

CROSS SMART SENSOR

RX7 Oxidation-Reduction Potential Sensor

ELECTRO-CHEMICAL, DIGITAL TECHNOLOGY, OPTIMIZED MEASURES



FEATURES & BENEFITS

- Robust ORP & Temperature sensors.
- Digital sensor with reliable RS485 communication.
- Plug and play with GDC series terminals or computers with Delta-Phase View™ software.
- Calibration history data stored in sensor, Easy to recalibrate.
- Lightning and surge protection for worry-free power.
- Optional Self-Diagnosis function.
- Optional Analog sensor for two-wire applications.
- Rebuildable sensor using cartridge electrode. .

APPLICATIONS

- Waste water treatment**
Monitors the oxidizing or reducing power in effluent to Biological Tanks to avoid killing useful bacteria.
- Recreational Water**
Swimming pools, Waterparks, Spas, etc.
- Typical Industrial process control**
 - Cooling Tower chlorination/dechlorination
 - Cyanide destruction
 - Chromate reduction
 - Hypochlorite bleach production

PRINCIPLE OF ELECTROCHEMICAL

An Oxidation Reduction Potential (ORP) Sensor measures the activity of oxidizers and reducers (redox) in an aqueous solution. Delta-Phase incorporates easily replaceable cartridge electrodes into the RX7 Field Rebuildable sensors that widely covers ORP measurements including most municipal water and wastewater, recreational water and industrial process water and wastewater applications. The RX7 sensors are ideal for both handheld and in situ applications and offer quick time response, minimal flow dependence and low power consumption. The cartridge electrode features a "long life" reference element eliminating the need to frequently replace the electrode cartridge. The best use of an ORP measurement is in monitoring and controlling oxidation-reduction reactions, such as Chlorination and Dechlorination. RX7 sensors come with different mounting configurations including immersion, flow-cell and insertion /retractive ball-valve assembly installations.

SPECIFICATIONS	
Measuring Range	-2000 to +2000 mV
Accuracy/Resolution	±5 mV/ 0.1 mV
Temp. Compensation	Pt1000, 0 to 100°C Automatic.
Respond Time	T90 approx. 1s
Operate Pressure	0 to 100 psig (6.9Bar) @ 149°F/65°C standard. Optional HP sensor up to 300 psig (21Bar) @ 149°F/65°C (consult factory)
Operate Temp.	32 to 149 °F (0 to 65°C) standard. Other temperature tolerance available (consult factory)
Power Supply	12 to 30VDC, the maximum consumption 0.5W
Interface	RS485 Modbus RTU standard, Optional mV signal for analog sensors
Material	Glass/Platinum, PVC standard. Optional 316L, PP, PVDF (consult factory for others)
IP Rating	>IP68, submersible
Weight	1.9 pound (0.85kg), standard (consult factory for optional sensor configurations).
Dimension	Dia. 1" × 12" (OD 25.4 × 304.8 mm) standard. More size available, consult factory.
Mounting	Immersion/Insertion, Optional Insertion with Retractive ball-valve Assembly and "T" handle

ORDER CODE

RX7	Smart ORP Sensor		
-	Digital and Rebuildable	A	Analog and Rebuildable Sensor
D	Digital and Disposal Sensor	AD	Analog and Disposal Sensor
	Mounting - 3/4" NPT Back Thread for Immersion mounting of rebuildable sensors -N0 1.5" NPT Compress Fitting for rebuildable sensors flow-cell mounting -N1 1" NPT compress Fitting for rebuildable sensors inserting installation -N2 3/4" NPT Compress Fitting for disposal sensors (Immersion/Insertion Mounting) -R0 Rebuildable sensors inserting with 1-1/4" NPT Retractive Ball-valve Assembly -R1 Disposal sensor inserting with 1" NPT Retractive Ball-valve Assembly		
	Material of Housing - Standard PVC -SS 316L Stainless Steel -PP Polypropylene <i>Other housing material contact factory</i>		
	Length of Housing - Standard 12" X17 17" (Min. length for Retractive Ball-valve Assembly Mounting) X21 21" <i>Other length of housing please contact factory</i>		
	Length of Cable -C10 10 ft, approx. 3 m -C20 20 ft, approx. 6 m -C30 30 ft, approx. 9 m <i>Other length of cable please contact factory</i>		
RX7	-	-	-C30



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