

## WATCHDOG P2S-AC

CP Test Station Monitor & Data Logger  
Critical Bond Monitor

### APPLICATIONS

- AC corrosion current density measurement
- ON / OFF pipe-to-soil potentials
- Critical bond monitoring
- AC mitigation integrity
- CP field studies – electric rail, transmission line, pipeline crossing influence
- CP test point monitoring

### FEATURES

- Pipe-to-soil potential (2 structures)
- IR drop-free (Instant OFF) potential
- Induced AC voltage
- AC current density (displayed in  $A/m^2$ )
- DC protection current (to protected coupon)
- Bond current (bi-polar directional)
- Cellular or satellite communications
- Field replaceable Lithium battery powered – 3 to 5 year life expectancy
- Easy to use web interface
- Data logger- 2 GB SD-RAM data card



- **Verify Induced AC Voltage Safety**
- **Simplify Compliance Reporting**
- **Eliminate Travel to Remote Sites**
- **Ensure 100 mV Polarized Potential**
- **No Software Required for Watchdog Web Interface**

The Watchdog P2S-AC makes it possible to obtain critical CP field data, such as **AC corrosion current density, induced AC voltage, critical bond current, and IR-drop free (instant-OFF) potential**, that were previously difficult or costly to measure. Installed at a CP test point with a dual coupon test station or at a critical bond, the P2S-AC delivers accurate and reliable data to the *Pipeline Watchdog* website via GSM or geostationary satellite telemetry.

The P2S-AC transmits regular readings at a programmable interval, with alarms for out-of-normal conditions. Knowing native potential, ON potential, and OFF potential gives the CP professional powerful data to analyze the effectiveness of the cathodic protection system.

The P2S-AC is the perfect tool to better understand AC corrosion issues. Use it to log data during field studies, then permanently monitor the effectiveness of your AC mitigation system.

The unit can function as a CP data logger, taking and storing measurements as often as every 15 seconds. Use it to perform field studies on variable effects on your CP system such as: changing electric transmission line loads, electric rail effects, crossing pipeline interference, and variable soil conditions. The 2 GB SDRAM card can hold several months of data, which can be transmitted to the user via the GSM/GPRS cellular link or retrieved manually.

## Product Specifications

<b>Part Number</b>	GSM cellular telemetry: P2SAC-GSM Satellite telemetry: P2SAC-SAT	
<b>Operating Environment</b>	Temperature: -40°C to +85°C Humidity: 0 – 95% non-condensing Enclosure rating: NEMA-4X polycarbonate	
<b>Power</b>	Internal lithium thionyl chloride battery pack; non-rechargeable 3-5 year replacement under normal operating conditions	
<b>Size</b>	5.3" (135 mm) X 7.8" (200 mm) X 2.8" (72 mm)	
<b>Installation</b>	Mounting: Universal brackets included for pole, pipeline marker, or post mounting Connection cable: 7' (2.1m) molded, weatherproof 7-conductor cable included w/ twist-lock connector to unit Satellite Unit: Separate bracket to mount 6" (15 cm) diameter satellite terminal	
<b>Input Connections</b> (coupons and reference cells not provided)	Structure #1 Structure #2 Protected coupon Native coupon Reference cell Shunt + Shunt -	
<b>Telemetry</b>	GSM cellular telemetry: Quad-band (850/900/1800/1900 MHz) GSM/GPRS Satellite telemetry: Inmarsat IsatM2M	
<b>Data Logger</b>	2 GB SDRAM card – removable > 6 months of data at 15 second record intervals	
<b>Website Controls</b>	<u>Remote Monitoring</u> Field Configuration (bond/CP test point) Reporting frequency Alarm limits (upper & lower)	<u>Data Logging</u> Logging interval (15 sec/1min/10 min/1 hr/4 hr) Logged parameters

