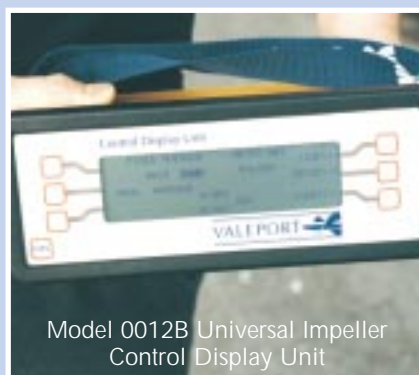
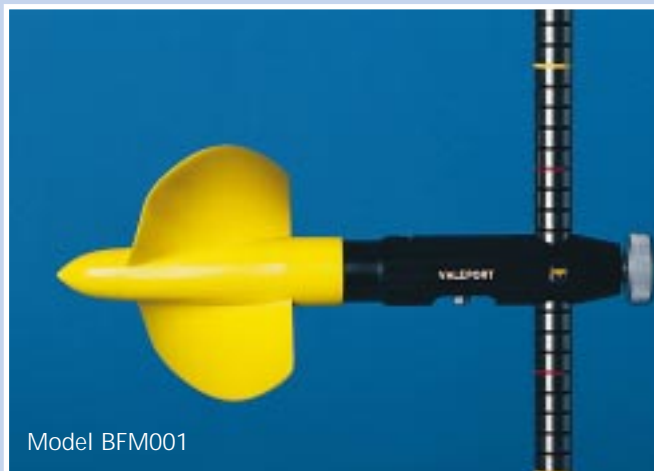


Open Channel Flow Meters

Models *BFM001*
& *BFM002*



FEATURES

- Rugged, low maintenance design
- Reliable, accurate velocity sensing
- Wide measuring range
- Simple in operation
- Calibrated in accordance with BS3680

APPLICATIONS

- Stream river gauging
- Open channel flow
- Hydrometric studies

INTRODUCTION

Valeport have been manufacturing the BFM001 & BFM002 Open Channel Flow Meters for over 25 years (formerly under the trade name "Braystoke"), and they are still among our most popular instruments today. Both instruments benefit from the design of the impellers and bearings, which give low threshold velocity and consistent performance. In addition, the impeller hub design prevents silt and weed entering the bearings, making them suitable for use in a wide variety of environments, including salt, fresh and effluent water, from shallow streams to tidal waterways. This versatility, their simple yet rugged construction, and their compatibility with Valeport's Model 0012B Universal Impeller Control Display Unit, make the BFM001 & BFM002 invaluable tools for hydrometric work.

Open Channel Flow Meters

Models *BFM001*
& *BFM002*

DESCRIPTION

The Valeport BFM001 and BFM002 are both fitted with a high impact styrene, neutrally buoyant impeller with a jewelled main thrust bearing and PTFE radial guides running on a stainless steel shaft. Durability is achieved using a black Acetal body designed to withstand long periods of operation in silt laden water.

The principle of operation of the BFM001 and BFM002 is that rotation of the impeller causes magnets mounted in the impeller hub to open and close a reed switch, generating pulses. The reed switch contact is housed within a sealed, watertight, quick release adapter, which screws into the end of the signal cable.

MODEL 0012B

All of the systems detailed here are supplied as standard with the Model 0012B Universal Impeller Control Display Unit. This unit offers real time and averaged display of velocity and data confidence level for all contact closure current meters, including those of other manufacturers, and is capable of storing calibration coefficients for up to 10 different meters. A data logging facility is also available.

The display is an LCD Graphics display, with optional backlight. Sealed to IP67 and weighing less than 2kg, it is suitable for all conditions and is a powerful tool in the monitoring of current flow.

CALIBRATION

The 8011 Series impeller fitted to the BFM001 and the 1178 Series impeller fitted to the BFM002 have both been group calibrated by HR Wallingford, UK to British Standard BS3680, Part A, 1973. This means that impellers can be changed at any time without the need for recalibration. The group calibration of the 8011 impeller is accurate to $\pm 1.5\%$ of measured velocity, and the 1178 impeller to $\pm 2.5\%$.

Specific calibration of any impeller can be arranged at HR Wallingford, if necessary.

ORDERING INFORMATION

Both BFM001 and BFM002 may be used with wading rods, hand suspended, or with a cableway system. Each wading set contains three 50cm stainless steel wading rods, which are engraved in centimetres and colour coded for 1cm, 5cm and 10cm. The suspension set contains a 35m cable and hanger bar for suspending a sinker weight if necessary. Both systems are supplied with a real time velocity control display unit, the Model 0012B.

Items may be ordered by their individual part numbers (please consult Valeport for details), but the following sets are standard configurations:

0001001 BFM001 Wading Set, comprising Flow Meter with 125mm diameter impeller, Model 0012B Control Display Unit, 3 x 0.5m stainless steel wading rods (graduated in cm, complete with base plate and direction knob), 2m wading cable, carrying case, and operating manual.

0002001 BFM002 Wading Set. As above, except Flow Meter has 50mm diameter impeller.

0001002 BFM001 Suspension Set, comprising Flow Meter with 125mm diameter impeller, Model 0012B Control Display

Unit, 35m suspension cable, 0.75m tail fin, suspension bar, carrying case and operating manual.

0002001 BFM002 Suspension Set. As above, except Flow Meter has 50mm diameter impeller.

0001003 BFM001 Conversion Kit, for converting a wading set to a suspension set, comprising 35m suspension cable, 0.75m tail fin, suspension bar and carrying case.

0002003 BFM002 Conversion Kit. As above, except 35m suspension cable is for use with BFM002.

SPECIFICATIONS

	VELOCITY RANGE	ACCURACY	IMPELLER
BFM001	0.03 to 10 m/s	$\pm 1.5\%$ reading above 0.15 m/s ± 0.004 m/s below 0.15 m/s	125mm dia. by 0.27m pitch
BFM002	0.046 to 5 m/s	$\pm 2.5\%$ reading above 0.5 m/s ± 0.01 m/s below 0.5 m/s	50mm dia. by 0.10m pitch

Valeport manufactures a wide range of oceanographic and hydrometric instruments including self-recording and direct reading multi-parameter current meters, CTD probes, electromagnetic current meters, tide gauges, open channel flow meters, optical instruments, water and plankton samplers, winches, sinker weights, connectors and accessories.

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As part of our policy of continuing development, we reserve the right to alter, without notice, all specifications, designs, prices and conditions of supply of all equipment. Data Sheet Reference No. 001 & 002/2