



SEBA

HYDROMETRIE

FlowSens

Single Axis Electromagnetic Flow Meter

QZY We are certificated
ISO 9001
certificate no. 01110505
Quality Is Our Standard



- High accuracy and reliable performance
- Small solid-state sensor
- Fully bi-directional range of ± 5 m/sec
- Logging of up to 1000 records
- Three averaging methods
- Waterproof control unit
- 3 year warranty
- Applications:
 - River, stream and sewer flow
 - Open channel monitoring
 - Fresh, waste and saline water

Surface Water

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 $\pm 0.5\%$ of reading, a wide measurement range of ± 5 m/sec and can be used in only 5 cm of water. The FlowSens 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 details

Electromagnetic Sensor

<i>Accuracy:</i>	$\pm 0.5\%$ reading plus zero stability
<i>Range:</i>	-5 to 5 m/sec (calibrated for positive flow only)
<i>Zero Stability:</i>	<0.005 m/sec
<i>Filter:</i>	digital (0.3 Hz)
<i>Dimensions:</i>	13 mm x 39 mm x 78 mm
<i>Materials:</i>	Polyurethane moulding with integral 8 mm diameter polyurethane signal cable
<i>Cable Length:</i>	4 m standard (max. 100 m)
<i>Operating temperature:</i>	-5 to 40°C
<i>Storage temperat.:</i>	-10 to 70°C



Control Display Unit

<i>Display of:</i>	Real time flow, average flow, standard deviation of flow in average, countdown of time in average period, average mode and period, data record number and series, date, time and low battery.
<i>Average modes:</i>	Moving, fixed or free running (multiple fixed)
<i>Average period:</i>	User selectable, 1-999 s
<i>Memory:</i>	max. of 1000 readings
<i>Display Resolution:</i>	0.001 m/sec
<i>Display update:</i>	1 Hz
<i>Units:</i>	m/sec or ft/sec
<i>Backlight:</i>	Switchable On/Off
<i>Calibration setting:</i>	Enables user to input zero and gain for particular unit after calibration.
<i>Hydrod. calibration:</i>	Enables user to input non-linearity of sensor after calibration.
<i>Beeper:</i>	Sounds at 1 Hz when sensor on or when keys pressed, and every 5 minutes when unit is in standby. Switchable On/Off.
<i>Dimensions:</i>	244 mm x 163 mm x 94 mm
<i>Weight:</i>	2 kg
<i>Construction:</i>	Moulded in ABS plastic. Membrane keys. Sealed to IP67 (immersion to 0.3 metres for 10 seconds). Adjustable shoulder strap. Integral battery pack. Mil-spec connectors with pro-caps.
<i>Temperature:</i>	<i>Operating temperature:</i> -5 to 50°C <i>Storage temperature:</i> -10 to 70°C
<i>Interface:</i>	RS232, 4800 baud, 8 data, 1 stop, no parity <i>Real time and logged data output:</i> Average flow, standard deviation, date, time. Real time data is output at the end of every averaging period.
<i>Power Supply:</i>	8 C Cells (Alkaline):25 hours measuring time without backlight(17 hours with backlight)

The right is reserved to change or amend the foregoing technical specification without prior notice.



SEBA Hydrometrie GmbH
 Gewerbestr. 61a • D-87600 Kaufbeuren
 Tel.: +49 (0)8341 / 9648-0
 Fax: +49 (0)8341 / 9648-48
 E-Mail: info@seba.de
 Internet: www.seba.de

represented by: