



FlowSens/FlowFlat

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

- Portable measuring instrument with a magnetic inductive flow sensor for mobile flow measurement on a Ø 20 mm wing rod
- Point measuring method (detection of point velocities in the measuring verticals)
- Battery-powered handheld terminal with a large LCD and operated by keypad



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Description

The FlowFlat mobile measuring system is the result of many years of experience in the field of magnetic-inductive flow measurement. Due to the measuring principle (Faraday's law of induction), the FlowFlat does not require any moving particles in the measuring medium, unlike ultrasonic Doppler measuring systems. Flow measurements, e.g. of spring discharges, can therefore be carried out with the FlowFlat without any problems. The FlowFlat also offers great advantages over the hydrological vane, especially under difficult conditions such as turbulent flows, low flow velocities and/or weedy measuring cross-sections. Changes in conductivity have no influence on the measurements.

With a measuring accuracy of ± 0.5 % of the measured value and a measuring range of ± 5 m/s, reliable flow measurements can be carried out from a water depth of just 5 cm in conjunction with the Ø 20 mm vane rod (accessory). The FlowFlat is characterized by a robust design, simple operation and a wide range of applications.

Programming and setting is carried out with the help of simple menu navigation via the large, backlit LC display and a waterproof membrane keypad. The measuring system is ready for use after just a few presettings and the user can start measuring. All important information (e.g. determined flow velocities as instantaneous and average values, standard deviation from the average value) is then displayed. Measured values are saved at the touch of a button. The memory contents can be transferred to a Windows PC via the integrated RS232 interface.



The standard scope of delivery includes the magnetic-inductive sensor with 5 m signal cable (other cable lengths on request), the operating terminal, an interface cable and an impact-resistant transport case.

The optional Q4 database and evaluation software (Windows) is available to users for comprehensive measurement data evaluation in the office. For more information on the FlowFlat, accessories and Q4 software, please visit our SEBA homepage (www.seba.de).



Technical Data 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, 1-999 s
Memory:	up to 1000 readings
Display resolution:	0.001 m/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
Hydrodynamical 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 °C to 50 °C
Storage Temperature:	- 10 °C to 70 °C
Interface:	RS 232, 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 h measuring time without, or 17 h with backlight.

Technical Data FlowFlat

Accuracy:	± 0.5 % reading plus zero drift
Measuring range:	-5 to + 5 m/s (calibrated for positive flow only)
Zero Drift:	< 0,005 m/s
Min. Depth:	5 cm
Sensing Volume:	Cylinder (10 mm high) Ø 20 mm
Material:	PU
Cable:	PU 5 m (standard) max. 100 m
Operation Temperature:	- 5 °C + 40 °C
Storage Temperature:	- 10 °C+ 70 °C

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