

WATER QUALITY MONITORING / DATA SHEET

SS303-01

Industrial Residual Chlorine Transmitter

A continuous residual-chlorine transmitter for measuring hypochlorous acid and hypochlorite concentration in water. Its three-electrode, non-membrane constant-voltage sensor provides stable measurement without routine membrane or reagent replacement.

Overview

- Selectable 0-2, 0-10 and 0-20 mg/L measurement ranges.
- 0.01 mg/L resolution with a response time below 30 seconds.
- Three-electrode system designed for accuracy, stability and long service life.
- RS485, analog, Wi-Fi, 4G and LoRa output / communication options.



Measured Residual Chlorine	Ranges 0-2 / 10 / 20 mg/L	Resolution 0.01 mg/L	Supply DC 10-30 V
Key Functions • Non-membrane constant-voltage sensor; no membrane or reagent replacement. • Upper and lower NPT 3/4 threads for convenient installation. • Configurable Modbus address and baud rate on RS485 models. • Optional OLED display and three selectable measurement ranges.		Applications • Automatic chemical dosing in recirculating-water systems. • Swimming-pool chlorination control. • Drinking-water plants and distribution networks. • Hospital wastewater and environmental water monitoring.	

SYSTEM DATA

Technical Specifications

Item	Specification
Supply Voltage	DC 10-30 V; 0-10 V output requires DC 24 V
Measurement Ranges	0-2 mg/L, 0-10 mg/L or 0-20 mg/L selectable
Resolution	0.01 mg/L
Measurement Error	5% or 0.05 mg/L, whichever is greater
Repeatability Error	±0.05 mg/L
Response Time	<30 s
Transmitter Environment	-20 to +80 °C; 0-95% RH, non-condensing
Electrode Operating Temperature	0-50 °C
Pressure Resistance	0.6 MPa
Process Conditions	pH 4-9; recommended flow 30-60 L/h with flow-cell installation
Cable Length	5 m standard; 10 m, 15 m and 20 m customizable
Electrode Service Life	Approximately 1 year

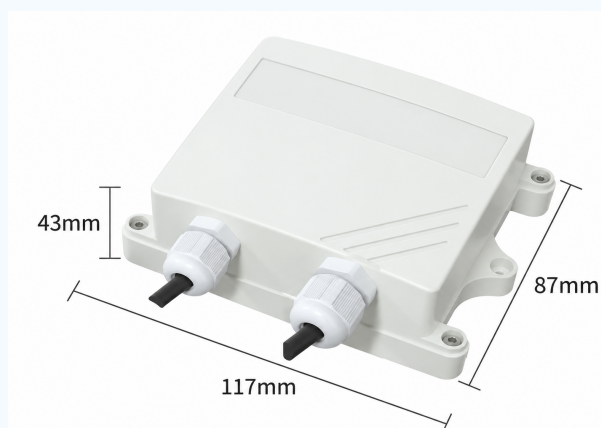
INTERFACES

Output and Communication Options

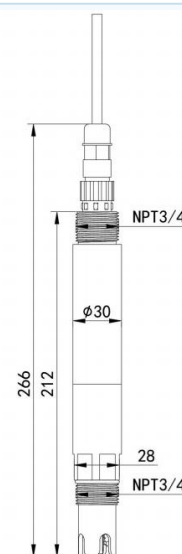
Option	Power	Description
RS485	0.3 W	Modbus-RTU; 2400 / 4800 / 9600 baud; 4800 default
4-20 mA	0.9 W	Current output; load $\leq 600 \Omega$
0-5 V / 0-10 V	0.9 W	Voltage output; output resistance $\leq 250 \Omega$; 0-10 V requires DC 24 V
4G	0.5 W	2 s acquisition; 60 s default upload; 1-65535 s configurable
Wi-Fi	0.5 W	2 s acquisition; 10 s default upload; 802.11 b/g/n
LoRa	0.5 W	Long-range, low-power spread-spectrum communication

HARDWARE

Transmitter and Electrode Dimensions



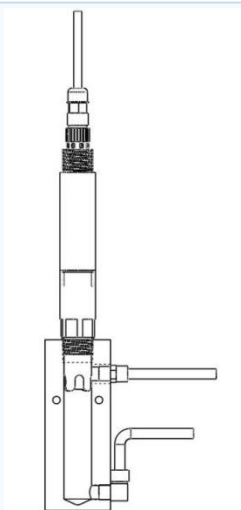
Wall-mount enclosure | 117 × 87 × 43 mm (max)



Residual chlorine electrode | 266 mm overall | Ø30 mm | NPT 3/4

INSTALLATION

Flow-Cell Installation



Flow-cell assembly

Installation Requirements

- Install the electrode tightly in the compatible flow cell.
- Ensure the measuring end is completely immersed in the sample.
- Maintain stable flow without bubbles or intermittent exposure.
- Recommended flow rate: 30-60 L/h; operating pH range: 4-9.

SELECTION

Product Configuration

Item	Available configuration
Measurement range	0-2 mg/L; 0-10 mg/L; or 0-20 mg/L
Output / communication	RS485 / Modbus-RTU; 4-20 mA; 0-5 V; 0-10 V; Wi-Fi; 4G; or LoRa
Housing	Wall-mount enclosure; 117 × 87 × 43 mm maximum
Display	Without display or optional OLED display
Electrode	Three-electrode, non-membrane residual-chlorine sensor with NPT 3/4 threads

Service note: keep the flow rate stable at 30-60 L/h, eliminate bubbles, and replace the consumable electrode after approximately one year or when response or accuracy declines.

CONTACT / SUPPORT

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