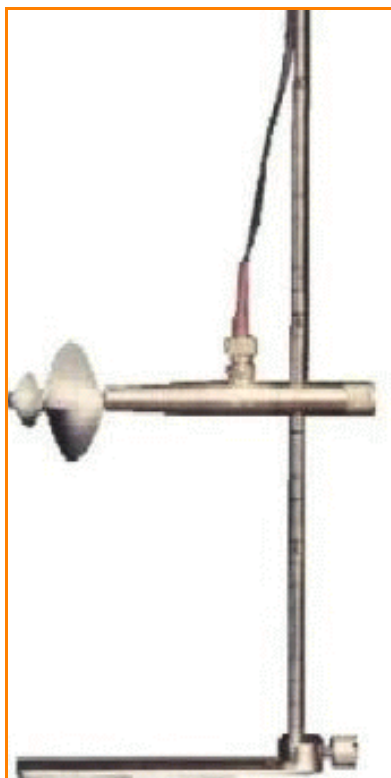


UNIVERSAL CURRENT METER MODEL OSS-PC1



*Pygmy Current Meter
Model OSS-PC1*

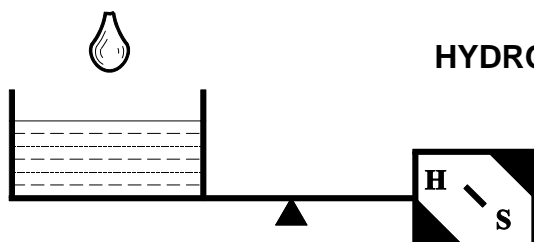
- For Measuring Water Velocities from 0.025 to 6.0 m/sec
- Streamlined and Robust Nickel Silver Body
- Stainless Steel Axle
- Anodised Aluminium Propellers, 3 sizes
- Non Contact Switching System - m Permanent Magnet and Reed Switch
- Special Sewer Model Available
- Unique Propeller Retainer

**ISO
9001**

QUALITY SYSTEM
CERTIFIED

HYDROLOGICAL SERVICES PTY.LTD

HYDROLOGICAL INSTRUMENTS & EQUIPMENT
DESIGNED AND MANUFACTURED
BY HYDROLOGISTS



DESCRIPTION

The OSS PC1 Pygmy Current Meter is a world recognised design instrument for measuring the velocity of water in shallow natural water courses and canals, small pipes, laboratories and river models. The OSS PC1 complements the OSS B1 Universal Current Meter to provide solutions for all velocity measuring applications.

OPERATION

The OSS PC1 Pygmy Current Meter consists of a streamlined body which houses the sensing mechanism, an encapsulated reed switch, and the propeller shaft which has a permanent magnet mounted such that each rotation of the shaft produces a pulse from the reed switch. The pulses are conducted through a lead to the surface where they are counted by a Current Meter Counter. The velocity of the stream is proportional to the rotations of the propeller. The following equation is used to calculate the velocity.

$$V = K \times N \times A$$

where: *V* Velocity

K Hydraulic pitch of the propeller

N Number of pulses counted

A A constant determined by rating tests

Each OSS PC1 is calibrated in accordance with AS 3778.6.3-1992/ISO 3455-1976. A calibration certificate and rating table are provided. 0.25 m pitch and a 50mm diam. x 0.05 m pitch. They are made of anodised aluminium alloy. Other propellers are available.

FEATURES

The OSS PC1 superior design offers:

- 1) Streamlined nickel silver body.
- 2) Low Start Velocity -Signals are generated by a magnet impulse device.
- 3) Ease of replacement of the Reed Switch Assembly
- 4) Encapsulated Reed Switch to resist damage from dropping or knocking.
- 5) Heavy duty Pelican Case with moulded foam.
- 6) 'Hockey Stick' style Sewer Rod to position meter in pipes from a man hole.

SUSPENSION METHODS

Option 1. The OSS PC1 is supplied with 3 x 0.5 m sections of 9mm diameter Stainless Steel Rod for locating in the water stream. These rods are graduated every centimetre and numbered each decimetre. A detachable base is used to position the rod on the stream bed or channel floor. A Top Setting Rod is available to allow the OSS PC1 to be relocated along the rod without having to withdraw the rod from the stream. This allows the user to continuously observe velocities at different depths of the stream.

Option 2. The OSS PC1 can be supplied with a clamping adaptor(Part No. PYG13A) to allow it to be attached to a 20mm diameter rod. This configuration is better suited for higher velocity measurements.

Option 3. The OSS PC1 can be supplied with a clamping to allow it to be attached to a Top Setting Rod (TSR). This configuration is better suited for wading in shallow water.

PROPELLERS

Propellers are fitted with a unique retainer to prevent accidental loss during Sewer gauging. The OSS PC1 is supplied with two propellers, ie, a 50mm diam. x 0.25 m pitch and a 50mm diam. x 0.05 m pitch. They are made of anodised aluminium alloy. Other propellers are available.

CURRENT METER COUNTERS

The OSS-PC1 provides a pulse to a Current Meter Counter. Hydrological Services offers two counters to suit all applications.

HydroMate: is the top of the range counter with direct velocity reading functionality, more details please refer to bulletin (5)

CMC20A: is a complete counter which can be set to count pulses for a specific time period (10-200 secs). The counter stops when the time period has elapsed and shows a digital reading for the number of pulses.



HydroMate



CMC20A

SPECIFICATIONS

The OSS PC1 is supplied in a basic kit as follows: Propeller Type 1 and 3, 2.5 m Connecting Lead, Tools, Oil, spare Bearings, 3 x 0.5 m length, 9 mm diameter Rods, Detachable Base, Calibration Tables and Carry Case.

Propeller Specifications:

Type	Size	Max Velocity m/s	Start Velocity m/s	Range of Component Effects
1	50mm x 0.05m	2.0	0.025	± 30°
3	50mm x 0.25m	6.0	0.035	± 10°
5	30mm x 0.05m	2.0	0.050	± 20°

Packing Dimensions: 6Kg, 0.02 m³

Note: Specifications are subject to change at anytime without notice.

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