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
Contacts : info@semarsdigital.com | https://semarsdigital.com

Table Of Contents

Sensors

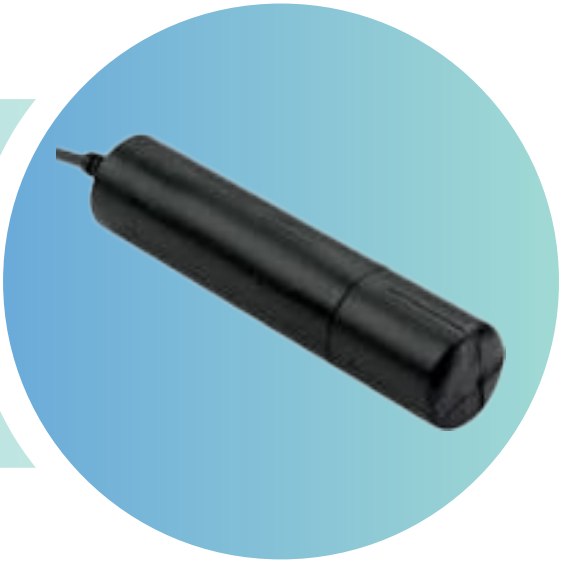
SEMARS DIGITAL

India : Ground Floor , Beech E-1 Manyata Embassy Business Park, Bangalore, India
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
Contacts : info@semarsdigital.com | https://semarsdigital.com

01

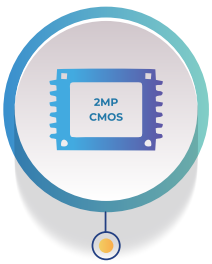
Water quality Dissolved Oxygen Sensors

A high-precision instrument designed to measure the concentration of oxygen dissolved in water, a critical parameter for assessing water quality in environmental, industrial, and aquaculture applications. Using electrochemical technology, provides accurate and stable readings with minimal maintenance. Features automatic temperature and salinity compensation, ensuring reliable performance under varying conditions.



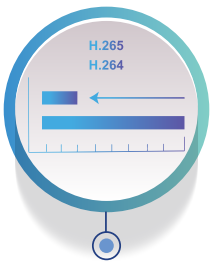
Its features and applications are as follows:

1.1 Key Features:



Retractable sensor assembly for pressurized process lines

Reduces operating costs



NB-IoT connectivity with excellent penetration and coverage

LoRaWAN, Ethernet, Wi-Fi

Variety of wiring options

Pressure-regulated sample flow

Solid-state reference chamber with KCl for durability

Fast response time

Real-time data

Manageable via Semars Cloud

1.2 Applications:

- Aquaculture & Fisheries
- Wastewater Treatment Plants
- Environmental Monitoring
- Drinking Water Treatment
- Industrial Processes
- Research & Laboratory Applications
- Food & Beverage Industry

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 Principle	ORP using platinum electrode and Ag/AgCl reference
2	Range	Typically -2000 mV to +2000 mV
3	Operating Temperature	Up to 140 °C
4	Operating Pressure	Up to 21 bar
5	Power	Powered via transmitter
6	Cooenctivity	Connects to transmitters NB-IoT via gateway
7	Physical properties	Built with a rugged, waterproof housing (IP65/IP67), the sensor is suitable for continuous field deployment or laboratory use.

1.4 Note:

Operating and storage conditions :

- Operating Temperature: –20 °C to +140 °C (–4 °F to 284 °F)
- Operating Pressure: 21 bar (300 psi)
- PH Range: 0 to 14 pH
- Redox Range: 0 to 2000 mv
- 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