

[Product Description]

- IoT fluoride sensor equipped with both RS-485 and Wi-Fi web interfaces, enabling remote or on-site monitoring directly via smartphone—no display unit or app required. Provides accurate and stable fluoride (F⁻) measurements, and is compatible with any global display system or software.
- Automatic Cleaning Function (Optional): Includes a built-in micro air pump. Adjustable cleaning schedule with automatic cleaning, last-value hold, and customizable stabilization time—effectively extending maintenance intervals.
- Smart calibration function via mobile webpage: Replace the standard liquid bottle with the protective cap on-site, and navigate the calibration process via mobile webpage for ultimate convenience.
- AI-Driven Smart Features: Sends notifications for calibration and auto-cleaning status. Automatically assesses electrode condition, including fouling or aging.

**[Feature]**

- All-in-One Design: Built-in IoT transmission module and sensor. Fully operational upon power-up, with all functions integrated—no external controller required.
- IP68 Submersible and Corrosion-Resistant Housing: Designed for direct immersion in water without the need for a protective casing.
- High-Strength Isolated Cable: Suitable for direct deployment, offering stable signal transmission with built-in surge isolation for both power and IoT communication lines.
- Temperature Compensation: Measurement method complies with the Taiwan EPA's regulation NIEA W218.51C for automatic monitoring systems.
- Smart Design: Calibration parameters are internally stored, enabling direct field installation after calibration.
- Three-Point Calibration: Allows calibration using standard solutions or samples with known concentrations.
- Safe Mode During Calibration and Auto-Cleaning: Holds the last measured value to prevent false alarms. Real-time status indicators include: Calibrating, Auto-Cleaning, Stabilizing, and Under Maintenance.
- Calibration History Log: View the latest three calibration records (Date / Slope / Calibration Points) via Web interface or RS-485.

[Applications] Sewage, groundwater, freshwater aquaculture, river and lake detection systems.

[F485 Optional Code]

F485

- 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, web page without APP, direct operation by mobile phone
- Data resolution: 16 bits (0.001% F.S)
- Surge protection: 8000VDC
- Protection: polarity, overload, short circuit
- Measurement principle: Use the sensing front-end material to sense the potential change of F485, convert the potential difference into concentration, and correct various compensations to provide an accurate data.
- Installation method: submersible type, three-way type, intubation type.

[F485 Specification]

F485 Specification		Temperature Specification	
Measuring range	0~1,900mg/L (Or customize a higher concentration) Slope reading 70~130%	Temperature principle	NTC30K
		Measuring range	0~50°C
		Accuracy	±0.2°C
Accuracy	±5% reading ±0.5mg/L	Resolution	0.1°C
Resolution	0.01 mg/L	Reproducibility	0.1°C
Reproducibility	±3% reading ±0.5 mg/L	Other Specification	
Working Parameters	Operating temperature: 5~50 °C Working pH: 0.0~8.5	Link above	3/4" NPT
		Link below	M42
Reaction time	T90 ≤ 120 seconds	Housing Material	Polypropylene (PP), acid and alkali resistant/food grade/zero dissolution
Communication	RS-485Modbus RTU Web Browser direct reading (192.168.1.80)	Dimension	ø50*L213.9mm
		Weight	≤340g
		Power	Auto-cleaning:12 or 24VDC(Optional) Non auto-cleaning;9 ~ 36VDC
Safety certification	CE 、 FCC	Power consumption	Auto-cleaning:6.8W Non auto-cleaning:0.8W
		Ingress Protection Rating	IP68

[Dimension] mm

