

[Product Description]

- IoT ammonium nitrogen sensor with RS-485 and Wi-Fi web interfaces: monitor from a phone, no display unit or app needed, works with any display or software. Accurate, durable NH₄-N readings plus NH₃ conversion.
- Optional auto-cleaning: built-in air pump, adjustable schedule and settling time, last reading held.
- Phone web smart calibration: swap the standard solution under the cap and follow the guided steps.
- Smart AI: calibration/cleaning status alerts and electrode fouling/aging self-diagnosis.

[Features]

- All-in-one design: built-in IoT and sensor, ready at power-up.
- IP68 submersible, corrosion-resistant; no protective sleeve.
- High-strength isolated cable; surge protection on power/IoT.
- Temperature-compensated; measurement per NIEA W218.51C.
- K⁺ interference compensation; enter site K⁺ via web or RS-485.
- NH₃ free ammonia from NH₄-N, temperature and pH (manual/PLC).
- Built-in EEPROM write protection against frequent writes.
- Stores calibration data; install on site right after.
- Three-point calibration with standards or a known sample.
- Holds the last reading during calibration and cleaning, and reports status (calibrating / cleaning / settling / maintenance).
- Latest 3 calibration records (date/slope/points) via web and RS-485.



Code 2: Quick

Code 2: Gland

[Applications] Wastewater, groundwater, aquaculture, rivers/lakes.

[NH₄ Models]

NH4485

Code 1

Code 2

Code 3



Code 1	Function	Code 2	Connector	Code 3	Cable length
N	No auto-clean	C	Quick connector	N	3 m
A	Auto-clean (12VDC pump)			C	3 m + connector
A24	Auto-clean (24VDC pump)	F	Cable gland	Value N	Length
				Value C	Length + connector

[Calibration Notes] ※Optional Sample-NH₄ for on-site sample calibration

NH₄ uses ion-selective electrode measurement, the most economical method with no reagent cost, for online monitoring. Each electrode is factory-calibrated per ISO 9001 procedures.

For more accurate readings, confirm the concentration of a site sample by colorimetry, then perform on-site sample calibration. The optional JNC service dilutes the sample 10x and 100x for a three-point calibration: low (100x), medium (10x) and high (site sample).

With K⁺ in the site water, enter the K⁺ concentration on the web page before calibrating.

Item	Model
Sample calibration	Sample-NH ₄

[Specifications]

- RS-485 Modbus RTU; web interface, no app required, operate from a phone.
- Data resolution: 16-bit (0.001% F.S).
- Surge protection: 8000VDC.
- Protection: reverse polarity, overload, short circuit.
- Principle: complies with Taiwan EPA method NIEA W456.51C; the sensing front-end responds to NH₄-N potential changes, converted to concentration with compensation.
- Installation: submersible, tee-type, insertion-type.

[NH₄ Specifications]

NH ₄ Specifications		Temperature Specifications	
Measurement Range	0~10000 mg/L (custom range) Slope reading 70~130%	Principle	NTC30K
		Range	-10~120°C, auto compensation
		Accuracy	±0.2°C
Accuracy	±5% of reading ±0.5 mg/L	Resolution	0.1°C
Resolution	0.01 mg/L	Repeatability	0.1°C
Repeatability	±3% of reading ±0.5 mg/L	Other Specifications	
Conditions	Operating temperature: 5~50 °C	Upper Thread	3/4" NPT thread
		Lower Thread	M42 thread
Response Time	T90 ≤ 120 s	Housing	PP, food grade, acid/alkali resistant
		Electrode	PVC
Communication	RS-485Modbus RTU Web browser direct read (192.168.1.80)	Dimensions	ø50*L213.9mm
		Weight	≤340 g
		Power Supply	Auto-clean: 12 or 24VDC (optional) No auto-clean: 9~36VDC
Certification	EU CE safety certification US FCC certification	Consumption	Auto-clean: 6.8 W No auto-clean: 0.8W
		IP Rating	IP68

[Dimensions] Unit: mm

