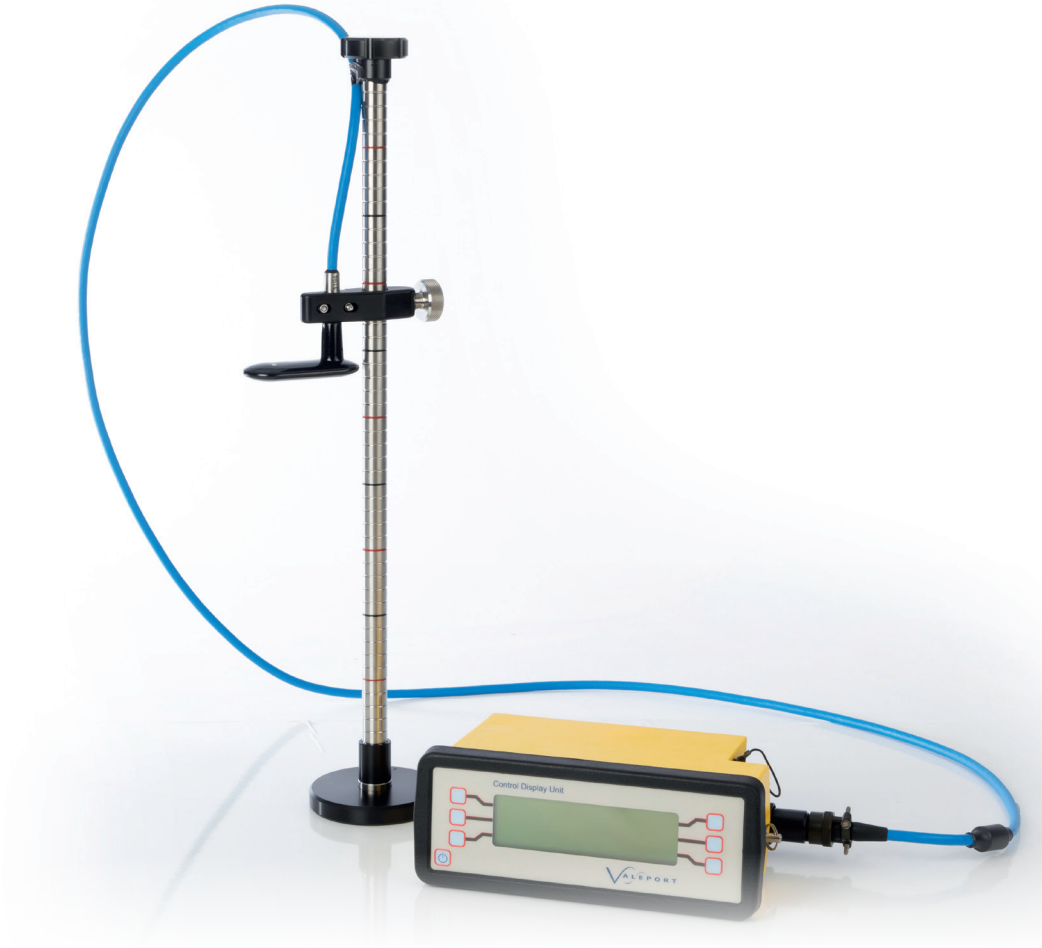
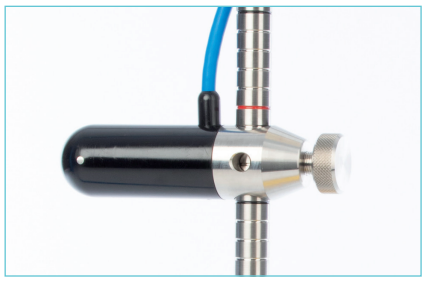




DATA SHEET

Model 801 - EM Flow Meter

The Model 801 Electromagnetic Flow Meters measure the speed of water in Open Channel environments with exceptional accuracy. Two sensor types are available, to suit different application requirements, but both offer excellent durability, reliable, accurate data and are suitable for use in all water based environments.

Product Details

CURRENT

CDU EXPRESS SOFTWARE

Valeport Limited
St. Peter's Quay, Totnes,
Devon TQ9 5EW United Kingdom

Telephone: +44 (0) 1803 869292
Email: sales@valeport.co.uk
www.valeport.co.uk

VALEPORT

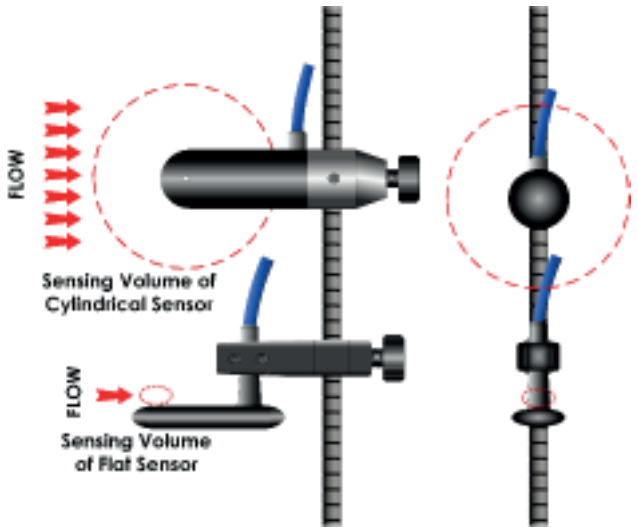
Specifications

Model 801 - Cylindrical Type

Range	-5m/s - +5m/s
Accuracy	±0.5% of reading plus 5mm/s
Zero Drift	<5mm/s
Sensing Volume	Sphere of approx. 12cm around sensor
Minimum Depth	15cm

Model 801 - Flat Type

Range	-5m/s - +5m/s
Accuracy	±0.5% of reading plus 5mm/s
Zero Drift	<5mm/s
Sensing Volume	Cylinder of approx. 20mm Ø x 10mm high
Minimum Depth	5cm



What's the Difference?

The smaller sampling volume of the flat sensor makes it very much more suitable for shallow flows, or measurements in confined spaces. However, it is also very much more sensitive to turbulent flows, which may manifest as apparently noisy real time readings. This effect can be minimised by using a long (>30secs) average period. The larger sampling volume of the cylindrical sensor effectively eliminates the turbulence noise, but also means that a greater depth of water is required for measurements.

Data Acquisition

The Model 801 Flow Meters are supplied with a dedicated Control Display Unit that both drives the sensor and provides data display of the measured water velocity.

Data is updated at 1Hz, and may be averaged over any number of seconds from 1 to 600. The display will show real time speed data at a resolution of 1mm/s, as well as the result of the data average, and a Standard Deviation figure to give added data confidence. A solid state memory records all results (up to 999 averaged readings), and the data may be downloaded to PC using the RS232 interface lead supplied.

Calibration

Both instruments are calibrated at Valeport's own premises up to speeds of 1m/s. Higher speed measurements are based on linear extrapolation. Specific high speed calibrations can be arranged at a third party facility on request

Control Display Unit

Size	244mm x 163mm x 94mm, 2kg
Environmental	Sealed to IP67
Power	8x alkaline C cells, up to 37 hrs operation
Operating Temp	-5°C - +50°C (display unit) -5°C - + 40°C (sensor)

Calibration

Both instruments are available for use as hand held "Wading Sets" only, with the operator standing in the channel, holding the instrument in position. The system is supplied with 1.5m wading rod (3x 0.5m sections), graduated in cm, and a 3m cable from instrument to display unit.

Alternatively, a "top-setting" wading rod system is available, which allows the vertical position of the instrument to be set without removing the wading rods from the water.

Software

System is supplied with CDUExpress Windows based PC software, for data extraction from display unit.
CDU Express is licence free.

Shipping	
Standard	62 x 42 x 34cm, 9kg (wading set)

Ordering

0801001-XX	Single Axis - Cylindrical Sensor with Control Display Unit, interface cable and operating manual in an ABS transit case
0801002-XX	Single Axis - Flat Sensor with Control Display Unit, interface cable and operating manual in an ABS transit case
	The above systems are supplied with: · • 2, 5 or 12m cable (different lengths on request) • Wading rod set 3x 0.5m graduated rods, base and direction knob, in a canvas carrying bag
Note	Where **XX** = Cable length of 2, 5 or 12m

Options

0801003	Wading Rod Set supplied with: • 3x 0.5m graduated rods, base and direction knob, in a canvas carrying bag
0001050	Top Setting Wading Rod Set for use with standard wading rod set consisting of: • 3x 0.5m graduated rods and necessary mounting brackets, in a canvas carrying bag
0801011	Large transit case for instrument and wading rods
0300EA3	External DC power option (includes DC power input lead)

Datasheet Reference: Model 801 - EM Flow Meter | April 2020