

[Product Description]

- IoT DO analyzer with RS-485 and Wi-Fi web interface, and it can monitor by remote and in-situ with mobile phone which is without meter and app.
- Automatic cleaning function (optional): Including Micro air pump, cleaning scheduling(adjustable), keeping the last reading(during auto cleaning), and stabilization time(adjustable), that is able to extend maintenance period easily.
- Smart calibration function: Switching protective cover to standard solution bottle, and it calibrates with phone webpages.
- Smart AI function: calibration/auto-cleaning notification, self-judgment of stain and electrode degree of aging..etc.
- IP68 integrated design: The DO sensor can put into the application environment such as river/reservoir/tap water/ sewage/ seawater.. etc. Accurate and durable DO value can be provided to any meter or software in the world.



[Features]

- Caps can be quickly replaced.
- Integrated design, and built-in IoT transmission and sensor.
- IP68 submerged type and corrosion resistant material which can put into water without protective sleeve.
- It can be operated by delivery of current, and all functions are built-in.
- Ultra-low power consumption, it is suitable for large-scale deployment of green energy IoTs.
- The high-strength isolated cable can be put to use directly, and the signal is stable.
- The DO sensor is equipped with temperature compensation, atmospheric pressure , and salinity compensation.
- The power and IoT communication are equipped with surge protection.
- With dual digital communication of RS-485 and Wi-Fi.
- Standard Modbus RTU and can connect to the global IoT.
- Sensing film life can be used up to 1~2 year.
- Optional auto-cleaning function, extending the maintenance cycle about 2~3 times.
- Wisdom design, storing parameter calibration, it can be installed directly on site after calibration.
- Operating with mobile web pages, it is convenient to on-site operation.
- Switching protective cover to standard solution bottle on site, it is convenient for calibration.
- During calibration and auto-cleaning, keep the last reading value to avoid misoperation, and it read the state at the same time (calibrating/auto-cleaning/stabilizing/ under maintenance).
- The latest thrice calibration records (date/slope/calibration point) can be inquired.

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

[Optional code] DO485 - Code1 - Code2

Code 1	Function	Code 2	Line /Air duct length
N	No auto-cleaning	N	3M
A	Auto-cleaning (Including air pump, 5m air pipe, nozzle)	10	10M
A24	Auto-cleaning (24VDC Including air pump, 5m air pipe, nozzle)		

[Calibration bottle code]

Name of product	Code
Calibration bottle	Bottle



[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.

■ Installation method: submerged、three way、intubation.

■ Measurement principle : In accordance with EPA declaration method NIEA W455.51C.

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	
Reproducibility	±0.5% F.S	Link above	3/4" NPT
Electrode withstand voltage	Max. 100 Psig	Link below	M42
Operating temperature	0~50°C	Housing Material	PP, acid and alkali-resistance/food grade/zero dissolution
Water velocity	Maximum 3M/S	Electrode material	silver / zinc electrode
Response time	T90 120 seconds	Dimension	ø45*L214mm
Communication	RS-485Modbus RTU Web Browser direct reading(192.168.1.80)	Weight	≤350g
		Power	Auto-cleaning:12VDC or24 VDC(optional) Non auto-cleaning:9~36VDC
		Power consumption	Auto-cleaning:1.6w Non auto-cleaning:0.8w
Safety certification	CE、FCC	Ingress Protection Rating	IP68

[Dimension] : mm

