

EC310F Conductivity Meter Operation Quick Guide

1. Specification

Parameters: Conductivity, Resistivity, TDS, Salinity, Temperature

Conductivity Range: 0.000 $\mu\text{S}/\text{cm}$ ~ 500 mS/cm

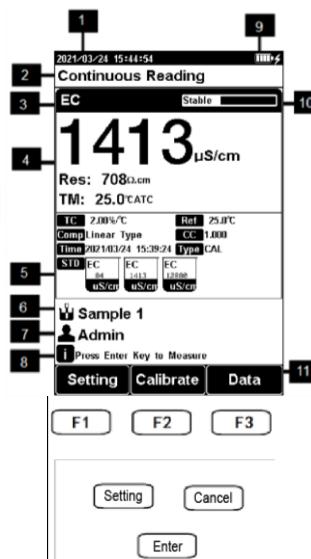
Resistivity Range: 5.00 $\Omega\cdot\text{cm}$ ~ 20.00 M $\Omega\cdot\text{cm}$

TDS Range: 0.00ppm ~ 300ppt

Salinity Range: 0.0 ~ 80.0ppt

Temperature Range: -5.0 ~ 110 $^{\circ}\text{C}$, 23.0 ~ 230 $^{\circ}\text{F}$

2. Screen Icons



EC310F Conductivity Meter Operation Quick Guide

2.1. Annotation

No.	Explanation	No.	Explanation
1	System time	7	User ID
2	Reading mode	8	Tips information
3	Measurement parameters	9	Power information
4	Measurement box	10	Reading states
5	Settings	11	Function buttons
6	Sample ID		

2.2. Symbol

Symbol	Explanation
	Reading status, display the measurement status of reading, stable, locked each indicates that the processing, stable, and reading completed.
ATC	Auto Temperature compensation
MTC	Manual temperature compensation
STD	Standard solution
	Standard solution for conductivity calibration
RES	Resistivity, Unit MΩ·cm, kΩ·cm, Ω·cm
TM	Temperature, unit $^{\circ}\text{C}$
CC	Cell constant
Ref	Reference temperature
TC	Temperature coefficient
Comp	Compensation mode

Symbol	Explanation
Type	Calibration type
Time	Calibration time
TDSF	TDS conversion factor

3. Preparation

1. Connect the EC electrode (e.g. k=1, ATC) to the meter.
2. Take off the electrode protection cap.
3. Rinse the conductivity electrode with DI water, dry out.
4. Switch on the meter.

4. Calibration

4.1. Cell Constant Setting

1. In the idle status, press "Setting" -"Parameters " to select the "Conductivity".
2. In the measurement status, press "Setting" -"Parameters " to select the "Conductivity".
3. In the idle status, press soft button F1 "Parameter Setting" -"EC Parameters".
4. For the "EC Cal Type", select the "Input Manually".
5. For the "Set Cell Constant", press the "Setting" key to edit the constant manually.

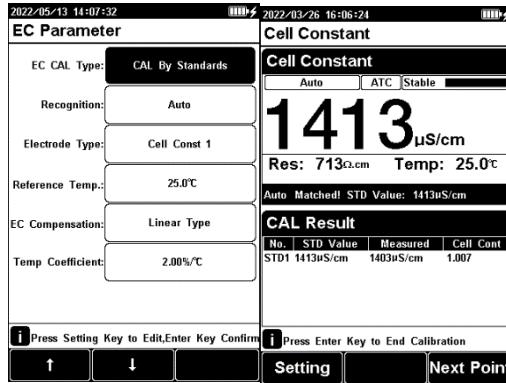
- For the Electrode Type, select the "Cell const 1".
- Press "Enter" key to save the setting and return to the idle status.

4.2. Manual Calibration

- In the measurement status, press soft button F1 "Parameter Setting" -"EC Parameters".
- For the Electrode Type, select the "Cell const 1".
- For the "Cal. Type" , select the "Cal by Standards".
- For the "Recognition", select the "Auto Mode".
- Press "Enter" to confirm and return.
- Prepare one or more standard conductivity solution (e.g., 1413 $\mu\text{S}/\text{cm}$ conductivity solution).
- Prepare a thermostatic bath, and set the temperature to $(25.0 \pm 0.1)^\circ\text{C}$.
- Place a standard conductivity solution in a thermostatic bath, and set the temperature to $(25.0 \pm 0.1)^\circ\text{C}$.
- Place the conductivity electrode into a standard solution.
- In the measurement status, press the "Calibrate" and enter into the calibration status.
- When the conductivity and temperature reading (e.g.1413 $\mu\text{S}/\text{cm}$, 25.0°C) are stable, press "Start".

EC310F Conductivity Meter Operation Quick Guide

- If choosing one-point calibration, press "Enter" to end the calibration.
- If choosing multi-points calibration (up to 3), press "Next" to calibrate the next standard solution.
- The meter saves calibration data automatically and turn to measurement status.



5. Measurement

- Setting.
 - Set the parameters (e.g. conductivity).
 - Set the reading mode (e.g. continuous reading, auto-reading, or timed format).
 - Set the temperature compensation (e.g., Linear compensation, temperature compensation coefficient 2.00%/ $^\circ\text{C}$).
 - Set the reference temperature (e.g. 25°C).

- Rinse the conductivity electrode with DI water, dry out.
- Put the measurement end of the electrode into the sample solution.
- When the reading is stable, press "Enter" to enter into measurement status.
- When the reading is stable, read the results.
- Press the "Save" to save the measurement results.
- During measurement, stored EC electrode in distilled or deionized water.
- After measurement, rinse the EC electrode with deionized water thoroughly and put on the electrode protection cap.

Note: For accurate measurement, please calibrate and measure at the same temperature.

