

[Product Description]

- IoT Dissolved Oxygen Analyzer: Equipped with both RS-485 and Wi-Fi web interfaces, allowing for remote or on-site monitoring directly via smartphone. No display unit or app is required. Provides accurate and stable DO readings that can be integrated with any type of meter or software worldwide.
- Automatic Cleaning Function (Optional): Includes a built-in micro air pump. Features adjustable cleaning schedules, auto-hold of the last reading, and configurable stabilization time, significantly extending 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 Features: Notifies users of calibration and cleaning status, automatically diagnoses electrode fouling or aging, and provides proactive maintenance suggestions.



[Features]

- All-in-One Design: Built-in IoT transmission module and sensor. Ready to operate upon power-up with all functions fully integrated.
- IP68 Submersible, Corrosion-Resistant Material: Can be directly submerged in water without the need for a protective casing.
- High-Strength, Isolated Cable: Designed for direct deployment. Ensures stable signal transmission with surge protection for both power and IoT communication lines.
- Temperature Compensation: Measurement method complies with Taiwan EPA's NIEA W218.51C standard for automatic monitoring systems.
- Smart Design: Calibration parameters are stored and retained, allowing for direct on-site installation after calibration.
- Three-Point Calibration: Supports calibration using standard solutions or samples with known concentrations.
- Holds Last Reading During Calibration and Auto-Cleaning: Prevents false readings during these processes.
- Real-Time Status Display: Indicates current status including calibration, auto-cleaning, stabilization, or maintenance.
- Web and RS-485 Accessible Calibration Records: Allows review of the latest three calibration records, including date, slope, and calibration points.

[Applications] Aquaculture · Seawater · Sewage · Subterranean water River · plant nutrient solution. °

[Optional code]

DO485

— Code 1 — Code 2 — Code 3

Code 1	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, 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 : In accordance with EPA declaration method NIEA W455.52C.
The dissolved oxygen electrode method uses a selectively membrane that the dissolved oxygen passes through in the water. It is isolated from liquids, ions and other interfering substances, and the molecular oxygen through the membrane which reduced at the cathode end of the electrode. Since the current strength is proportional to the dissolved oxygen concentration in a steady state, the current value can be converted into the dissolved oxygen concentration in water.

[DO Specification]

DO Specification		Temperature Specification	
Measuring range	0~20mg/L(ppm)	Temperature principle	NTC30K
	0~200%	Measuring range	-10~120°C(ATC)
	Slope 70~130%	Accuracy	±0.2°C
Accuracy	±0.2mg/L(0~8mg/L)	Resolution	0.1°C
	±0.3mg/L(8~20mg/L)	Reproducibility	0.1°C
Resolution	0.01mg/L	Other Specification	
Electrode withstand voltage	Max. 14 psi	Link above	3/4" NPT
Reproducibility	±0.5% F.S	Link below	M42
Operating temperature	0~40°C	Housing Material	PP, acid and alkali-resistance/food grade/ zero dissolution
Water velocity	Maximum 0.3M/S	Electrode material	silver / zinc electrode
Response time	T90 120 seconds	Dimension	ø50*L213.9mm
Communication	RS-485Modbus RTU Web Browser direct reading(192.168.1.80)	Weight	≤340g
		Power	Auto-cleaning:12VDC or24 VDC(optional) Non auto-cleaning:9~36VDC
		Power consumption	Auto-cleaning:6.8w Non auto-cleaning:0.8w
Safety certification	CE 、 FCC	Ingress Protection Rating	IP68

[Dimension] : mm

