SEMARS DIGITAL

SEMARS

Smart Equipment Monitoring and Resolution System

SENSORS
DATA SHEET

SEMARS DIGITAL

India : MSR North Tower, 16th Floor, MS Ramaiah North City, Manyata, Bengaluru - 560045
UAE : FDRK5907, Compass Building, Al Hamra Ind Zone-FZ, UAE
Oman : OFC 2/16, Focus Business Center, Way56, Muscat, Oman
Netherlands : 23-Aramstraat, 1336 HR, Almere, Netherlands
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Sensors

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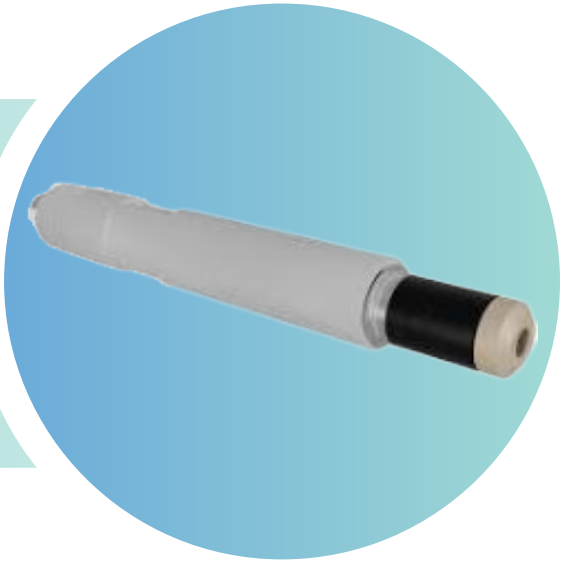
01

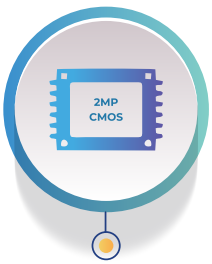
Water Quality Residual Chlorine Sensors

A precision instrument designed to measure the concentration of free and total chlorine in water. Ensures compliance with water quality standards for drinking water, industrial processes, and wastewater treatment. Using electrochemical or colorimetric sensing technology, provides accurate and reliable readings in real time. A robust, waterproof design (IP65/IP67), the device is ideal for field and laboratory applications. Optional data logging and connectivity enable easy integration with monitoring systems.



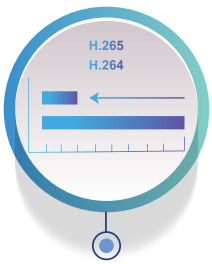
Its features and applications are as follows:

1.1 Key Features:



Measures free and total residual chlorine, chlorine dioxide, ozone

Reduces operating costs



NB-IoT connectivity with excellent penetration and coverage

LoRaWAN, Ethernet, Wi-Fi

PID control for feed-forward dosing applications

Pressure-regulated sample flow

Self-cleaning vortex system for electrode maintenance

Fast response time (<90 seconds for 90% step change)

Real-time data

Manageable via Semars Cloud

1.2 Applications:

- Municipal Water Treatment Plants
- Industrial Water Systems
- Swimming Pools & Recreational Facilities
- Food & Beverage Industry
- Hospitals & Healthcare Facilities
- Wastewater Treatment Plants
- Bottled Water Plants
- Hotels & Residential Complexes

This type of sensor is particularly suitable for industrial or commercial environments requiring precise monitoring and integration with existing systems.

1.3 Specifications

SL No.	Specification	Value
1	Measurement Range	0–20 ppm (mg/L)
2	Measurement Principle	Amperometric cell (AW400); Tri-electrode
3	Accuracy	±2% or ±0.01 ppm (unbuffered); ±2% or ±10 ppb (buffered)
4	Minimum Detection Limit	0.005 ppm
5	Response Time	90% in <90 seconds
6	Sample pH	AW400: ≤7.5 reagentless;
7	Sample Flow Rate	AW400: 60–75 L/h;
8	Connectivity	Digital transmitter; integrates with NB-IoT gateways
9	Physical details	Industrial mounting; includes cell, transmitter, reagent feeder
10	Power details	AC-powered (115V/230V) for reagent feeder assemblies

1.4 Note:

Operating and storage conditions :

- Operating Temperature: 0 °C to +50 °C
- Relative Humidity: 0–95% (non-condensing)
- Sample Pressure: 0.2 to 6 bar (regulated)
- Sample temperature: 0 °C to +45 °C
- Storage Temperature: –20 °C to +70 °C
- Humidity: Keep dry, avoid condensation
- Chemical Handling: Store reagents away from heat and temperature extremes; powders kept dry

Certifications :

- CE Certified
- RoHS Compliant
- IPV6 Packing
- ISO 9001 Manufacturing Standards