

CPC25A / CPC50A

CATHODIC PROTECTION CONTROLLERS

Tideland Signals (Tideland) CPC25A and CPC50A are part of the new generation of CPCs (Cathodic Protection Controllers), which feature microprocessor control, three programmable alarm/function relays, built-in interrupt timer, and an RS232 port with data logging as standard.

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 and, 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 CPC controllers are available housed in painted steel, stainless steel, GRP enclosures, or Exd flameproof enclosures, or can be supplied as PCB or mounting plate assemblies for customer final assembly. The controllers include GDT, MOV and Zener diode protection against lightning and other induced surges.

OPERATION

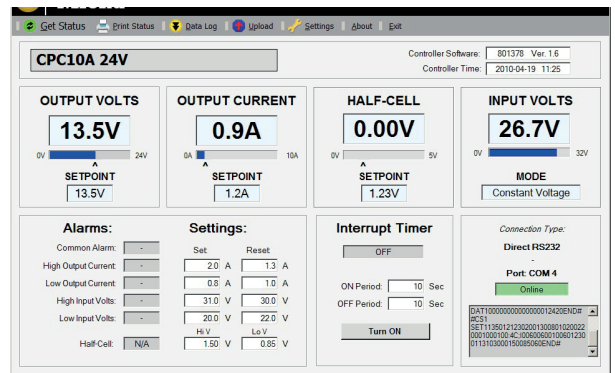
The CPC range is capable of operating with any suitable DC power source. High speed PW (Pulse-Width-Modulated) switching technology is used to obtain high conversion efficiency. The controllers can operate in one of three modes: constant voltage, constant current and half-cell voltage control with automatic 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 CPC25A and CPC50A are supplied with an RS232 port 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 and the addition of a GSM or PSTN modem allows full remote access and control.

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	25A or 50A (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	System Normal/Common Alarm 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 25A: 610 x 406 x 205mm GRP 25A: 645 x 435 x 250mm Steel 50A: 610 x 610 x 205mm GRP 50A: 645 X 435 X 250mm	

NOTE: Specifications are subject to change.



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