

FAIRMOUNT

WEATHER SYSTEMS

DATA SHEET

Fairmount Current Flow Meter type FM8035



Fairmount Current Flow Meter type FM8030



Description

The Fairmount FM8035 and FM8030 are current flow meters are both fitted with a high impact 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 FM8035 and FM8030 types 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.

DS8030
DS8035

29-04-03

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Display Unit

All of the systems detailed here are supplied as standard with the the Fairmount 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 and weighing less than 2kg, it is suitable for all conditions and is a powerful tool in the monitoring of current flow.

Calibration

The impeller fitted to the FM8035 and FM8030 models 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 FM8035 impeller is accurate to $\pm 1.5\%$ of measured velocity, and the FM8030 impeller to $\pm 2.5\%$. Specific calibration of any impeller can be arranged at HR Wallingford, if necessary.

How to Order

Both FM8035 and 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 FM8036 Items may be ordered by their individual part numbers (please consult Fairmount for details), but the following sets are standard configurations:

FM8035 Wading Set, comprising Flow Meter with 125mm diameter impeller, Model FM8036 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.

FM8030 Wading Set. As above, except Flow Meter has 50mm diameter impeller.

FM8038 Suspension Set, comprising Flow Meter with 125mm diameter impeller, Model FM80352B Control Display Unit, 35m suspension cable, 0.75m tail fin, suspension bar, carrying case and operating manual.

FM8039 Suspension Set. As above, except Flow Meter has 50mm diameter impeller.

FM8037A Conversion Kit, for converting an FM8035 wading set to a suspension set, comprising 35m suspension cable, 0.75m tail fin, suspension bar and carrying case.

FM8037B Conversion Kit. As above, except 35m suspension cable is for use with FM8030.

CURRENT METER TYPE	VELOCITYRANGE	ACCURACY	IMPELLER
FM8035	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
FM8030	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

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