

Water Quality Analysis Oxidation Reduction Potential Sensor

WS102-ORP

WS102-ORP is a smart water quality analysis Oxidation Reduction Potential Sensor, which can be used in general water treatment, sewage treatment, aquaculture, surface water monitoring, environmental protection engineering, cooling tower circulating water, beverage and food, industrial sewage discharge monitoring, etc.

At the same time built-in temperature detection, measuring range 0 ~ 60 °C. Signal output mode supports RS485(Modbus RTU) and 4~20mA.



Features & Benefits

System Parameter	
Power supply	DC10-30V(Recommend 12V)
Pressure range	0~300KPa
Shell material	PPS
Cable length	5m or customize
Protection grade	IP68
Weight	0.5kg(Without packaging)
Inspection Parameter	
Measurement Range	-2000~2000mV
Resolution	0.01mV
Accuracy	±0.01mV
Temperature range	0~60°C
Resolution	0.1°C
Accuracy	±0.3°C
Temperature compensation	Automatic
Output	RS485(Modbus RTU);4~20mA
Communication Protocol Basic Parameter	
Protocol	Modbus RTU
Data bits	8 bit



Features & Benefits

Parity bit	No
Stop bit	1
Error Detecting Code	CRC
Baud Rate	9600bps(Default)

Address Description

Name	Register Address	Data Type	Length	Description
Measurements	0x 00 01	Floating point	2	Storage location for measured value
Temperature	0x 00 03	Floating point	2	Storage location for measured temperature
Current output	0x 00 05	Floating point	2	Output current based on ORP measurements
Warning	0x 00 07	Integer	1	00: Normal 01: Measurement exceeds the upper limit 02: Measurement exceeds the lower limit 03: Temperature exceeds the upper limit 04: Temperature exceeds the lower limit
Device address	0x 00 19	Integer	1	Default Value:1;1~254
Band Rate	0x 00 1A	Integer	1	0=2400 , 1=4800 , 2=9600(Default) 3=19200 , 4=38400
Restore factory	0x 00 1B	Integer	1	

✓ Electrode wiring

- Please follow the instructions carefully, the wrong wiring will damage the product completely.
- Please carefully check all the wiring in the system and confirm that the wiring is complete right before switching on the power.
- **Note: RS48SA line and RS48SB line are strictly forbidden to contact the power supply line, otherwise the communication of the electrode will be permanently damaged.**



Electrode Outlet



Ordering Information

Model	Description
WS102-ORP	OXIDATION REDUCTION POTENTIAL SENSOR,-2000~2000MV,TEMP. MEASURING RANGE: 0~60°C,5 METER CABLE,RS485 MODBUS,10-30V POWER
	Package List
	1 x Product Unit
	1 x QIG