

**[Product Description]**

- IoT Salinity Analyzer with dual interfaces: RS-485 and Wi-Fi web access. Allows remote or on-site monitoring directly via mobile phone, no sensor head or app required. Compatible with any type of sensor head or software worldwide, providing accurate and stable SC (Salinity Conductivity) values.
- Automatic Cleaning Function (Optional): Includes a built-in micro air pump. Features adjustable cleaning schedules, self-hold of the last reading, and configurable stabilization time, making it easy to extend maintenance intervals.
- Smart calibration function via mobile web interface: Replace the standard liquid bottle with the protective cap on-site, and navigate the calibration process via mobile web interface for ultimate convenience.
- Smart AI Function: Provides notifications for calibration and automatic cleaning status, and can self-assess electrode contamination or aging levels.

**[Features]**

- Integrated design with built-in IoT transmission and sensors; fully operational upon power-up with all functions
- Made of IP68-rated submersible, corrosion-resistant materials, allowing direct immersion in water without the need for protective casing.
- High-strength isolated cable allows for direct deployment; ensures stable signal transmission with surge protection for both power and IoT communication.
- Features temperature compensation, and utilizes a measurement method compliant with the Taiwan EPA regulation NIEA W218.51C for automatic monitoring facilities.
- Smart design stores calibration parameters, enabling direct on-site installation after calibration.
- Supports three-point calibration, using standard solutions or samples of known concentration.
- During calibration and automatic cleaning, the device holds the last measured value to prevent false readings, and clearly displays operational status: Calibrating / Auto-Cleaning / Stabilizing / Maintenance.
- Latest three calibration records (including date, slope, and calibration points) can be accessed via Web interface or RS-485.

**[Applications]:** Sewage, Seawater, Subterranean water, Aquaculture, River and lake detecting system.

**[Optional code]**

SC485

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Code 1

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Code 2

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Code 3

| Code1 | Function                                                     | Code 2 | Sensing end connector | Code 3  | Line/Air duct length         |
|-------|--------------------------------------------------------------|--------|-----------------------|---------|------------------------------|
| N     | No auto-cleaning                                             | C      | Quick connector       | N       | 3M                           |
| A     | Auto-cleaning (Including standard 12VDC air pump and nozzle) |        |                       | C       | 3 meters +quick connector    |
| A24   | Auto-cleaning (Including 24VDC air pump, nozzle)             | F      | Cable head            | Value N | Line length                  |
|       |                                                              |        |                       | Value C | Line length +quick connector |

Code 2: Quick connector



Code 2 :Cable head



## [Technical Specifications]

- RS-485 Modbus RTU. The mobile phone operates with web page(no app).
- Data resolution:16 bit(0.001%F.S).
- Surge protection:8000VDC.
- Protection: polarity 、 overload 、 short circuit.
- Measurement principle: Graphite electrodes measures impedance to calculate salinity.
- Installation method: submerged 、 three way 、 intubation.

## [SC Specification]

| SC Specification            |                                                                      | Temperature Specification |                                                                  |
|-----------------------------|----------------------------------------------------------------------|---------------------------|------------------------------------------------------------------|
| Measuring range             | 0~50 psu                                                             | Temperature principle     | NTC30K                                                           |
|                             | Slope reading70~130%                                                 | Measuring range           | -10~120°C(ATC)                                                   |
|                             |                                                                      | Accuracy                  | ±0.2°C                                                           |
| Accuracy                    | ±2% reading                                                          | Resolution                | 0.1°C                                                            |
| Resolution                  | 0.1 psu                                                              | Reproducibility           | 0.1°C                                                            |
| Electrode withstand voltage | Max. 100 psi                                                         | Other Specification       |                                                                  |
| Operating temperature       | 0~100°C                                                              | Link above                | 3/4" NPT                                                         |
|                             |                                                                      | Link below                | M42                                                              |
| Response time               | T90 1 second                                                         | Housing Material          | PP, acid and alkali resistance/food grade/ zero dissolution      |
|                             |                                                                      | Electrode material        | Graphite                                                         |
| Communication               | RS-485 Modbus<br>RTU Web Browser<br>direct reading<br>(192.168.1.80) | Dimension                 | ø50*L213.9mm                                                     |
|                             |                                                                      | Weight                    | ≤340kg                                                           |
|                             |                                                                      | Power                     | Auto-cleaning:12 or 24VDC(optional)<br>Non auto-cleaning:9~36VDC |
|                             |                                                                      | Power consumption         | Auto-cleaning:6.8w<br>Non auto-cleaning:0.8w                     |
| Safety certification        | CE,FCC                                                               | Ingress Protection Rating | IP68                                                             |

## [Dimension] Unit:mm

