm 1\%$  FS
  - Resolution: 0.01
  
- **Resistivity Range:**
  - 0.00 to 20.00 M $\Omega$ •cm
  - Accuracy:  $\pm 1\%$  FS
  - Resolution: 0.01
  
- **Temperature Range:**
  - 0 to 105°C (32 to 221°F)
  - Accuracy:  $\pm 0.5^\circ\text{C}$  ( $\pm 0.9^\circ\text{F}$ )
  - Resolution: 0.1°C (0.1°F)
  
- **Temperature Compensation:**
  - 0 to 100°C (manual or automatic)
  - Temperature Coefficient: Linear (0.0-10.0%/°C), non-linear, pure water

- **Cell Constant:** K=0.1, 1, 10
- **Stability Criteria:** Low or high stability options
- **Calibration Due Alarm:** Set reminder between 1 to 31 days or off
- **Hold Function:** Manual or auto endpoint hold
- **Auto-Off:** Automatically turns off after 10, 20, or 30 minutes of inactivity
- **Memory:** Stores up to 500 data sets
- **USB Interface:** For easy data transfer to PC
- **Display:** Custom LCD (80x60mm)
- **Power Requirements:**

3× 1.5V AA batteries or DC5V power adapter

Battery Life: Approximately 150 hours (with backlight off)

- **Dimensions:** 171 x 86 x 31 mm
- **Weight:** 302g

#### Applications:

- **Water Quality Monitoring:** Ideal for measuring conductivity, TDS, salinity, and resistivity in various environmental conditions.
- **Aquaculture & Fisheries:** Essential for monitoring water quality parameters in fish farming and aquatic environments.
- **Laboratories:** Used for research and testing in academic and commercial laboratories for water analysis.
- **Industrial Applications:** Suitable for industries requiring precise monitoring of water or solution quality, such as manufacturing or water treatment.

This versatile and highly accurate portable meter is essential for various industries and research fields that require precise water quality measurements.