

# AnchorCP<sup>TM</sup>

## Key Features:

- GPS synchronized rectifier interruption accuracy to +/- 2 milliseconds
- Direct rectifier control of on / off cycles. Includes full start / end cycle scheduling
- Continuous monitoring of all system variables
- Electronically archive over 100,000 data points locally
- Trigger based event / alarm notification
- Network based communications via wireless, cellular, dial line, leased, radio, and satellite
- Enterprise ready with Internet / Ethernet host protocols
- Optically isolated I/O channels provide electrical surge protection
- Modular design can accommodate thousands of I/O channels
- Modbus Compatible

## Data Sheet

### Description

**AnchorCP** is a complete remote monitoring and control system for cathode corrosion protection systems. The system integrates precision control, automated testing, and remote monitoring into a single industrial strength package.

The **AnchorCP** System provides a Cathode Protection System with synchronized control of rectifiers. Isolated analog inputs directly control rectifier on/off cycles via relay outputs. The system provides for daily time schedules with user selected times for on/off cycle scheduling.

The system clock is synchronized with a highly accurate GPS antenna to provide rectifier interruption and control of multiple units within +/- 2 millisecond accuracy. The GPS interface allows for precise control over vast geographical locations.

Local and remote electronic data recording of system variables includes instant off and on/off cycle readings, rectifier voltage, amperage and more.

**AnchorView<sup>TM</sup>** is easy to use monitoring software that allows support personnel to view and test the system local or remotely. No programming of the system is required. Generates Excel® "c.s.v." data and trend files for flexible report generation.

ModbusTCP and Modbus RTU protocol support provides ease of integration to any SCADA System.



Status and alarm notification can be programmed by the user to generate a message for events such as power loss, structure-to-soil potential out of range, current out of range, and more. Email, fax, and alphanumeric pager notification is available.

Network and serial based communications options provide simple enterprise integration. Wireless communications options include cell, radio, and satellite. Dial and leased line connections are supported.

Electrically isolated I/O channels provide the capability to read and control any analog, digital, and serial signals. Industrial NEMA standard enclosures are available to meet the toughest environmental conditions. An optional 19" rack mount unit with visible status/alarm annunciation is also available.

The cathode protection open system design results in a cost-effective solution while offering the user the option of customizing the system.

Performance Software Associates, Inc.  
2305 E. Arapahoe Rd., Suite 153  
Littleton, Colorado 80122

Tel: 303-797-3385 800-530-1153 Fax: 303-797-3217

[www.performancesw.com](http://www.performancesw.com)

# Remote Monitoring and Control System for Cathode Protection

## Technical Specifications

### GENERAL SPECIFICATIONS

The standard configuration has been designed to operate two complete charging rectifier systems. The modular I/O system design allows for additional expansion if required.

Base Unit: 10 Analog Input Channels  
4 Digital Relay Outputs  
Ethernet and serial host port  
GPS Unit: GPS Smart Antenna, GPS Interface  
Module and Cable, Lighting Protector  
(Options)  
Enclosures: Din Rail, Sub-Panel, 3U 19" Rack Mount, or NEMA 4X, Battery Backup, Heater / Thermostat, AC Power Sense  
Cellular Modem: Cellular Phone, Data Cable, and Antenna.  
Modem: Phone Line Modem

### COMMUNICATION SPECIFICATIONS

Protocols: Modbus/TCP and Modbus RTU/ASCII  
Ethernet Port: 10/100 Mbps Fast Ethernet (IEEE – 802.3 10Base-T and 100Base-TX) using Cat5 cable with RJ-45 connector.  
Serial Port: RS-232 (PPP) baud rate is user selectable from 2400-115,200bd. Expandable up to 16 RS-232/485 ports.  
Modem: V.34 (Std. Hayes "AT" compatible )  
Cell - Modem: Digital Cellular Phone  
Driver Toolkit: Communicate with custom Visual Basic, Visual C++, Java, and Linux applications.

### PHYSICAL SPECIFICATIONS

Dimensions: 12"H x 12"W x 6"D  
3U 19" Rack Mount

### ELECTRICAL SPECIFICATIONS

Power Supply: 104-132VAC, 47-63hz  
Battery Backup: 24hr, 4 Amp-hr  
Memory: 16Mb RAM, 8Mb Flash



### ENVIRONMENTAL SPECIFICATIONS

Operating Temp: -40 to 70 degrees C  
Storage Temp: -40 to 85 degrees C  
Humidity: 0-95%, non-condensing

### I/O CHANNEL SPECIFICATIONS

Analog Inputs: Voltage Inputs: +/- 150mV DC  
+/- 10V DC  
0-250V DC  
0-250V RMS AC  
Current Inputs: +/- 20ma  
0-10 Arms AC/DC  
Accuracy: 0.06% error DC  
0.2% error AC  
Optical Isolation: 4000V  
Max Volts In: Common mode up to 500V  
Impedance: 1Mohm 0-250V  
100Mohm mV  
Digital Outputs: 5-60VDC .75amp  
(Relay Out) 0-130V AC/DC  
Additional I/O available:  
Digital Inputs: 90-280VAC, 2.5-32VDC, Dry Contact  
Analog Outputs: Current 4-20ma, +/- 10VDC, 5-60VDC  
Serial Interfaces: RS-232 or RS-485

## Ordering Information:

Model		Description		
CPR-1		Base Controller w/ I/O interfaces		
	<b>Code</b> <b>Enclosure</b>			
	0	Without Enclosure (Sub-Panel Mounted)		
	1	Without Enclosure (Din Rail Mounting)		
	2	With NEMA 4X Enclosure		
	3	3U19" Rack Mount Enclosure w/ LED Alarm Panel		
		<b>Code</b>	<b>Communications</b>	
		0	Standard Modem	
		1	Cellular Modem	
		2	No Modem	
		3	Radio Modem	
CPR-1	2	1		

© 2001-5 Performance Software Associates, Inc. *AnchorPLC, AnchorPAW, AnchorCP, AnchorView, AnchorFLOW, AnchorFLOWConfig and Anchor real-time software* are trademarks of Performance Software Associates, Inc. Other trademarks are properties of their respective companies. Hardware featured is manufactured by Opto 22.

Performance Software Associates, Inc.  
2305 E. Arapahoe Rd., Suite 153  
Littleton, Colorado 80122  
Tel: 303-797-3385 800-530-1153 Fax: 303-797-3217  
www.performancesw.com