MODEL 803 ROV Current Meter

The Model 803 ROV Current Meter is a unique instrument, providing ROV pilots with relative water velocity data in real time. It may be fitted to ROVs to provide actual through the water speeds, or fitted to Tether Management Systems to give a measurement of local flow conditions. The selection of output options make interfacing easy, and data may be displayed using the software supplied. Available in a 3000m titanium housing, the Model 803 is an extremely durable, reliable method of measuring current speeds in a wide variety of underwater vehicle applications.

Description

This instrument is the result of combining Valeport's proven current sensing technology with the knowledge and experience of some of the UK's leading ROV manufacturers and operators. The concept is simple - the Model 803 consists of a Valeport 2 axis electromagnetic flow sensor, with processing electronics capable of giving a variety of output formats for easy interface to almost any system.

The sensor should be mounted in clear flow on the ROV or TMS. When power is applied to the sensor, it measures the water velocity in 2 axes across the sensor surface. This data is updated at 1 second intervals, to provide X and Y axis flow information: the X axis is flow across the vehicle, and the Y axis is flow into the vehicle. This data can either be taken into a separate logging package, or displayed and logged to PC using the ROVLog Windows software provided.

As standard the Model 803 is supplied as a complete self-contained instrument, but can optionally be configured with separate sensor and electronics packages, or even as an OEM system. The Model 803 will appeal both to operators who wish to improve their existing vehicles, and to manufacturers who want to offer it as an additional parameter in the sensor package.

Physical

Sensor:	11.5cm discus EM sensor, made from polyurethane with titanium mounting.
Housing:	Titanium for 3000m depth rating. (4000m optional)
Dimensions:	76mmØ x 350mm length (titanium)
Weight:	Titanium 3.5kg (in water).
Connector:	8 way Subconn BH8M.

Performance

Units:	Knots standard, option: m/s.
Range:	± 10kts (± 5m/s).
Accuracy :	± (0.02kts (0.01m/s) + 1% reading).
Resolution:	0.01kts (0.001m/s).

Output Formats

Default settings are applied for update rate and output format as standard. Changes can be made to these settings via a Terminal program

Digital:	RS232 or RS485 (internally set). 19200 baud (default), 8 data bits, 1 stop bit, no parity bits.	
String format:	Kts:	sxx.xx\<tab>syy.yy\<cr>\<lf>
	M/s:	sx.xxx\<tab>sy.yyy\<cr>\<lf>
	Where:	s= sign, + or -
		xx.xx or x.xxx = speed on X axis
		yy.yy or y.yyy = speed on Y axis
Analogue:	-5 to +5v for each channel (0-5v or 0-10v (optional) also available).	
Update rate:	1Hz default.	
Power:	7 - 29vDC, 2W nominal.	

Software

System supplied with ROVLog Windows based PC software, for display of data from the instrument. ROVLog is license free.

Shipping

Size:	52 x 46 x 23cm
Weight:	11kg

Ordering

0803002	Model 803 ROV Current Meter in 3000m titanium housing. Supplied with pigtail / setup lead, USB adaptor, operating manual and transit case
0803012	Model 803 ROV Current Meter in 4000m titanium housing. Supplied with pigtail / setup lead, USB adaptor, operating manual and transit case
0803EA2	RS485 Communications adaptor for PC
Note:	Other configurations are available to include remote sensor from electronics and analogue output options. Please consult factory.