

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 monitoring
- CP field studies – electric rail, transmission line, crossing pipeline influence
- CP test point monitoring

FEATURES

- Pipe-to-soil potential (2 structures)
- IR drop-free (Instant OFF) potential
- Induced AC voltage
- AC corrosion current (to protected coupon)
- DC protection current (to protected coupon)
- Native potential (using native coupon)
- Shunt current (voltage across external current shunt)
- GSM or satellite telemetry to user-friendly *Pipeline Watchdog* website
- Easy to install and deploy – everything configurable over the web – no field laptop needed
- Lithium battery powered – 3 to 5 year replacement
- 2 GB SD-RAM data storage for data logging



- **Enhance Operator Safety with Induced AC Monitoring**
- **Simplify Compliance Reporting**
- **Eliminate Travel to Remote Sites**
- **Ensure 100 mV Polarized Potential**
- **Low monthly fee**

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 installation.

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

Part Number	GSM cellular telemetry: NTG-01-0005-01 Satellite telemetry: NTG-01-0005-02	
Operating Environment	Temperature: -40°C to +85°C (satellite unit) -30°C to +70°C (GSM unit) Humidity: 0 – 100% non-condensing Enclosure rating: NEMA-4X polycarbonate	
Power	Internal lithium thionyl chloride battery pack; non-rechargeable 3-5 year replacement under normal operating conditions	
Size	5.3" (135 mm) X 7.8" (200 mm) X 2.8" (72 mm)	
Installation	Mounting: Universal brackets included for pole, pipeline marker, or post mounting Connection cable: 10' (3m) molded, weatherproof 7-conductor cable included w/ twist-lock connector to unit Satellite Unit: Separate bracket to mount 6" (15 cm) diameter satellite terminal	
Input Connections	Structure #1 Structure #2 Protected coupon Native coupon Reference cell Shunt + Shunt -	
Telemetry	GSM cellular telemetry: Quad-band (850/900/1800/1900 MHz) GSM/GPRS Satellite telemetry: Inmarsat IsatM2M	
Data Logger	2 GB SDRAM card – removable > 6 months of data at 15 second record intervals	
Website Controls	<p><u>Remote Monitoring</u></p> <p>Field Configuration (bond/CP test point) Reporting frequency Alarm limits (upper & lower)</p>	<p><u>Data Logging</u></p> <p>Logging interval (15 sec/1min/10 min/1 hr/4 hr) Logged parameters</p>
Certifications	UL/CSA 61010-1	

