

CPC10A

CATHODIC PROTECTION CONTROLLERS

Tideland Signals (Tideland) CPC10A is part of the new generation of CPCs (Cathodic Protection Controllers), featuring microprocessor control, three programmable alarm/function relays, built-in interrupt timer, and optional RS232 port with data logging.

The two-line alphanumeric LCD displays the operating parameters of the unit by default: the output voltage set-point and actual, output current set-point and actual and half-cell (reference electrode) voltage set point and actual. Active alarms are indicated by using the keypad and digital potentiometer; it is also used to set up other parameters, such as low current and high current alarms, auxiliary input mode and the interrupt timer.

The CPC10A controller is available housed in painted steel, stainless steel, GRP enclosures, Exd flameproof enclosures, or can be supplied as a PCB or mounting plate assembly. The controller includes GDT and MOV protection against lightning and other induced surges.

OPERATION

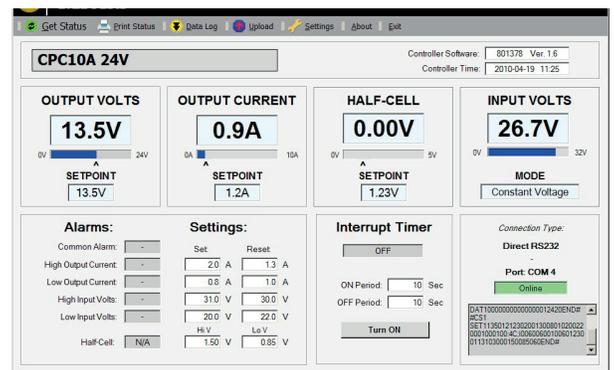
The CPC10A is capable of operating with any suitable DC power source. High speed PWM (pulse-width-modulated) switching technology is used to obtain high conversion efficiency. The CPC10A can operate in one of three modes: constant voltage, constant current and half-cell voltage control with automatic changeover of control mode. The half-cell input can be sampled every 60 seconds (adjustable) with the input reverting to high impedance between sampling to prevent loading of the half-cell.

COMMUNICATIONS AND DATA LOGGING

The CPC10A can be supplied with the RS232 port option which includes data logging. When connected to a PC or laptop, all main parameters and the present status can be viewed. The main set points and relay settings can be uploaded, and over 10,000 timed log events downloaded. The logging period can be set to 15, 30 or 60 minute intervals. The addition of a GSM or PSTN modem allows full remote access and control.

(Please note: The current communications software runs under Microsoft® Excel® versions 2000-2003.)

Typical PC Display



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Technical Details

Input Voltage Range	12V System: 10V to 16V ; 24/48V Systems: 20V to 64V Positive Common Only	
Max. Output Current	10A (Adjustable in 0.1A steps)	
Max. Output Voltage	12/24/48V or Input Voltage (Adjustable in 0.1V steps)	
Data Log Capacity	Timed events: 10,208 max. Alarm events: 2,048 max.	
Programmable Relay Functions	Low Input Volts Low Output Current High Output Current Common Alarm	System Normal System (Output) Disabled Auxiliary Input Active
Interrupt Timer Settings	On: 1 to 9,999 seconds Off: 1 to 9,999 seconds	
Operating Temperature Range	-10° C to 58° C	
Enclosure Rating	Painted Steel and Stainless Steel: IP66 GRP: IP65	
Enclosure Dimensions	Steel: 300 x 300 x 150mm GRP: 430 X 330 X 200MM (H x W x D)	

NOTE: Specifications are subject to change.



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