FlowSens

Mobile discharge measurement in rivers, channels, sewer flow, fresh-, waste- and saline water

Key Features

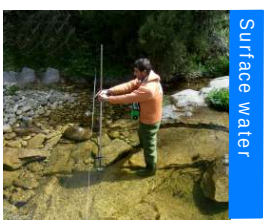
- High accuracy and reliable performance
- Small solid-state sensor
- Fully bi-directional range of ± 5 m/sec
- Logging of up to 1000 values
- Three averaging methods
- Waterproof control unit, 3 year warranty
- Use with sinker weights possible

Single Axis Electromagnetic Flow Meter

FlowSens

Storage Case

Application in River



Measurement in Portugal

Mobile application on rod

Application in River

QZV
We are certified
ISO 9001:2008
Certificate No. 01150509
Quality is our standard

Description

We have applied years of experience in electromagnetic technology to the FlowSens. This small solid-state sensor has been designed specifically for use in open channels where fouling by weed or sewage can be a problem. Our knowledge has ensured that the FlowSens is a high precision instrument which can be relied upon to give accurate readings. The FlowSens has an accuracy of ± 0.5% of reading, a wide measurement range of ±5 m/sec and can be used in only 5 cm of water. The instrument is unaffected by changes in conductivity and can be used in a range of fluids including fresh and waste water, salt water or foodstuffs.

The digital control unit, supplied with the instrument, gives readings of velocity (realtime and average), standard deviation and allows full sampling and averaging setup and logging of data. For field use the rugged case protects the probe and surface unit, and the tough canvas bag means that the wading set is easily carried. The electromagnetic flowmeter is based on Faraday's Law that a conductor (water or any other conducting fluid) moving in a magnetic field (produced by a coil in the sensor) produces a voltage (measured by a pair of electrodes). The FlowSens measures flow above the sensor head in 5 cm or more fluid, along a single axis. The flow rate is indicated on the control unit which can also log the data up to a maximum of 1000 records. The control unit is also used to set-up many other parameters such as the sampling and averaging periods. The logged data can be easily exported to PC using RS232 communications.

Technical Data

Electromagnetic Sensor

Accuracy:	±0.5% reading plus zero stability
Measuring range:	-5 to +5 m/s (calibrated for positive flow only)
Zero Stability:	<0.005 m/s
Filter:	digital (0.3 Hz)
Dimensions:	Ø sensor 40mm length: 210 mm
Material:	stainless steel and polyurethane signal cable
Cable:	PU 5m (standard) max. 100m
Operation temperature:	- 5 to 40°C
Storage temperature:	-10 to 70°C

Control Display Unit

Display of:	Real time flow, average flow, standard deviation of flow in average, count-down of time in average period, average mode and period, data record number and series, date, time and low battery.
Average modes:	moving, fixed or free running (multiple fixed)
Average period:	user selectable, 1-999s
Memory:	up to 1000 readings
Display resolution:	0.001m/s
Display update:	1 Hz
Unit:	m/s or ft/s
Backlight:	switchable on/off
Calibration Setting:	enables user to input zero and gain for particular unit after calibration
Hydrodynam. calibration:	enables user to input non-liearity of sensor after calibration
Acoustic signal:	switchable on/off
Dimensions:	244 mm x 163 mm x 94 mm
Weight:	2 kg
Housing:	Die cast ABS IP 67 with carry strap
Operation Temperature:	-5° to 50°C
Storage Temperature:	-10° to 70°C
Interface:	RS 232, 4800 Baud, 8 data 1 stop bit, no parity, Realtime- and logged data output: average flow, standard deviation, date, time. Real time data is output at the end of every averaging period.
Power Supply:	8 C cells (Alkaline), 25 hours measuring time without and 17 hours with backlight.

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