SUNTEX

Cond. Res. TDS Sal. ℃

Intelligent

SUNTEX EC-4310

Conductivity Transmitter

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Principle

Conductivity, which is highly dependent on the amount of dissolved salts, is a measurement of the level of ion concentration of a solution. In electrolytes, an ability to conduct electricity is via the ion traveling. As a result, the greater the ion concentration of the solution, the greater its conductivity (the lower the resistivity of the solution). Conductivity measurement is regarded as a fast, inexpensive and reliable way of measuring the ionic content in a solution. It provides an indicator of the efficiency for the filtering device, or for level of the purity, or concentration. Those are extensively applied in industrial pure water, process water, wastewater, drinking water, and many other industries.

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Premium Model

Combination with intelligent EC-4110 intuitive design and a robust shell of EC-4300 to be the latest model, EC-4310

- EC-4300, 1/2DIN

- EC-4110, 1/4DIN

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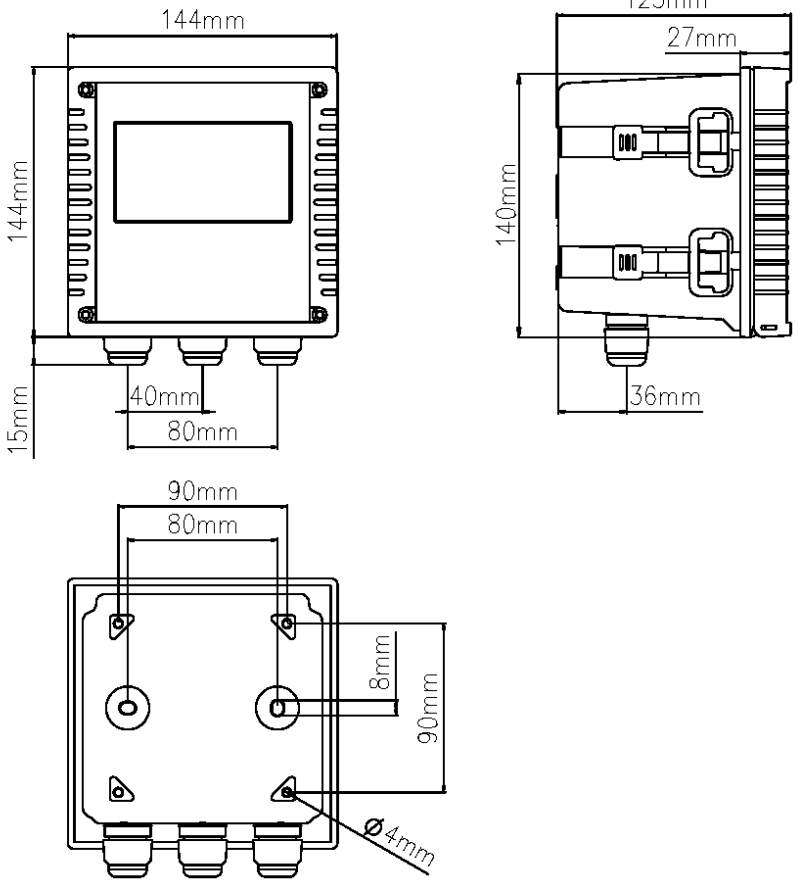
Dimensions



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Front Panel

Cover protection

- Waterproof and dustproof design with approval of IP 65 level

Large LCM display

- 144 x 144 mm transmitter with large screen, auto-sense backlight, contrast function, and separate LED indicator alarms for recognition even from far away place

Intuitive keypads

- Easy-to-use operation makes it suitable for users at all level

IP65

ISO 9001:2008 Certificate supplier

1 year warranty

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Front Clamshell Design for Easy wiring

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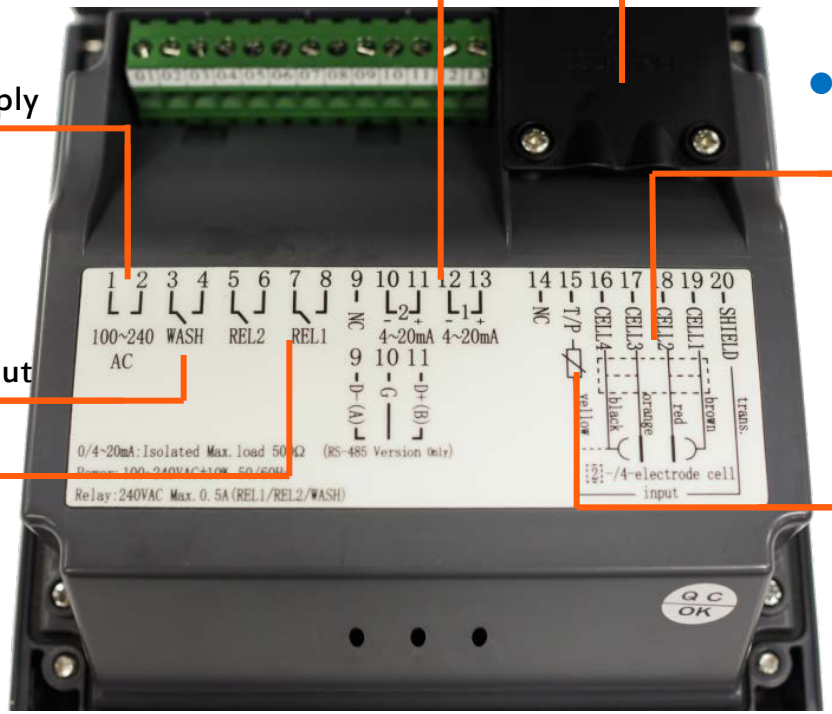
Wiring Illustrations

- Two sets of isolated current output at DC 0/4~20mA, max. load 500Ω
- Equipped with **electronic cover shield** to avoid the interference
- 100~240 VAC power supply
- Compatible with **2- or 4-electrode conductivity cell**
- Wash Timer contact output
- Automatic temperature compensation with **NTC30K, PT-1000, or PT-100**
- Selectable two limited contact output with programmable setpoint and hysteresis



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Informative Display

Here shows only the basic illustrations, but if you want to see more in detail, please refer to the operation manual

Readings

Status; measurement mode

Built-in clock

Temperature

Product adjustment

Linear compensation

Measuring unit

Compensation unit

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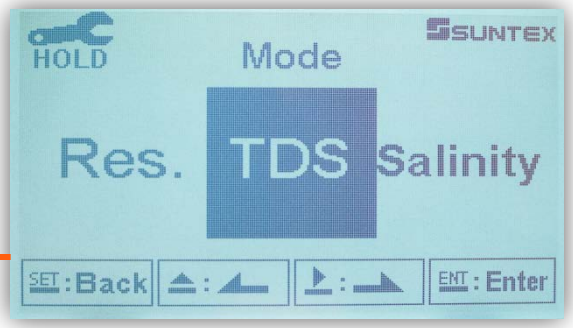
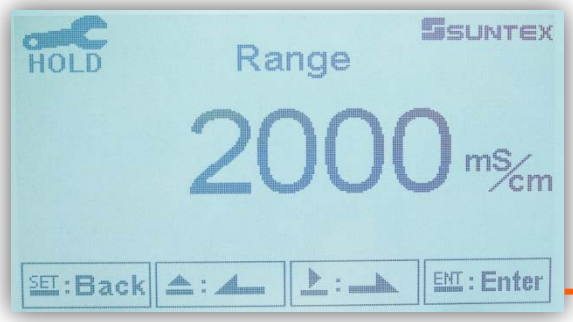
Outstanding Performance

Two more parameters

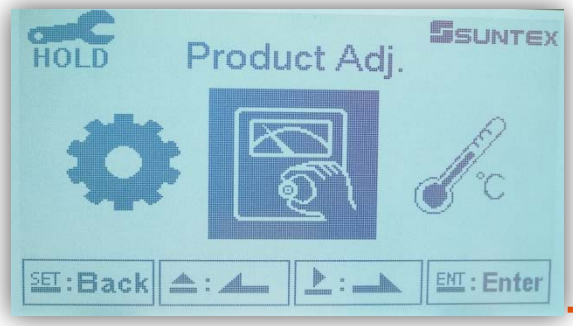
Equipped with **Total Dissolved Solids** & **Salinity** for more type of applications





Broader range

Max. conductivity range up to **2000mS/cm** with contacting conductivity sensor



Subtle correction

Fine tuning of product adjustments ensures higher accuracy

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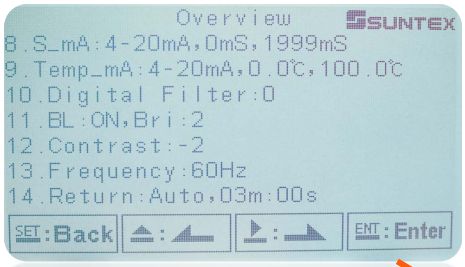
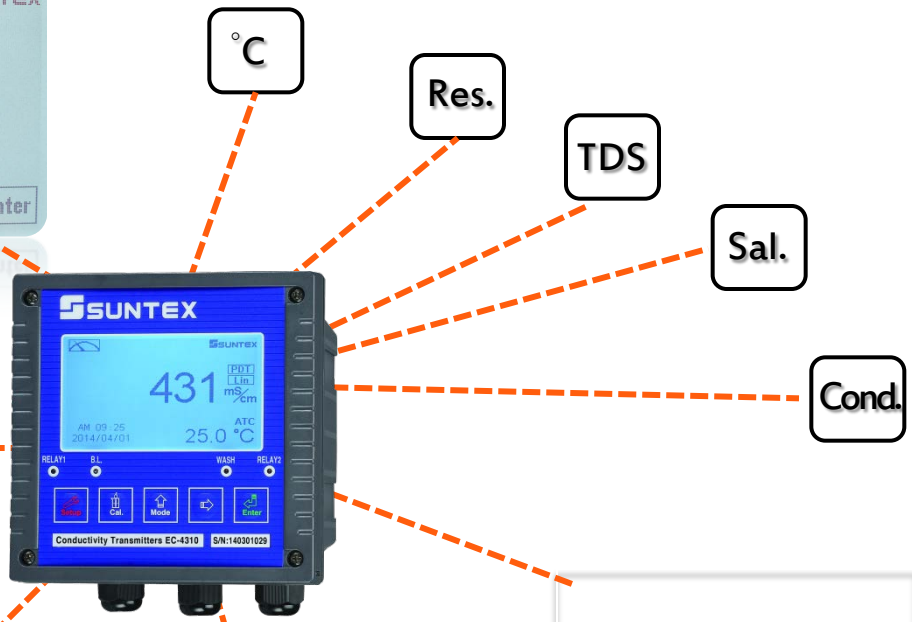
Overview



Versatile parameter



Compatible

2-electrode Res. cell

2-electrode Cond. cell

4-electrode Cond. cell

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4-electrode sensors

This conductivity sensor, 8-241, is a powerful sensor with state-of-the-art 4-electrode design. It provides broad measuring range (10.0μS/cm~500mS/cm) and robust shell made of CPVC and Titanium. It can be applied in the raw water, process water, cooling water, wastewater, etc. 8-242 sensor for PVDF version for high temperature application up to 120 °C.
The advantage rather than 2-electrode design is that it eliminates measurement errors resulted from polarization effects and thus enhances the greater stabilities and higher resolution

●8-241 conductivity cell

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Main Applications

●Pure / Ultrapure Water

Including MF or UF membrane filter system, reverse osmosis devices, ion exchange system for measuring the purity of the water and controlling the pure water equipments.

Range: 0.1 - 10 (μS/cm) or 0.1 - 10 (MΩ·cm)
[for pure water]
0.05 – 0.1 (μS/cm) or 10 –18.24 (MΩ·cm)
[for ultrapure water]

Water Treatment Plant

●Industrial Process Water

Including UPW recycling system, and process water recycling system. Also, the cooling water system and boiler water need to be filtered to prevent scaling and corrosion in heat exchangers, cooling tower, and boilers.

Range: 0.1 (μS/cm) - 50 (μS/cm)

Industrial Process Water/Chemical

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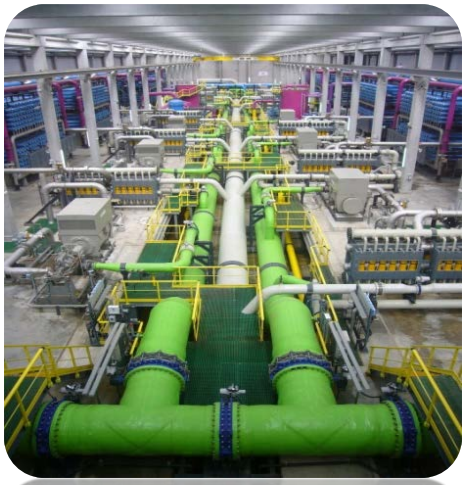
Broad Applications

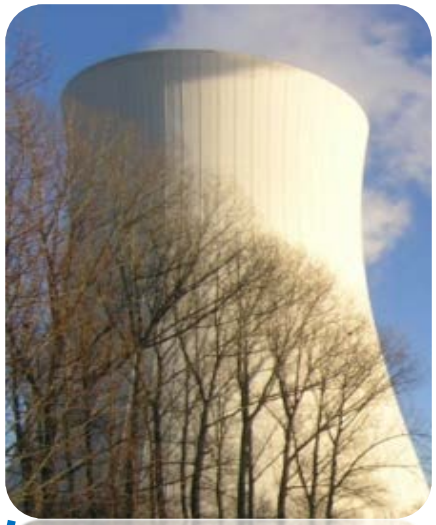
Drinking water

Range: 100μS/cm~1mS/cm



Desalination

Range: 1μS/cm~100μS/cm



Cooling water

Range: 50 μ S/cm~600μS/cm

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●Wastewater

For iron and steel industry, food industry, pulp and paper industry, complex organic industry, and many other industries, the conductivity of the wastewater must be controlled and required to meet the outflow standards of specific chemicals for reducing the effects to environment

Wastewater

Range: 1mS/cm~10mS/cm

●Scrubber

Scrubber system can be used to remove the harmful gaseous emissions from the process, especially acid gases, and conductivity measurement is very suited to measuring concentration of the scrubber chemical in batch scrubbers

Scrubber plant

Range: 300μS/cm~500μS/cm

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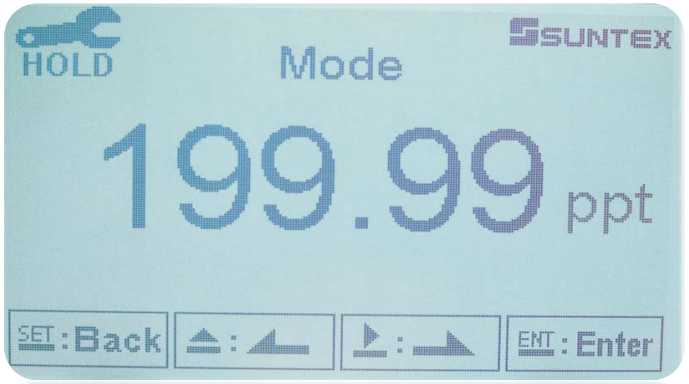
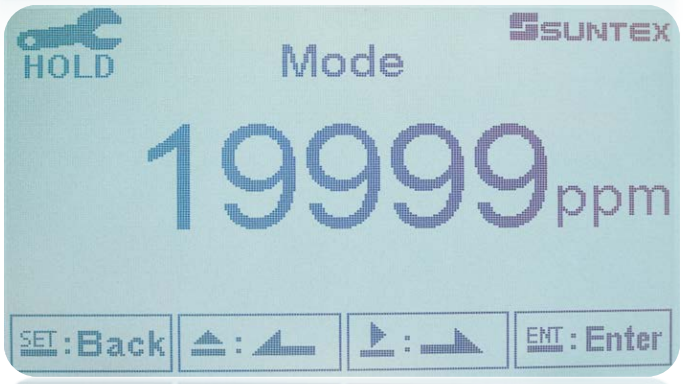
Flexible Measurements

For drinking water treatment, it's important to maintain a certain level of TDS, and there are two measuring unit, "ppm" or "ppt" for selection

Drinking water

Range: mostly<700μS/cm (TDS < 500 ppm)





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Versatile Measurements

Intelligent Resistivity/Conductivity/Salinity/TDS Transmitter with additional function of **Total Dissolved Solids** & **Salinity** measurement

TDS | Sal. | Cond. | Res. | °C

- Aquaculture treatment

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Fine Tuning of Cell Constant

The advanced product adjustment function is especially design for ultrapure water measurement to slightly adjust the cell constant factor and thus measurement. The considerate function not only increases the comparison calibration accuracy, but also provides great convenience for operation.

- Ultrapure water monitor

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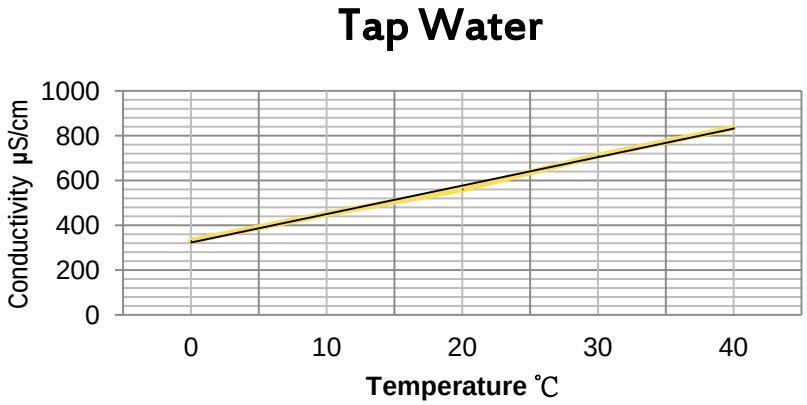
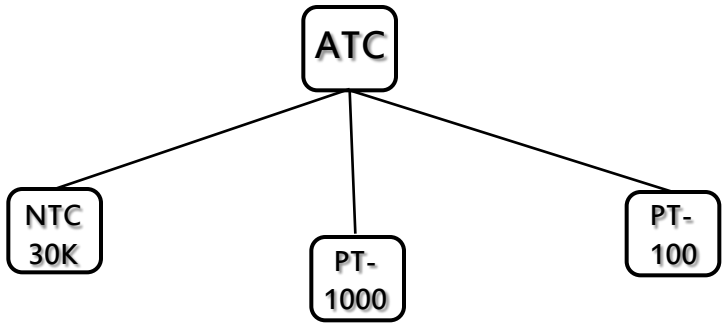
Temperature Compensation

The conductivity readings must be referred to a common reference temperature 25°C, and it varies more or less linearly with temperature in the most aqueous solutions.





With built-in temperature calibratoin function inside the transmitter, our EC-4310 has ATC mode with NTC30K, PT-100, or PT-1000 for selection that ensures reliable readings under fluctuating temperature conditions

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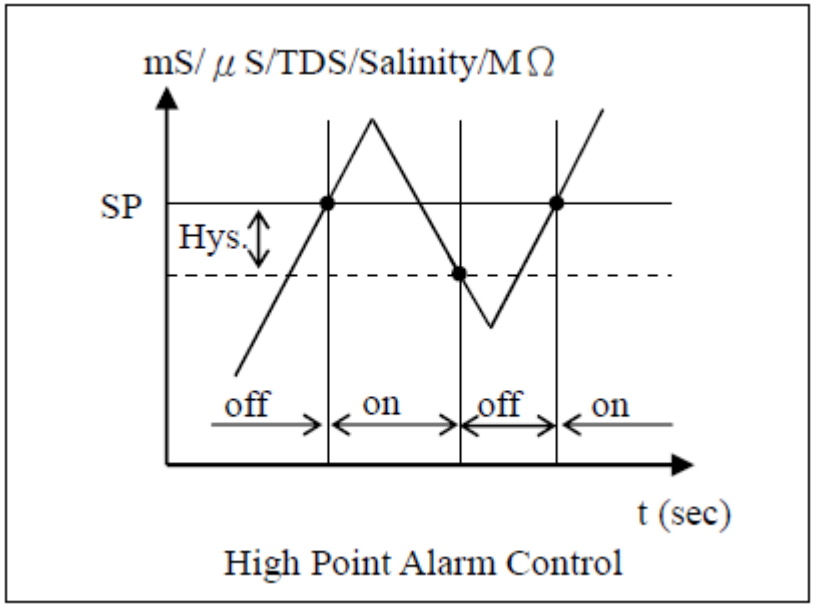
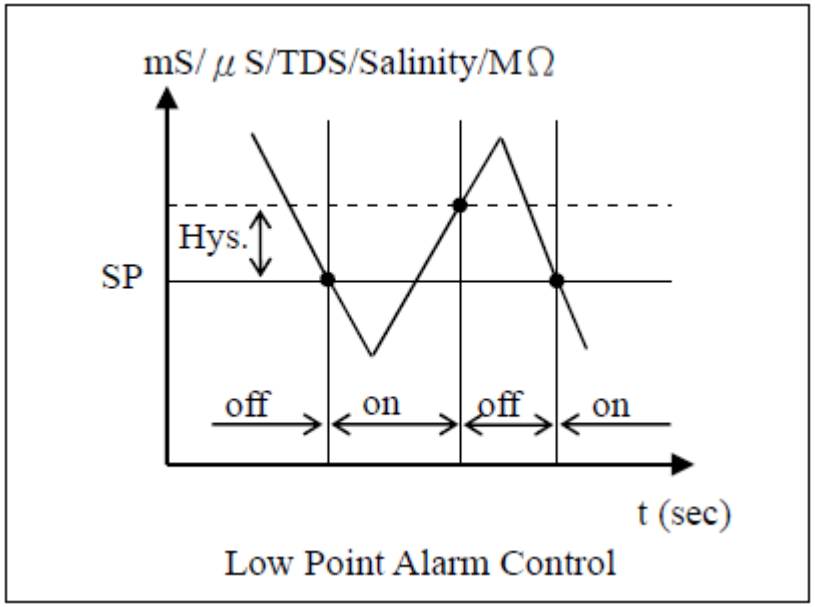
Programmable Control

Two set-point relays can be individually set as Hi or Lo point control which depends on users' needs. The hysteresis setting prevents rapid switching on and off as the reading drifts around the set point



High Point Alarm Control



Low Point Alarm Control

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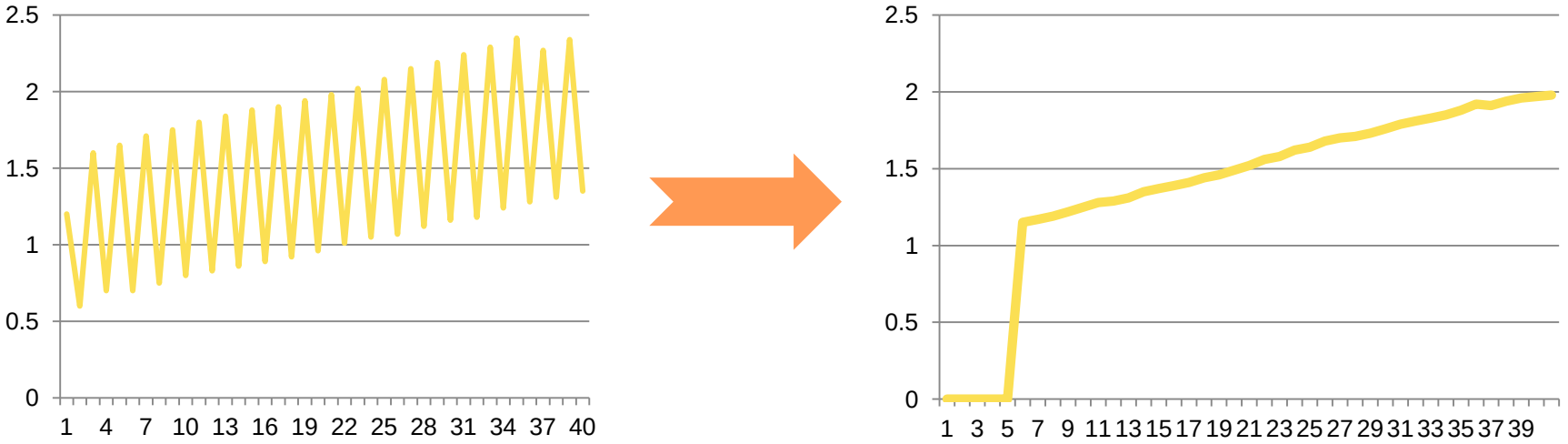
Digital Filter

Setting the number of sample to be moving averaged to become a readout. It enhances the stability of measurement. (Available from 1~60 second.) The higher setting the more stable result & insensitiveness to measurement change.

Note: "0" means auto setting according to the conductivity measurement
Ex: 5 samples to be averaged each time



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Thank You

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