Offshore Wind Power
Corrosion Monitoring Systems

SENSORS & SERVICES

- Multi-datalogging system
- General corrosion ER sensors
- Pitting detection ER sensors*
- Coating degradation sensors
- Atmospheric corrosion sensors
- Resistivity sensors
- Depth sensors
- 4-20 mA or mV-scaled channels for pH, DO, temperature etc.
- Cathodic protection control
- Optional structure coating performance monitoring
- Remote monitoring features
- Battery, solar or mains powered
- WebService - data analysis and organization.
- Customised data transfer
- Installation & commissioning
- Data reporting and interpretation

DESCRIPTION

MetriCorr offers a range of sensors, datalogger systems, and remote monitoring systems especially designed for the offshore wind power industry. The sensors can be positioned in the foundations on structures such as monopiles to monitor the corrosion risk in various positions relative to the tidal zone and the sea bed.

Various ER sensor types have been developed for the purpose of monitoring general corrosion, localized pitting corrosion* and coating degradation. ER sensors for atmospheric corrosion, inside or outside towers, are manufactured in steel or zinc (qualities on request).

A fit-for-purpose dedicated, compact, low-weight, multichannel device for monitoring the corrosion sensor outputs as well as transferring signals to the MetriCorr WebService (or customer server) has been designed. This device can be powered by solar power or batteries, or it can be powered by the mains system. Besides the specialized ER type sensors, a range of channels can be adapted to the system for conventional transmitters for measurement of pH, depth, dissolved oxygen (DO), temperature etc.

A complete system can be offered for corrosion and cathodic protection monitoring and control with the possibility of monitoring the structure coating condition. Such systems are customized for the individual structure and may provide cost-saving information on coating quality and cathodic protection optimization.

Our services include offshore installation (through our partnerships), supervision, commissioning of the system as well as data reporting, interpretation, consulting etc. Complete computer modelling based on individual structure information and data acquisition for a complete overview is part of the services offered. Joint industry research projects are part of our DNA and we readily collaborate in customer defined teams to ensure a maximum benefit.

Ørsted Wind Power is the World’s leading innovator and operator of wind power generation.

MetriCorr has delivered complete corrosion monitoring systems in cabinets with automated measurements and on-shore data-transmission to Ørsted’s data center. The delivery has included 21 foundations with more than 600 sensors and more than 170 datalogging units. The following sensors have been delivered:

- General Corrosion ER sensors (ERG)
- Coating ER sensors (ERC)
- Pitting ER sensors (ERP)
- AgCl Reference Cells
- Zn Reference Cells
- Conductivity sensors
- Depth sensors
- ICL dataloggers

Data transfer to Client server - or utilize our cloud-based WebService

1. On-site Monitoring
2. Hosted Data Center
3. [https://data-metricorr.com](https://data-metricorr.com)