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CONTACT AND PROXIMITY CP

PROBE DIGITAL INTERFACE

	NAME	DATE	DOCUMENT NO 006	REV
APPROVED	M.B	02/07/2015		6
CHECKED	G.M		**FILENAME**	**PAGE**
DRAWN	M.B	29/04/2015		1 OF 6

REVISION HISTORY

REV	REASON FOR REVISION	DATE	CHECKED	APPROVED
6	Version 2 CP Bottle	02/07/15	MB	GM
5	New Software	29/04/15	AV	GM
4	Software instruction updated	22/05/14	MB	GM
3	Updated manual as bottle spec has been updated and changed	25/02/11	MB	GM
2	Added specifications for INPUT ISOLATION and INPUT IMPEDANCE and SAMPLING RATE. ACCURACY was ±0.05% and ZERO DRIFT was ±0.3µV	26/03/10	DSA	GM
1	ISSUED FOR COMMENT	25/03/10	DSA	GM

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1.0 INTRODUCTION

The CP remote digital interface was designed to work with a Buckley UCP1B Proximity Probe and UCP1A Contact Probe. The heart of the ROV Digital Interface takes the CP input signal and connects it to an optically isolated microprocessor controlled high resolution 16 bit sigma delta A/D converter. The converter encodes the analog signal as a serial digital voltage reading. When the terminal software is running the user sets the update rate and the serial digital voltage reading is displayed. Data can also be time stamped and logged to a file.

1.1. SPECIFICATION

PARAMETER	VALUE
POWER	**12 – 24VDC @1.2W**
ANALOG INPUT RANGE	**±5.000V**
ANALOG INPUT IMPEDANCE	**20MΩ**
ANALOG INPUT ISOLATION	**OPTO-ISOLATED 3000V_{DC}**
ZERO DRIFT	**±6µV/°C**
RESOLUTION	**16-bit (0.2mV)**
ACCURACY	**±0.1%**
SAMPLING RATE	**10Hz**
SERIAL DIGITAL OUTPUT	**RS232 (OPTIONAL RS485)**
DEPTH RATING	**1000m (3000m OPTIONAL)**
SUBSEA HOUSING	**316L SS 110mm DIAMETER X 178mm HIGH**

1.2. PROXIMITY CP INTERFACE

IL-4-MP CONNECTOR PIN	DESCRIPTION
1	**White wire of Probe**
2	**Linked to 4**
3	**N/C**
4	**Linked to 2,Connected to chassis of bottle**

1.3. CONTACT CP INTERFACE

IL-4-MP CONNECTOR PIN	DESCRIPTION
1	**White wire of probe**
2	**Black wire of probe**
3	**N/C**
4	**N/C**

1.4. DIGITAL INTERFACE

RS232 PARAMETERS	VALUE
BIT RATE	**9600**
DATA	**8**
PARITY	**N**
STOP BIT	**1**

5501-1508-0004Z Burton Part Number

BURTON 8 PIN CONNECTOR	DESCRIPTION
1	**0V**
2	**RS232 RX**
3	**RS232 TX**
4	**N/C**
5	**DATA COMMON**
6	**24v**
7	**RS485+**
8	**RS485-**

1.5 CHANGING COMMUNICATION PROTOCOL

The Version 1unit is set up to use RS232 as the default comms. To change, follow these instructions. Remove screws from top of bottle and carefully remove bulkhead. Disconnect the green plug from the rs232-rs485 convertor (see Fig1). Comms are now available in RS485 format on pins 7 & 8.

With the new Version 2 design, there is no need to open up the bottle. Just connect up to the desired communication protocol using the supplied Mini burton pigtail.

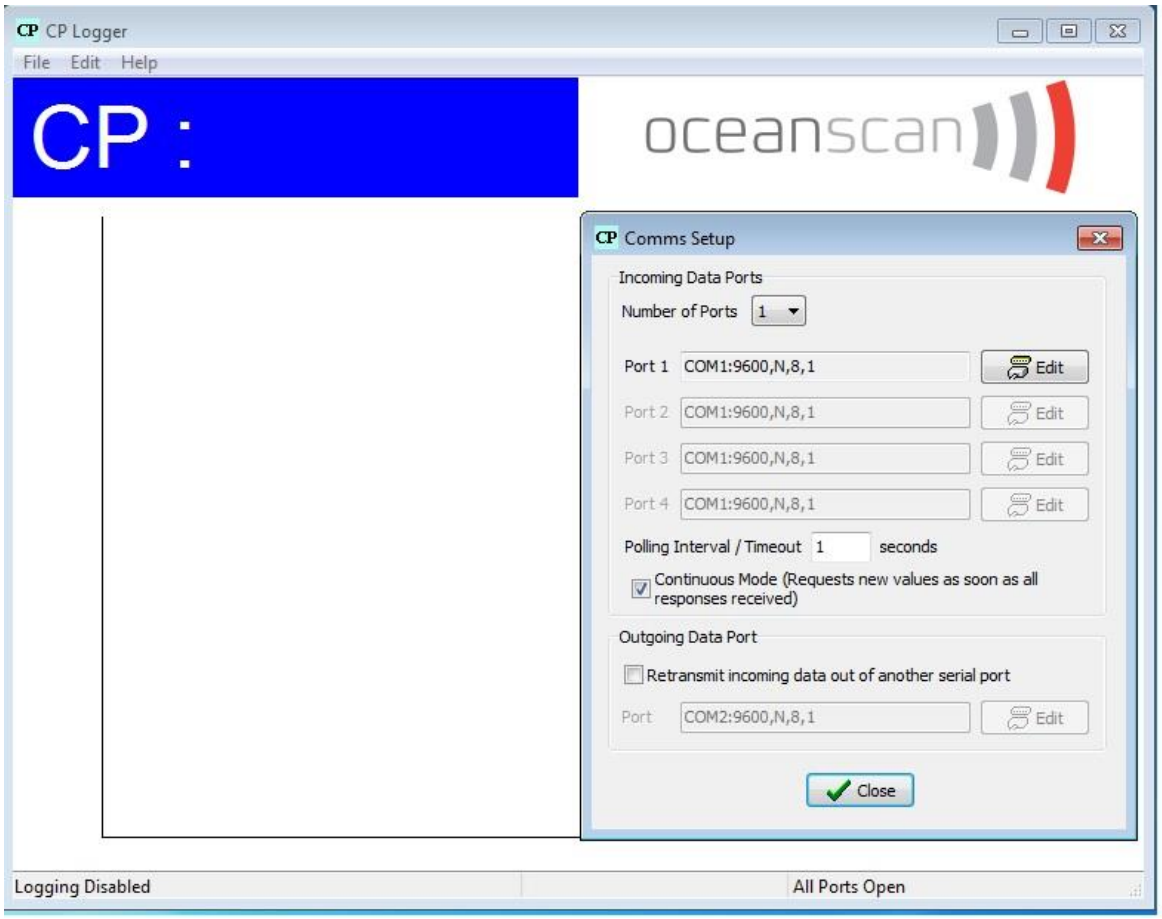
Fig1

2.0 SOFTWARE

Install the software provided, by clicking on the setup file. Once installed, run “CP Logger” which will open up a basic display program.

From within the window, configure the Comm Port by selecting the Edit Tab. You now have the option of running up to 4 CP Bottles via Number of Ports option. Select Polling Interval or tick Continuous Mode. A new feature added is output data. This is ideal when using a video overlay. Once setup is complete close window. A voltage reading will now be displayed in the top of the display window as CP1 to 4.

All data can be logged to a text file in a user specified location with time and date, via File logging.



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