

As standard, the **CPC10A** is supplied with USB and RS232 communication ports, with USB/RS485 as an option. Datalogging, three user-programmable alarm/function relays plus a built-in interrupt timer are also standard.

As an option, three loop-powered 4-20mA transducers can be included, each of which is user programmable to provide isolated signals for Output Voltage, Output Current, Input Voltage and Half-Cell Voltage.

The controller is available housed in painted steel, stainless steel or GRP 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.

By default, the two-line alphanumeric LCD displays the operating parameters of the unit: 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 by using the keypad and rotary control knob, it is possible to set up other parameters, such as low current and high current alarms, auxiliary input mode and the interrupt timer.

Operation:

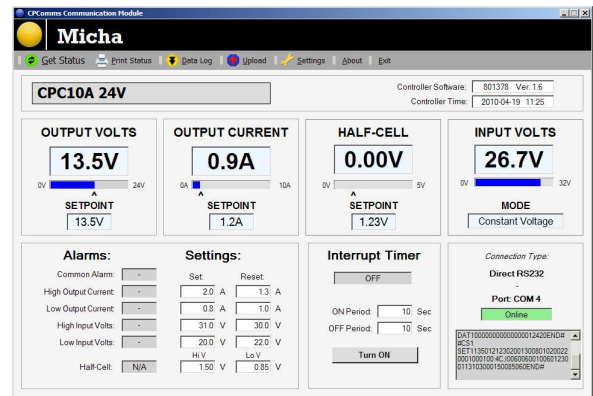
The CPC10A is capable of operating with any suitable DC power source. High speed pulse-width-modulated (PWM) switching technology is used to obtain high efficiency conversion. The CPC10A can operate in one of three modes: constant voltage, constant current and half-cell voltage control, with automatic 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. **Note:** These units can not be powered from a DC-DC isolating module due to the high current switching peaks.

Communications and Data Logging:

The CPC10A can be accessed either through the USB port when connected to a PC or laptop, or via the RS232/485 port. 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.

Check the Micha website for available communication software.



Main Specifications:

| | |
|-------------------------------|--|
| Input Voltage Range: | 12V System: 10V to 16V : 24V Systems: 20V to 32V Positive Common Only |
| Output Current: | 0 to 10A (Adjustable in 0.1A steps) |
| Output Voltage: | 0V to VIN-0.5V (Adjustable in 0.1V steps) |
| Data Log Capacity: | Timed events: 10,208 max. Alarm events: 2,048 max. |
| Programmable Relay Functions: | Low Input Volts System Normal Low Output Current System (Output) Disabled High Output Current Auxiliary Input Active Common Alarm |
| Interrupt Timer settings: | On: 1 to 9,999 seconds Off: 1 to 9,999 seconds |
| 4-20mA Transducers | Loop voltage: 10VDC to 24VDC, maximum burden at 24V approx.. 560R |
| Operating Temperature range: | -10°C to +58°C |

Specification liable to change.

Enclosure, mounting plate and kit options:

The CPC10A can be supplied as a pcb assembly with fitting kit for fixing onto a customer's own mounting plate which should be suitably machined as it acts to dissipate heat from the switching transistors. Details available on request.

Supplied in Steel Mounting Plate 250(H) x 250(W) or 250(H) x 350(W)

| <u>Description</u> | <u>250 x 250 Part Number:</u> | <u>250 x 350 Part Number:</u> |
|----------------------------------|-------------------------------|-------------------------------|
| CPC10A 12V RS232 | 102 712 | 102 713 |
| CPC10A 12V RS485 | 102 722 | 102 723 |
| CPC10A 24V RS232 | 102 812 | 102 813 |
| CPC10A 24V RS485 | 102 822 | 102 823 |
| CPC10A 12V RS232 with 3 x 4-20mA | <i>not available</i> | 102 718 |
| CPC10A 12V RS485 with 3 x 4-20mA | <i>not available</i> | 102 728 |
| CPC10A 24V RS232 with 3 x 4-20mA | <i>not available</i> | 102 818 |
| CPC10A 24V RS485 with 3 x 4-20mA | <i>not available</i> | 102 828 |

Supplied in Painted Steel Enclosure 300(H) x 300(W) x 150(D) or 300(H) x 400(W) x 150(D) incl. cable glands:

| <u>Description</u> | <u>300 x 300 Part Number:</u> | <u>300 x 400 Part Number:</u> |
|----------------------------------|-------------------------------|-------------------------------|
| CPC10A 12V RS232 | 102 714 | 102 715 |
| CPC10A 12V RS485 | 102 724 | 102 725 |
| CPC10A 24V RS232 | 102 814 | 102 815 |
| CPC10A 24V RS485 | 102 824 | 102 825 |
| CPC10A 12V RS232 with 3 x 4-20mA | <i>not available</i> | 102 719 |
| CPC10A 12V RS485 with 3 x 4-20mA | <i>not available</i> | 102 729 |
| CPC10A 24V RS232 with 3 x 4-20mA | <i>not available</i> | 102 819 |
| CPC10A 24V RS485 with 3 x 4-20mA | <i>not available</i> | 102 829 |

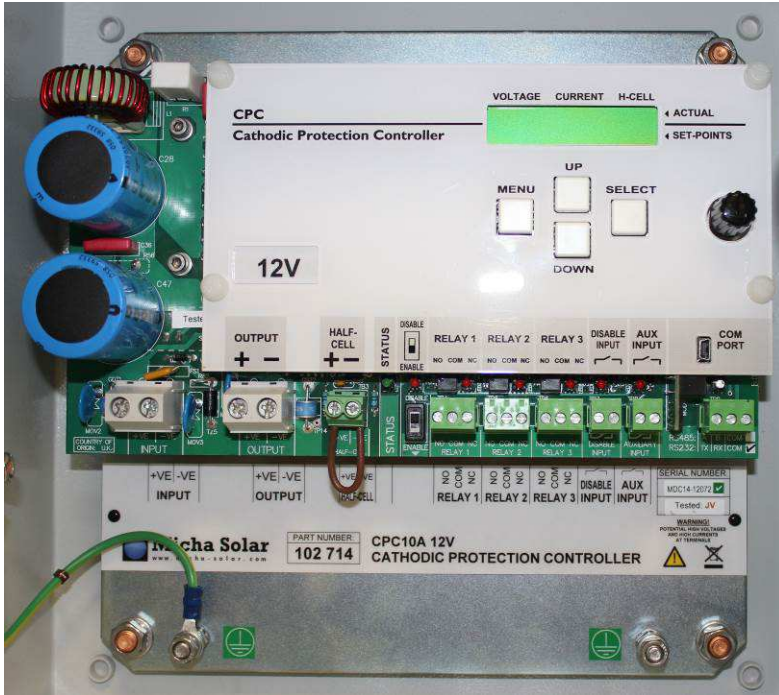
Supplied in Painted Steel Enclosure 500(H) x 400(W) x 150(D) or 530(H) x 430(W) x 200(D) GRP enclosure. All terminals brought out to DIN-rail terminals with MCBs on input and output, polyamide cable glands:

| <u>Description</u> | <u>Painted Steel. Part Number:</u> | <u>GRP Part Number:</u> |
|----------------------------------|------------------------------------|-------------------------|
| CPC10A 12V RS232 | 102 716 | 102 717 |
| CPC10A 12V RS232 with 3 x 4-20mA | 102 720 | 102 721 |
| CPC10A 12V RS485 | 102 726 | 102 727 |
| CPC10A 12V RS485 with 3 x 4-20mA | 102 730 | 102 731 |
| CPC10A 24V RS232 | 102 816 | 102 817 |
| CPC10A 24V RS232 with 3 x 4-20mA | 102 820 | 102 821 |
| CPC10A 24V RS485 | 102 826 | 102 827 |
| CPC10A 24V RS485 with 3 x 4-20mA | 102 830 | 102 831 |

Also available in Stainless Steel 304 or 316L and other sizes to order.

Terminal Cable Sizes:

| <u>Description</u> | <u>PCB Assembly Terminal</u> | <u>DIN-rail Terminal</u> |
|----------------------|------------------------------|--------------------------|
| Power In / Power Out | 10.0mm ² max | M8 stud |
| Half-Cell | 4.0mm ² max | 6.0mm ² max |
| All other terminals | 2.5mm ² max | 2.5mm ² max |



CPC10A on 250 x 250 Mounting Plate



CPC10A in 500 x 400 Steel Enclosure

Specification liable to change.