DATA SHEET

Product Details

CURRENT

CDU EXPRESS SOFTWARE

Model 001 Flow Meter

The Model 001 Flow Meter represent a standard in open channel flow measurement. First introduced under the “Braystoke” brand over 30 years ago, both meters use the simple premise of converting speed of rotation of the helical impeller into speed of water.

Available as a wading set for hand held use in shallow water, or as a hand-suspension system for use from bridges or boats, the Model 001 offer a quick, cost-effective method of measuring flow in a variety of open channel applications.

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

+44 1803 869292
sales@valeport.co.uk
www.valeport.co.uk

Specifications

Model 001

Type	8011 series High Impact Styrene Impeller
Size	125 mm diameter by 270 mm pitch
Range	0.03 to 10 m/s
Accuracy	±1.5% of reading above 0.15m/s
	±0.004 m/s below 0.15 m/s

Calibration

The instrument is offered as standard with a “Group Calibration”, according to BS ISO 2537:2007.

Within limits, the performance of an impeller is primarily a function of its shape, provided that its bearings work and it is spinning freely. Since all our impellers are manufactured to the same standard shape, we guarantee that they fall within the tolerances of the group calibration, as given above.

Note that the Group Calibration for each impeller is up to 3 m/s - calibration above 3 m/s is by linear extrapolation. Specific calibration of any individual impeller may be performed on request, at Valeport’s own premises up to 1m/s, or through a third party for higher speeds

Data Acquisition

The Model 001 Flow Meter is supplied with a dedicated surface display unit, the Model 0012B. As the impeller rotates, it opens and closes a magnetic reed switch, generating pulses. The Model 0012B measures the frequency of these pulses, and uses the calibration equation to calculate speed of flow from the pulse frequency.

Data may be averaged over any number of seconds from 1 to 600, or according to number of impeller revolutions. The Model 0012B will display real time speed data, as well as the result of the data average, together with a Standard Deviation figure to give added data confidence. A solid-state memory records all results, and the data may be downloaded to PC using the RS232 interface lead supplied.

Configurations

The Model 001 is available in two standard configurations:

Wading Set

Designed for hand held use, with the operator standing in the channel, holding the instrument in position. The system is supplied with 1.5 m wading rod (3 x 0.5 m sections), graduated in cm, and a 2 m 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

Suspension Set

Designed for hand suspension use, with the operator lowering the instrument on a cable into deeper water or from a high bridge. System includes a 35 m suspension cable, together with an extended tail fin for ensuring that the instrument is aligned into the water flow. A range of streamlined weights is also available to aid suspension deployments - contact Valeport for details. Also available is a “Conversion Kit”, which contains all the necessary additional parts to allow a Wading Set to be used as a Suspension Set

Software

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

Ordering

0001001-I/F	Model 001 Wading set
0001002-I/F	Model 001 Suspension set
0001003	Model 001 Conversion Kit
0001050	Top Setting Wading Rods

Key Spares

0001SA2	Model 001 Impeller c/w nose cone
0001SA3	Model 001 Impeller shaft c/w nuts and washers
0001SA4-R	Model 001 Reed switch assembly