

WATER DISCHARGE MEASUREMENTS



You will return to the contents of P2 WATER by clicking the pictogram

P2.25

Water discharge measurements are important for the determination of a hydrologic balance in a certain area.

For the determination of the current velocity in water ways, measuring discharges from drainage systems and/or the registration of water movement in open irrigation channels, various kinds of measuring equipment have been developed.

An efficient and accurate hydrological research dictates strict requirements for the equipment to be used. Both current velocity meters, the flumes and the self-recording drain discharge recorder meet these requirements.

13.12 Current meter with synthetic propeller

The instrument is used for the accurate determination of the current velocity in water ways, channels, rivers and the sea. The meter can also be applied in polluted water currents.

The measurements are executed with the propeller mounted on the rod(s) or connected to a cable. The current velocity meter has a measuring range of 0.025 to 10 m/sec.

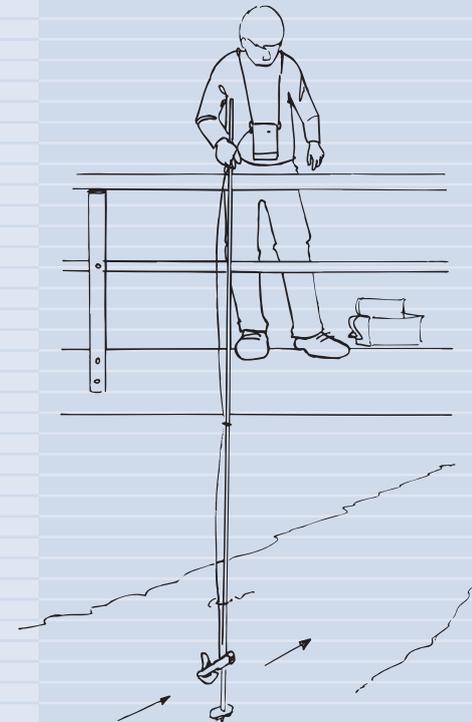
The complete set contains: a streamlined current velocity meter with a synthetic propeller, a digital counter, extension rods with graduation, cable, accessories and case.

The meter with the extension rods is usually applied for measurements in shallow creeks or rivers with low current velocities.

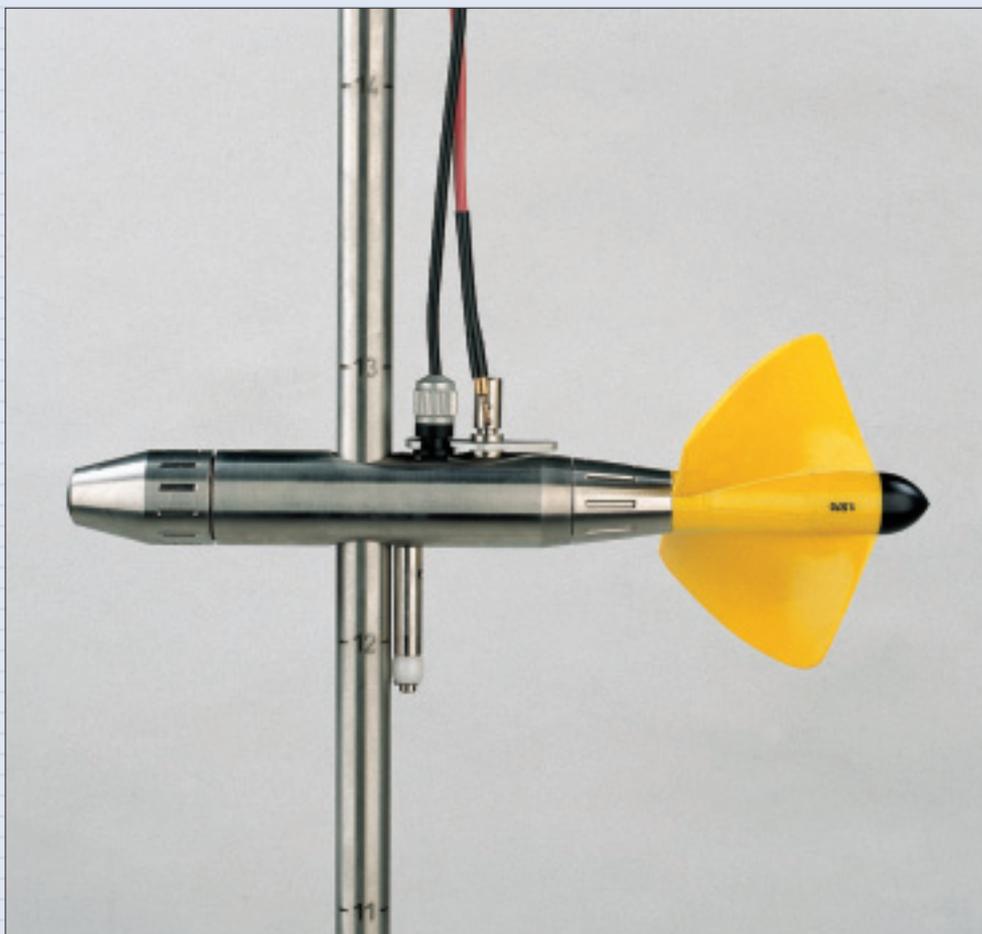
The synthetic propeller is fiberglass reinforced. The digital counter, fitted with a carrier belt, registers up to 10 pulses per seconds.

In large water ways with higher water levels and current velocities the current velocity meter can be connected to a cable with single drum winch (optional), which can be mounted either to the railing of a bridge or a boat.

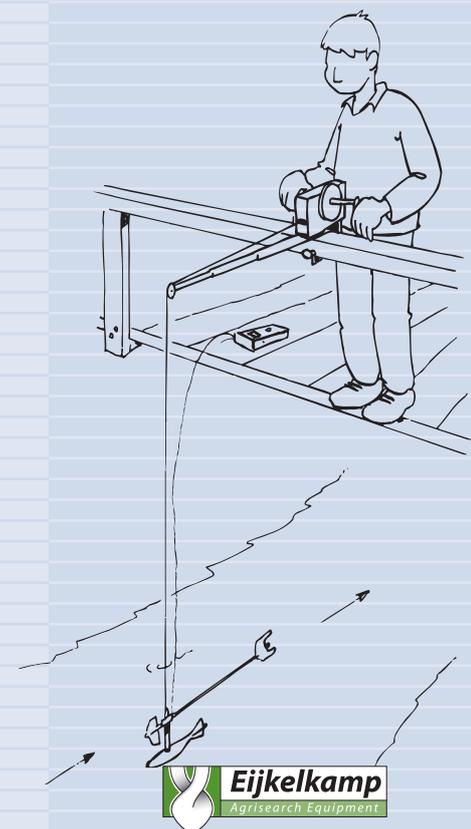
Measuring the current velocity with the meter mounted to the rods.



Lowering the current velocity meter using a winch and an arm fastened to the railing of the bridge.



Current meter with propellor



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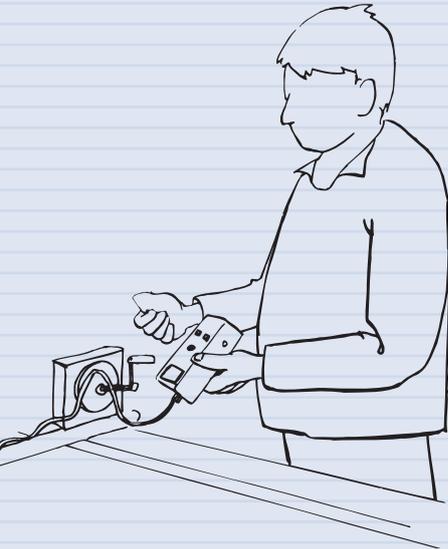


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Reading the digital counter.



Advantages

- Exclusive application of anticorrosive materials.
- Low starting speed.
- Almost frictionless contact transmission increases the precision of the instrument.
- Simple control and maintenance.
- Rod and wire operation possible.
- Very complete set.

13.13 Mini current meter with aluminium propeller

The mini current meter with aluminium propeller is used in small ditches, with low water levels. Measuring range 0.03 to 2.5 m/sec. The instrument is included in a complete set.

sewage systems, pipes, etc. Suspended from a wire the meter can be applied at great depth. The meter is balanced in such a way that it will remain in a horizontal position even if the meter for instance is pulled at speed by a line. The propeller is linked directly to a six digit counter that registers and visualizes every single rotation of the propeller, similar to the mileage counter in a car.

The counter is placed within the instrument. After retrieval it is possible to read the overall number of rotations of the propeller on the counter through a clear synthetic window.

The meter can be mounted to a wire as well as to a telescopic rod (with an extended length of 2.4 meter).

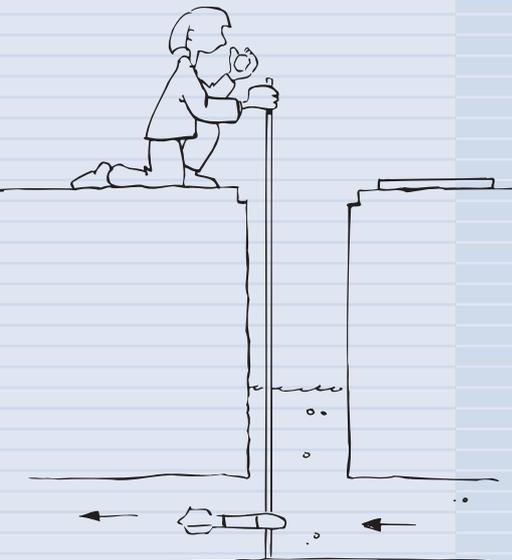
13.14 Mechanical current meter with propeller

This small, lightweight mechanical current velocity meter has a measuring range of approximately 0.1 m/sec. to 7.9 m/sec. The meter is used for current velocity measurements in rivers, channels,

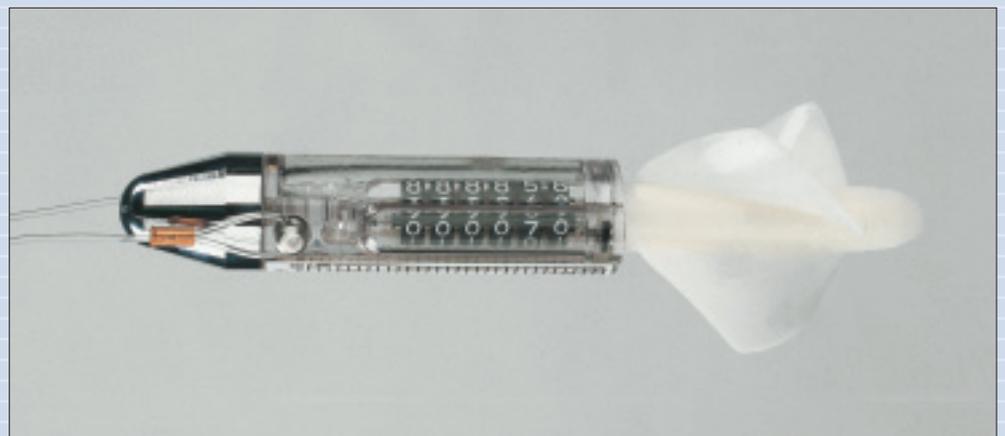
Advantages

- Small and lightweight.
- Corrosion proof.
- Can be applied at great depth.
- Balanced for dynamic stability.

Measuring the current velocity in a sewage outfall.



Current meter with synthetic propeller, complete set



Mechanical current meter