

Miniature Current Meter

WATER FLOW | VELOCITY | DISCHARGE | SURFACE WATER

General Description

The OSS-PC1 miniature current meter is a field-proven instrument for **measuring the velocity of water in shallow open and closed channels**. It is used for point measurements of flow velocities on the water surface or in vertical profiles down to the riverbed at **flow speeds of 0.025 m/s to 6 m/s**.

The OSS-PC1 body is made from corrosion-resistant nickel silver with anodised aluminium fans. It is suitable for use in the most **extreme environments** and has been designed for lifetime trouble-free operation under normal use and when properly maintained.

HyQuest Solutions' current meters are modular systems: You can **tailor the perfect solution for your application** with a choice of several fans, rods, accessories, etc.

The full range of equipment needed for successful stream gauging is available from HyQuest Solutions.

Please contact us for advice!

Applications

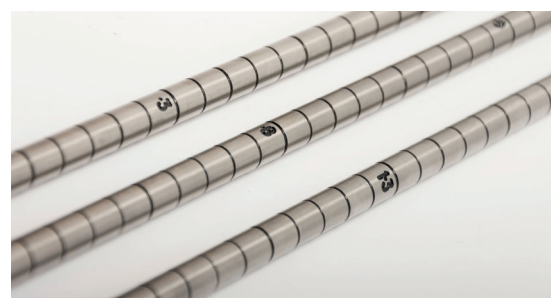
The streamlined and robust assembly of body and fan makes the OSS-PC1 especially suitable for

- water velocity measurements,
- stream gauging, and
- discharge measurement

in shallow water. Thanks to its low start velocity of only 0.025 m/s, the OSS-PC1 shows correct results even in very slowly flowing channels.

Main Features

- **Corrosion-resistancy:**
 - Body: nickel silver
 - Fans: anodised aluminium
- **Precise and reliable measurements:** Encapsulated magnetic reed switch ensuring reliability and a 'clean' contact signal
- **Direct results:** Direct display of velocity or number of revolutions with HyQuest Solutions' counters or the paperless stream gauging tablet (see flip side)
- **Easy deployment** on standard wading rods (supplied with standard kit) and top set wading rods



Alternative Model for Deeper Waters

The HyQuest Solutions universal current meter OSS-B1 is used for point measurements of flow velocities on the water surface or in vertical profiles down to the riverbed at flow speeds of 0.025 m/s to 10 m/s. Deployment: mounted on wading rod, from a bridge/boat using winches and outriggers, or on cableways.

Technical Specifications

Accuracy

+/- 1 %

Calibration

- Each current meter individually calibrated in HyQuest Solutions' calibration tank
- Compliant with ISO 3455:1976 and ISO 2537:1988
- Calibration certificate delivered with each current meter

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
1	50 mm x 0.05 m	0.025	2	+/-30 °
3	50 mm x 0.25 m	0.034	6	+/-10 °
5	30 mm x 0.05 m	0.040	2	+/-20 °

Scope of Delivery (basic kit)

- Propeller types 1 and 3 (additional propellers available, see table above)
- 2.5 m connecting lead, tools, oil, spare bearings, spare reed switch assembly
- Rod: 1.5 m (3 x 0.5 m), 9 mm diameter, in canvas carry bag, with point and base plate
- Carry case (durable waterproof pelican case)

Packed Dimensions & Mass

Kit in carry case: 500 x 400 x 200 mm; 6 kg

Accessories



Current Meter Counters

(various models): Features: waterproof enclosures, simple button controlled menus, embedded LCDs and beepers to make counts audible. Pre-set

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



HydroTab Stream Gauging Computer

Assembly of HydroTab software and a tablet suitable for harsh and wet environments. Used for direct water velocity measurements, or collecting, calculating, displaying and emailing full river gauging data.



Wading Rods: Range of top setting wading rods developed to simplify gaugings in small streams. Suitable for various applications and equipment.

Please ask for details!

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