

XARTU/1™ CATHODIC PROTECTION



The XARTU/1-CP™ is designed to provide pipeline operators with a complete range of functions for remote monitoring, data acquisition, and control of cathodic protection systems used on buried steel pipelines, including:

- Proper operation of pipeline rectifiers
- Providing current information to assist the operator in minimizing the potential for catastrophic pipeline failures
- Historical information for reporting purposes that can be used to aid in meeting the requirements of 49CFR Part 192 for monitoring - Pipeline Potential, Current, AC/DC Voltages, Critical Bonds
- Remote Communications via Phone, Cellular (TCP/IP), Radio or satellite
- Failure alarms, and real time callout on alarms with optional communications modules
- GPS Rectifier Interruption
- Measure up to 6 Pipe to Soil voltages
- Graphical trending of Pipe to Soil potentials to help identify pipeline protection deficiencies

The XA™ Series Cathodic Protection Monitor provides for reliable monitoring and control of CP rectifiers and test points. The XARTU/1-CP™ greatly reduces time spent doing periodic checks of rectifiers by allowing remote monitoring of rectifier station voltage, rectifier current, pipe/structure-to-soil potentials and critical bonds. Monitor status is reported using any of today's wide variety of wireless methods of communications including LEO Satellite, CDMA, GPRS/GSM Cellular, Spread Spectrum Radio or Cellular. An optional on-board modem is available as well for land-line telephone service.

The XARTU/1-CP™ can be configured to send alarms, and can also remotely interrupt CP units in a synchronized manner, eliminating the need for site visits. Control actions can be scheduled in the unit.



**EAGLE RESEARCH®
CORPORATION**

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XARTU/1-CP™ RECTIFIER MONITOR

The XARTU-CP™ provides new advantages to monitoring any standard CP Rectifier, regardless of when it was built or where it is located.

- 110/220VAC Design with Battery Back-up
- Compact, Rugged, Reliable
 - NEMA 4X Enclosure
 - Quick Release / Lockable Hasp
- Programmable Historical Data Storage
- SBC61 Processor - 9010346
 - (6) 4-20mA / 1-5VDC Inputs
 - (5) Multi-Purpose Digital IO
 - (1) Form C
 - (1) OPTO 22
- (2) RS232 Ports
- 4 Line Alphanumeric LCD Displays with Magnetic Scroll
- Full Alarm Call-Back with Optional Speech Modem for Critical Voice Interaction
- Sample and Hold Precision Rectifier Monitoring with Surge Suppression
- GPS Interruption available for synchronized interrupting and testing

Data may be presented in grid or graph form for studies and surveys. Data may also be exported for use in spreadsheets or database applications used to maintain/report CP quality.

XARTU/1-CP™ TEST POINT MONITOR

The XARTU-CP™ can also be configured to monitor test points. The XARTU-CP™ Test Point Monitor measures pipe to soil potentials and/or critical bonds as required. As test points are generally mounted far from the rectifier and AC power, the XARTU-CP™ test point monitor uses a solar PV panel and an Eagle Solar Charger Board.

- Solar powered design with battery backup
- Rugged and Reliable
 - NEMA 4X Enclosure
 - Quick Release / Lockable Hasp
- Programmable Historical Data Storage
- SBC61 Processor - 9010346
 - (6) 4-20mA / 1-5VDC Inputs
 - (5) Multi-Purpose Digital IO
 - (1) Form C
 - (1) OPTO 22
- (2) RS232 Ports
- Four-Line Alphanumeric LCD Displays with Magnetic Scroll
- Full Alarm Call-Back with Optional Speech Modem for Critical Voice Interaction
- Sample and Hold Precision Test Point and Critical Bond Monitoring with Surge Suppression



Eagle Research Corporation® provides two options for normally closed cathodic interruption relays, a mercury relay and a solid state relay.

Mercury Relay Specifications:

- Load: 100 Amps AC at 120 Volts AC
- Load: 90 Amps AC at 208 Volts AC
- Load: 90 Amps AC at 240 Volts AC
- Load: 100 Amps DC at 1-48 Volts DC
- Load: 50 Amps DC at 120 volts DC

Solid State Relay Specifications:

- Load: 90 Amps AC from 24-280 Volts AC

It is always our goal at Eagle Research® to assist our customers in the safe operation of their steel pipeline assets. A link to the Electronic Version of 49CFR part 192 can be found at the Eagle Research® Website in the Links Section - www.eagleresearchcorp.com