JNC Electrical Conductivity Sensor EC485

[Product Description]

- IoT Conductivity Analyzer: Equipped with both RS-485 and Wi-Fi web interfaces, enabling remote or on-site monitoring directly via smartphone. No display unit or app is required. Delivers accurate and stable EC (Electrical Conductivity) readings, compatible with any meter or software worldwide.
- Automatic Cleaning Function (Optional): Comes with a built-in micro air pump. Features adjustable cleaning schedules, automatic holding of the last reading, and configurable stabilization time to easily extend 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: Provides notifications for calibration and cleaning status, and can automatically detect electrode fouling or aging to assist with proactive maintenance.

[Features]

- All-in-One Design: Integrates IoT transmission and sensor modules. Fully functional upon power-up—no additional components required.
- IP68 Submersible, Corrosion-Resistant Material: Designed for direct submersion in water without the need for protective casing.
- High-Strength Isolated Cable: Ready for direct deployment. Provides stable signal transmission with built-in surge protection for power and IoT communication.
- Temperature Compensation: Measurement method complies with Taiwan EPA’ s official regulation NIEA W218.51C for automatic monitoring systems.
- Smart Design: Stores calibration parameters internally. Once calibrated, the device can be directly installed on-site.
- Three-Point Calibration: Allows calibration using standard solutions or samples with known concentrations.
- Last Reading Hold During Calibration and Auto-Cleaning: Maintains the last measured value to prevent false readings or system errors.
- Real-Time Status Indication: Displays current operational mode, including calibration, auto-cleaning, stabilization, or maintenance.
- Web and RS-485 Access to Calibration Records: View the latest three calibration records, including date, slope, and calibration points.

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

[Optional Code]

EC485 – Code 1 – Code 2 – Code 3 – Code 4

Code 1	Function	Code 2	Sensing end connector	Code 3	Line/ air duct length	Code 4	Measuring range
N	No auto-cleaning	C	Quick connector	N	3M	L	0~20.00 mS/cm
				C	3 meters + quick connector		
A	Auto-cleaning (Including standard 12VDC air pump, nozzle)	F	Cable head	Value N	Line length	H	0~200.00 mS/cm
A24	Auto-cleaning (Including 24VDC air pump, nozzle)			Value C	Line length+quick connector		

Code 2: Quick connector

Code 2 :Cable head

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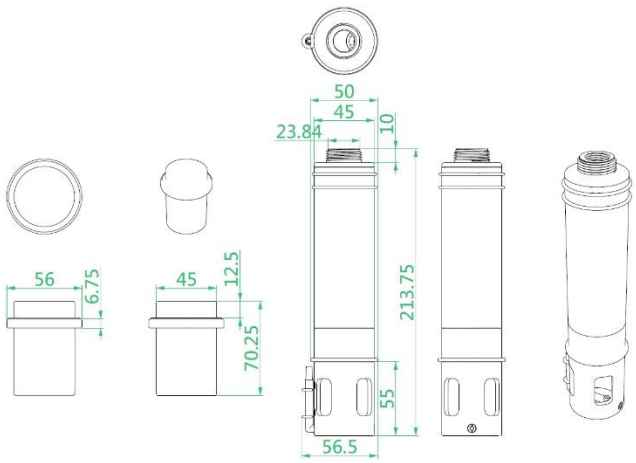
[Technical Specifications]

- 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		TDS	Temperature Specification	
Measuring range	L：0~20.00mS / cm H：0~200.00mS / cm Slope:70~130%	L:12800.0 mg/L H:128000.0 mg/L	Temperature principle	NTC30K
			Measuring range	-10~120°C(ATC)
			Accuracy	±0.2°C
Accuracy	±0.1% F.S	±0.1% F.S	Resolution	0.1°C
Resolution	0.01 ms redundancy±1% reading	±0.1 mg/L	Reproducibility	0.1°C
Electrode withstand voltage	Max. 100 psi		Other Specification	
Operating temperature	0~80 °C		Link above	3/4" NPT
			Link below	M42
Response time	T90 1 second		Housing Material	PP, acid and alkali resistance/food grade/ zero dissolution
			Electrode material	Graphite
Communication	RS-485Modbus RTU Web Browser direct reading(192.168.1.80)		Dimension	ø50*L213.9mm
			Weight	≤340kg
			Power	Auto-cleaning :12VDC or24VDC(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



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