# JNC EC Sensor

# [Product Description]

- IoT EC 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 EC sensor can put into the application environment such as river/reservoir/tap water/ sewage/ seawater.. etc. Accurate and durable EC value can be provided to any meter or software in the world.



- 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 EC sensor is equipped with temperature compensation and measurement(in accordance with NIEA W218.51C).
- The power and IoT communication are equipped with surge protection.
- With dual digital communication of RS-485 and Wi-Fi.
- Standard Modbus RTU can connect to the global IoT.
- 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.
- With 3-point calibration, and the calibration point can be set.
- 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.
- Simultaneous display: EC/TDS/Temp value.

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

[Optional code] EC485 - Code1 - Code2 - Code3

Code 1	Function	Code 2	Line/ air duct length	Code 3	measuring range
N	No auto-cleaning	N	3M	L	0~20.00 mS/cm
Α	Auto-cleaning (Including air pump, nozzle)	10 1014			0. 200 00 5 /
A24	Auto-cleaning (24VDC Including air pump, nozzle)	10	10M	П	0~200.00 mS/cm

## [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.
- Measurement principle: : In accordance with EPA declaration method NIEA W204.51C, Graphite electrodes measure impedance to calculate conductivity.
- Installation method: submerged · three way · intubation.

## [EC Specification]

	EC Specification		Temperature Specification		
	L: 0~20mS / cm	L: 12800mg/L H128000mg/L	Temperature principle	NTC30K	
Measuring range	H: 0~200mS / cm		Measuring range	-10~120°C(ATC)	
	Slope:70~130%		Accuracy	±0.2°C	
Accuracy	±1% F. S	±1% F. S	Resolution	0.1°C	
$\begin{array}{c} 0.01 \text{ ms} \\ \text{Resolution} & \text{redundancy} \pm 1\% \\ \text{reading} & \end{array} \pm 0.1$		±0.1 mg/L	Reproducibility	0.1°C	
Electrode withstand voltage Max. 100 Psig		Other Specification			
Operating	0~70°C		Link above	3/4" NPT	
temperature			Link below	M42	
Response time	T90 1 second		Housing Material	PP, acid and alkali resistance/food grade/ zero dissolution	
			Electrode material	Graphite	
	RS-485Modbus RTU Web Browser direct reading(192.168.1.80)		Dimension	ø45*L214mm	
Communication			Weight	≤340kg	
Communication			Power	Auto-cleaning:12VDC or24VDC(optional) Non auto-cleaning:9~36VDC	
Safety certification	CE · FCC		Power consumption	Auto-cleaning:1.6w Non auto-cleaning:0.8w	
certification			Ingress Protection Rating IP68		

