

## SentinelCorr™ ER System



The SentinelCorr™ ER system is similar to other electrical resistance probe systems. However, we offer the added flexibility of having more than one sensing element (up to 8) on a probe and/or monitoring more than one probe (up to 8) simultaneously. This provides tremendous flexibility by being able to have different sized elements in use at the same time to provide a broader range of corrosion rates that are possible as well as longer probe life. In addition, elements/probes using different materials

can also be monitored together. When coupled with temperature and available chemistry monitoring features, a very powerful tool is at your disposal.

Available chemistry monitoring capability includes pH and chloride concentration measurements similar to the SentinelCorr™ CRC system. Measurement of pH and chloride is performed using solid state electrodes. By using solid state electrodes, there is no need for filling solutions or maintenance efforts thereby making the probe simple to use and more robust.

The ER transmitter is powered using a replaceable 3.6V Li-ion battery. A plug-in power option is also available. All data collected can be stored using on-board memory for eventual download using a micro-USB or WiFi. Using the WiFi solution, a dedicated network for the sensors can easily be set up (including the use of a cellular modem to ensure total isolation from existing company networks) or the transmitters can be programmed to send data using your existing network.

## Specifications

### Measurement Specifications

- Corrosion Rate Measurement Range: as low as 0.04 mpy (0.001 mm/y)
- Temperature Measurement Resolution: 0.2 °F (0.1 °C)
- Sampling Frequency: As rapid as 1/minute
- Data Memory Capacity: Approximately 10,000 data points
- Up to 8 separate channels for simultaneous ER measurements is possible

### Operating Specifications

- Probe Operating Temperature: Up to 350 °F (176 °C)
- Probe Operating Pressure: Up to 1,700 psi (11.7 MPa)
- Battery Life: Up to 5 years depending on use

### Electronics Details

- Enclosure:
- NEMA IP65 rated enclosures
  - Pelican™ enclosure options also available (Pelican™ is a registered trademark of Pelican Products [www.pelican.com](http://www.pelican.com))
  - Complete polymer encapsulation of the electronics is an available option
  - Enclosures can easily be panel or stake mounted
- Size: 7" x 5.125" x 3" (178mm x 130mm x 76mm)
- Weight with electronics and battery: 21.2 oz (600 g)
- 3.6V Li battery powered or wall power
- Data transfer via WiFi or micro usb

### Probe Details

- Probes are available in flush mount and insertion configurations
- Probe cable lengths up to 15 ft (5 m); longer cable lengths may be possible depending on the application
- Probe diameters from 1" to 1-1/4" (25.4 to 31.75 mm)
- Probe lengths from 8" to 24" (203 to 610 mm)
- Probe bodies can be made from PVC, 316 Stainless Steel, and Hastelloy 276
- When appropriate, probes include standard Swagelok ([www.Swagelok.com](http://www.Swagelok.com)) fittings compatible with most industry standard access fittings