

Universal Current Meter

Water Flow | Velocity | Discharge | Surface Water

General Description

The OSSB1 universal current meter is a field-proven instrument for **measuring the velocity of water in open and closed channels**. It is used for point measurement of flow velocity in vertical profiles and covers a flow velocity range from 0.025 to 10 metres per second.

The OSSB1 is made from **durable corrosion resistant stainless steel** and it is suitable for use in the **most extreme environments**. It has been designed for lifetime trouble-free operation under normal use and when properly maintained.

The OSSB1 can be deployed from

- a standard 20 mm diameter wading rod (rods are provided in a standard kit)
- a boat or bridge using a single drum gauging winch (e.g. WS250) and winch board (e.g. SAN22SS)
- a bridge using a single drum gauging winch (e.g. WS250) and bridge crane (e.g. 3WBC or 4WBC)
- a cableway using a double drum winch or Hornet Plus system with a suitable gauging weight

The current meters are modular systems: You can tailor the perfect solution for your application with a choice of several fans, rods, accessories, etc. For example, with the optional tail fin assembly directional stability during suspended measurements is controlled. The full range of equipment needed for successful stream gauging is available from KISTERS.

Please contact us for advice!

Applications

The OSSB1 is especially suitable for manual discharge measurements from low flow (i.e. wadable streams) to high flow (i.e. flood conditions). Thanks to its low start velocity of only 0.025 m/s, the OSSB1 shows correct results even in very slow flowing channels.

Main Features

- **Corrosion resistancy:**
 - Body: polished stainless steel
 - Fans: polished stainless steel and hand balanced
- **Precise and reliable measurements:** Encapsulated magnetic reed switch ensuring reliability and a 'clean' contact signal
- **Direct results:** Velocity displayed directly with KISTERS' counters CMCsp, CMC20A, PVD200, or with the paperless stream gauging tablet application HydroTab
- **Easy deployment** on standard wading rods (supplied with the basic kit) or single drum gauging winches



Alternative Model for Shallow Waters

KISTERS' miniature current meter OSSPC1 is used for point measurement of flow velocities for discharge calculation in wadeable flowing water.

Technical Specifications

Fan / Propeller Specifications

(The choice of fan/propeller depends on the specifics of the site such as discharge and the geometry of the riverbed or channel. Please contact us for advice.)

Fan No.	Diam. x Pitch	Start Velocity (m/sec)	Max. Velocity (m/sec)	Component Effect
A	100 mm x 0.125 m	0.025	5	+/-45 °
1	125 mm x 0.250 m	0.025	10	+/-5 °
2	125 mm x 0.500 m	0.040	10	+/-5 °
4	80 mm x 0.125 m	0.025	4	+/-5 °

Calibrated Accuracy

+/-1% (stated accuracy will only be maintained when serviced and calibrated regularly)

Calibration

- Each OSSB1 fan is individually calibrated in KISTERS' rating tank
- Compliant with ISO 3455:2021 and ISO 2537:1988
- Calibration certificate delivered with each fan

Scope of Delivery (Contents of the basic kit)

- In durable waterproof carry case: OSSB1 Body, OSSB1 Connecting Lead, Body Key, Fan type A (are accessories), 2 spare bearings, 1 reed switch, Screwdriver (Short), Screwdriver (Small), O-Rings for (fan carrier-1, reed switch cover-2, cable connector-1, terminal post-1), Ground Post, 1 oil bottle, Rating Tables
- In canvas bag: 1 Wading Rod of length 1.8 m in 3 sections (3 x 0.6 m), 20 mm diameter

Packed Dimensions & Mass (basic kit)

- Kit in carry case: 500 x 400 x 200 mm; 8 kg
- Wading rods (1.8 m in canvas carry bag): 700 x 100 mm; 2 kg

Accessories

- Current Meter Counter: PVD200
 - Fans: type 1, 2 and 4 (for details see above)
 - Tail Fin Stem Assembly
- Accessories must be ordered separately. See below for further information.

Accessories



Current Meter

Counters: Features: waterproof enclosures, simple button controlled menus, embedded LCDs and beepers to make counts audible. Preset

or manually stopped sampling period. Improved accuracy due to signal conditioning. Bluetooth interfaces for use with HydroTab Stream Gauging Computer available



HydroTab Stream Gauging Application:

Fully 'paperless' system consisting of HydroTab tablet and software for water velocity measurements and calculation of total stream discharge.



Gauging Weights:

Columbus and nose mounted ground feeler models. Streamlined shape reduces resistance to flowing water.



Bridge, Boat & Cableway Deployment and Positioning Accessories:

KISTERS offers e.g. manual winches, winch boards, bridge cranes, cableways, various towing systems, gauging weights, etc.

Please ask for details.

Reseller

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