

ORP/redox industrial electrodes 9310 series



9318 RD

9312 OR



- For ORP/redox meter with analog input :
Measurement in millivolts (mV)
- Combined probes (measurement + reference)
- PG13.5 thread + coaxial connector
- Electrolyte Gel - Reference Ag/AgCl
- Measuring element: Platinum or Gold

APPLICATIONS

Monitoring and control of redox potential in various industrial sectors:

- Effluent treatment management (chromic and cyanide)
- Monitoring drinking water systems
- Chlorine monitoring in swimming pools
- Monitoring dissolved oxygen in water
- Wastewater monitoring
- Measurement in deodorization towers

DESCRIPTION

Redox potential is a key measure for assessing the balance between oxidizing and reducing components in a solution.

The redox electrodes presented here are combination electrodes, incorporating a measuring electrode (platinum or gold) and an Ag/AgCl reference electrode to guarantee reliable, stable measurement.

Reference system :

The Ag/AgCl system used in all our electrodes ensures optimum stability, with a ceramic or PTFE diaphragm as required.

Combined redox electrodes :

Measuring electrodes are available in two configurations.

- Platinum (dome-shaped): For standard applications such as swimming pools, dechromation or wastewater.
- Pure gold (ring form): Specific to highly reducing environments such as decyanidation.

The metal part is in direct contact with the liquid and offers a design that facilitates cleaning while ensuring high reliability.

Installation :

To protect glass electrodes, they must be installed on suitable supports. The PG 13.5 threaded connection provides a solid, watertight hold. Several mounting options are available:

- Immersion mounting: For measurements in basins or tanks (doc 130-01, 135-01, 145-01).
- Circulation mounting: For measurements on piping (doc 140-01, 140-02, 141-01, 142-01).

Electrical connection :

To connect rH electrodes with coaxial connector, use a coaxial cable. These cables ensure low-loss signal transmission and protection against electromagnetic interference, essential for accurate rH measurements. We recommend 9060 or 9061 cables and 9054 connectors (see doc 160-01).

Care and maintenance :

To ensure reliable measurements, regular maintenance of REDOX electrodes is essential. Periodic calibration is also recommended to ensure measurement accuracy. If electrodes are not to be used for an extended period, store them in suitable conditions to optimize their life and preserve their performance.

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ORP/redox industrial
electrodes
9310 series

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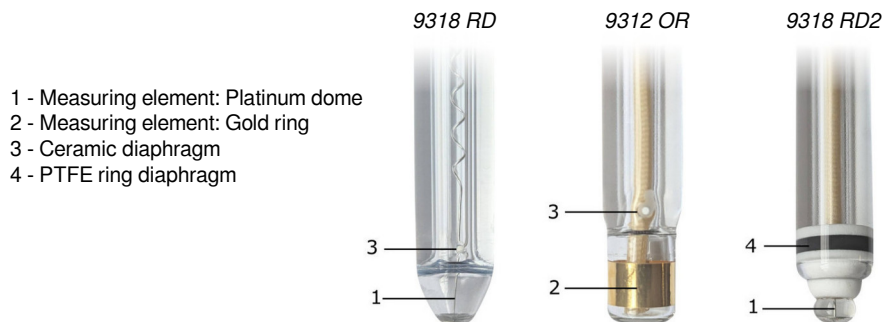
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pH

150-05/1

Code	150 117	150 120	150 121	150 122
Reference	9318 RD	9312 OR	9318 RD2	9318 Pt-HT
Measurement range (mV)*	± 2000 mV	± 1500 mV	± 1500	± 1500 mV
Temperature range	-5.....+80 °C	-5.....+70 °C	-5.....+70 °C	0...+135 °C
Process pressure	6 bar	2 bar	10 bar	13 bar
Conductivity	>100 µS/cm	>150 µS/cm	>150 µS/cm	>50 µS/cm
Measuring element	Platinum dome	Gold ring	Platinum dome	Platinum dome
Diaphragm	Ceramics (ø 1 mm)	Ceramics (ø 1 mm)	PTFE ring	PTFE ring
Length and diameter	120 mm, Ø12 mm			
Fitting	Type S8 (PG13.5 thread + coaxial connector)			
Connection system	Fixed	Rotating	Fixed	Fixed
Recommended applications				
Drinking water	●			
Swimming pool water	●			
Waste water	●			
Dechromatation	●			
Electroplating / Galvanoplasty	●			
Decyanidation		●		
Aggressive media			●	●
Environments with high pollution loads			●	●
High-temperature and high-pressure environments				●
Sugar industry (e.g. sulfide)				●

Important: When used in conjunction with the BAMOPHAR 107 pH/ORP meter, the set can measure solutions of ±1000 mV (See doc 107-01).



Lifespan

REDOX electrodes wear out over time and need to be replaced when their performance declines, which may manifest itself in longer response times or unstable measurements.

Electrode life is strongly influenced by operating conditions: temperature, chemical aggressiveness of solutions, and frequency of use. The robust design of REDOX electrodes, with materials such as platinum or gold and the absence of fragile porous junctions, contributes to their longer life than traditional models.

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pH

150-05/2