

Stationary Redox / ORP probe – Service and check

GUIDE FOR INSTALLATION, CHECK AND MAINTENANCE

INSTALLATION

Mount the probe vertically. Ensure that the probe cannot strike against tank walls or other objects during operation. Incorrect installation may reduce electrode lifetime and measurement stability. For suitable mounting solutions, ask for the information sheet on probe holders.

CHECK

Redox (ORP) electrodes cannot be calibrated. Measurement performance must therefore be verified regularly using a suitable Redox / ORP check solution with a known value. For best results, perform the check at the same temperature as the process water.

1. Clean and rinse the electrode before checking
2. Immerse the electrode in a Redox / ORP check solution with a known value
3. Allow the reading to stabilize
4. Verify that the measured value corresponds to the check solution
5. Rinse the electrode thoroughly after checking

If the electrode does not respond correctly in the check solution after cleaning, replace the electrode.

MAINTENANCE

Regular maintenance prolongs electrode lifetime and ensures stable measurements. Cleaning and inspection are typically required monthly in demanding water conditions and at least every three months under normal conditions.

Cleaning

- Clean the probe and electrode in soapy water
- Rinse thoroughly with clean water
- Remove deposits carefully using a very soft brush if necessary
- Avoid scratching or damaging the electrode surface

Electrode replacement

The Redox / ORP electrode has a limited lifetime and cannot be refilled. Replace the electrode if measurements remain unstable or incorrect after proper cleaning, or if the electrode no longer responds correctly in a check solution.

STORAGE

Always store the electrode with the protective cap in place and containing storage solution. If the liquid has been spilled, refill the cap with a few drops of 3 molar KCl solution. Proper storage prevents dehydration and extends electrode lifetime.



TROUBLESHOOTING

First, ensure that the probe is correctly installed, mounted vertically and cannot strike the tank wall or other objects.

No measurement or unstable reading

Possible causes may be that the electrode is contaminated or worn out, the cable is damaged, or there is moisture inside the probe.

Action:

- Visually inspect the probe, cable and all connections
- Clean the electrode in soapy water
- Rinse thoroughly
- Verify the measurement using a Redox / ORP check solution with a known value
- If the issue persists, replace the electrode

Local measurement OK, no system measurement

Possible cause may be a cable or connection fault between the local transmitter and the control system.

Action:

- Check wiring and connections
- Measure the mA current in the signal loop