**The MetriCorr Solution**

MetriCorr offers a complete solution for remote monitoring of corrosion and cathodic protection of buried pipelines and associated structures. A range of loggers can be configured to monitor every aspect of modern pipeline CP operation, all the way from rectifiers and anodes to the smallest coating defects (probes) under strong AC or DC interference. This allows an operator to optimize CP performance on every level and offers easy-to-use tools for documentation of regulatory compliance.

**A Powerful Portfolio**

The logger portfolio from MetriCorr is small but extremely powerful for corrosion and cathodic protection remote monitoring. The product selection matrix below illustrates the wide applicability of MetriCorr’s four logger units.

- **TRM**: Transformer rectifier monitor
- **VL100**: 1 channel voltage logger
- **ICL**: Interference corrosion logger
- **ICL-C**: Line-current and corrosion logger

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**Interference Test Station**
- ICL and ER probes for corrosion rate monitoring.
- AC/DC interference.
- Intensive mode, 1 Hz (e.g., for passing trains).
- Connected/native option.

**Potential Test Station**
- VL100 logger for potential monitoring.
- Isolating joint monitoring.
- Current (shunt) monitoring.
- Intensive mode for short term interference patterns.

**T/R Test Station**
- TRM logger for rectifier monitoring and control.
- Alarms (tamper, power, output levels).
- Remote interrupt of relay for GPS time-synchronized instant-off potential measurements.

**Casing Test Station**
- VL100 logger for potential monitoring.
- Casing potential monitoring.
- Current (shunt) monitoring.
- Intensive mode for short term interference patterns.

**Line Current Test Station**
- ICL-C logger for line current monitoring.
- ER probe for corrosion rate monitoring.
- Detection of coating damage by a change in the line current.

**Interference Test Station**
- ICL and ER probes for corrosion rate monitoring.
- Ideal for AC interference analysis and AC corrosion mitigation.
- Connected/native option.

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**Corrosion Rate as the No. 1 Parameter**

Cathodic protection is an extremely complex working area that often requires skills in several technical fields such as electrical and mechanical engineering, chemistry and physics. But in the end, the sole purpose of CP is to prevent corrosion and thereby maintain safe pipeline operation. At MetriCorr we believe the easiest way to evaluate a corrosion risk, is to measure it!

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**Field Tested, Field Proven Technologies**

Loggers and probes from MetriCorr are designed for field use and easy installation. The Slimline™ loggers from MetriCorr (VL100, ICL, ICL-C) are IP65 rated and can be implemented in a variety of test station designs, including a Big Fink station. MetriCorr offers custom-built power supply units (battery/solar) for >3 years of uninterrupted remote monitoring. The MetriCorr App is designed for easy commissioning of RMU’s in the field.

**CP*Manage Web**

Data from all loggers and manual measurements is collected and visualized in the CP*Manage Web suite. Here it can be analyzed and organized for easy documentation and reporting. Alarms can be configured for logged parameters as well.
Technical specifications

Slimline loggers

**Technical data**
- **Storage capacity**: +200 000 readings
- **Logging interval**: 10 min – 24 h, Typically 1 hour
- **Power supply options**: - Mains adapter 100–240 V AC / 12 V DC
- **Battery Module**: +3 years @ hourly logging, weekly upload +10 years @ 6 times daily
- **Battery Lifetime**: 0.07 mA
- **Dectable**: 24 µm/y Depending on thickness and corrosion

**Power Options**
- **Solution**: Batteries top-hat for Big Fink
- **Solar panel output**: Solar top-hat for Big Fink
- **Battery pack**: 0.07 mA
- **Solar & lead crystal battery**: 0.07 mA
- **Alkaline battery**: 0.07 mA
- **Solar & lead acid/crystal battery**: 0.04 mA

**Power supply options**
- **Battery top-hat for Big Fink**
- **Solar top-hat for Big Fink**
- **Battery pack (long/short)**
- **Junction Box w. solar**

**Solar panel output**: - Solar top-hat for Big Fink
- **Battery voltage**: - Solar & lead crystal battery
- **Capacity (Ah)**: 0.07 mA
- **Standby current**: 0.07 mA
- **Measurement**: 0.07 mA
- **Transmission**: 0.07 mA

**Transmission**: 24 µm/y Depending on thickness and corrosion

**Expected operating time (years)**
- **Temperature range**: Big Fink
- **Temperature range**: -20°C – +60°C
- **Temperature range**: -15°C – +45°C
- **Temperature range**: -15°C – +45°C
- **Temperature range**: -20°C – +45°C
- **Temperature range**: -40°C – +65°C

**ER probes**

**Options**
- **Element material**: Steel (preferred)
- **Element thickness**: Iron*
- **Probe sensitivity**: Zinc custom*

**Housing material**: For example, our recommended probe for AC interference monitoring (Steel, 500 µm, 1 cm², PVC, standard cable 6m) will be able to detect a corrosion rate of 25 µm/y (1 mpy) within 24 hours!

**Environment**
- **Cellular 4G with 3G and 2G fall back**
- **GSM/cellular**: Standard:
- **Solar power**: Standard:
- **Battery voltage**: 7.2 V
- **Area**: 12 V
- **Cellular 4G with 3G and 2G fall back**: 12 V
- **Solar power**: 12 V
- **Battery voltage**: 12 V
- **Area**: 12 V

**Chart** illustrates the sensitivity of different common MetriCorr probes in terms of the detectable corrosion rate over a period, or a probe’s response time at different corrosion rates.

*Highly dependent on connectivity
**Hourly measurement – weekly
*** Low temperature options are available

* Ask for availability: info@metricorr.com