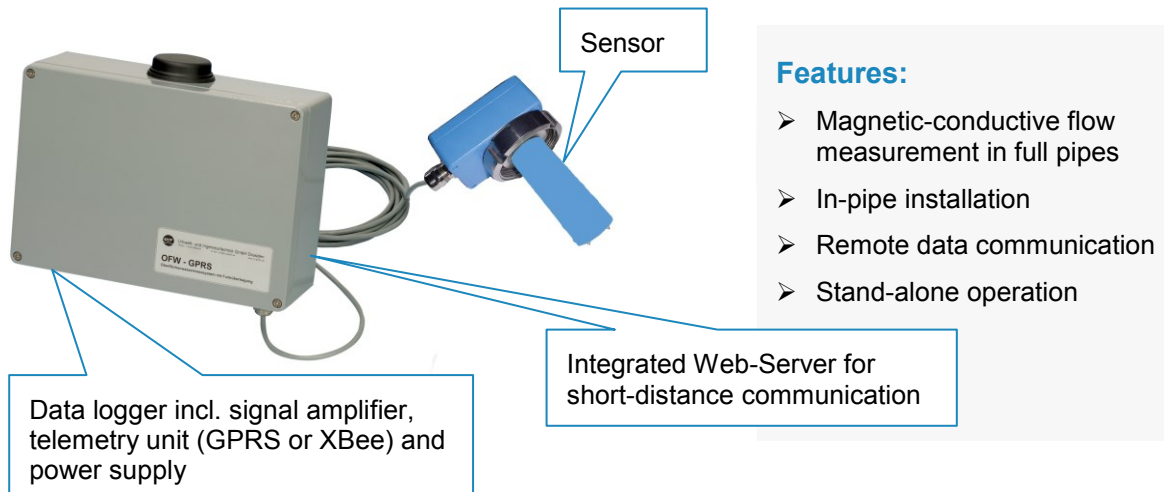
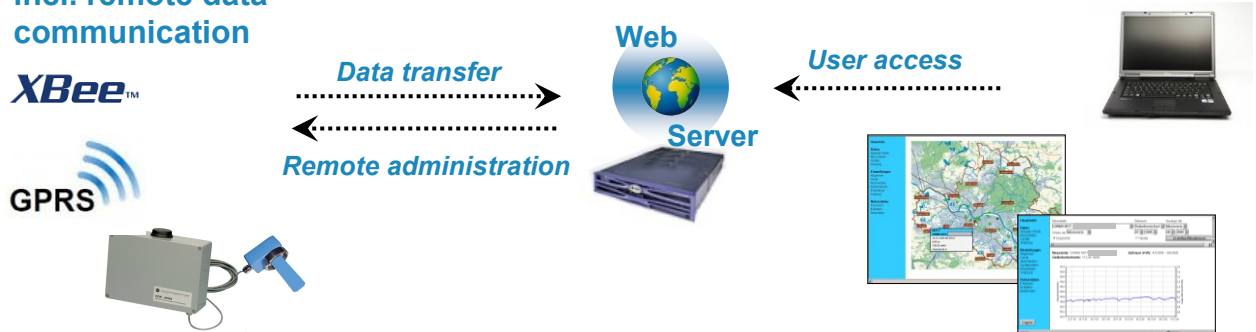


SENSOpipe

Magnetic inductive flow measurement in pipes including telemetry



Flow measurement in pipes incl. remote data communication



Wireless data transfer

- ⇒ Direct access to webserver
- ⇒ Actual data accessible via any web enabled device for many user simultaneously
- ⇒ Defined and low operating costs (data transfer only, no time-dependent charges)

Measuring principle

The principle of magnetic-inductive flow measurements utilizes the Faraday's law, where a conductor moving in a magnetic field induces a voltage of amplitude proportional to the velocity of the conductor. The conductor is the media being measured.

The sensor produces a magnetic field in the main pipe, into which it is installed. The induced voltage is measured across two electrodes, situated at the end of the sensor. An exact measurement is guaranteed from a minimum conductivity of as little as 10 $\mu\text{S}/\text{cm}$.

The system is applicable for flow measurements in full pipes with a nominal width of DN 50 to DN 1500. The sensor can be welded into existing piping using welding nozzles or by using a special armature.



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SENSOpipe

Magnetic inductive flow measurement in pipes including telemetry

Pipe-Flow Sensor	
Measuring principle	Magnetic-inductive, in pipe installation – one installation point for velocity measurement and calculation of flow rate
Measuring range	Adjustable: min. 0.02 – 2.5 m/s, max. 0.02 - 10 m/s
Accuracy	Accuracy $\pm 1\%$ of measured velocity value or ± 0.03 m/s under reference conditions measured in proximity of sensor (the respectively bigger value applies)
	Required minimal conductivity of water 10 μ S/cm
Data logger with telemetry, power supply incl. signal amplifier for pipe flow sensor	
Input	3 x 0-20 mA, 3 x 0-5 VDC
Resolution	16 bit
Counter inputs	2 counter inputs,
Interfaces	MODBUS, RS 485 RS 232 for additional sensor, e.g. camera
Data transmission time	Adjustable, independent of sampling interval
Memory data	512 MB storage for data, approx. 1.000.000 recorded files
Memory pictures	512 MB storage for pictures
Wireless data transfer	Type 1 or Type 2 alternatively
	Type 1: Integrated GPRS/GSM modem, 4 band GSM/ GPRS Selectable data transmission modes: GPRS-FTP, GPRS-http; GSM
	Type 2: XBee short distance communication, 868 MHz, selectable power 1 mW, 25 mW, 100 mW, 200 mW or 300 mW
Interface	USB 2.0 for read out of data's and parameterization
	Optional: Integrated WEB-Server to provide a WLAN access point. Browser-based communication by Smart-Phones, Tablets, etc. for display of actual values and basic parametrization of data logger without installation of software
Parameterization	PC software SENSOlog
Standard antenna	Roof antenna, 2 dB
SMS alarm notification	Two freely selectable channels with up to 6 alarm thresholds 5 SMS messages for each alarm applicable for type 1
Power supply	Integrated accumulator 12V/ 10 Ah, DC/DC converter 12VDC/ 24 VDC and solar panel 10 Wp
	Alternatively 220VAC
Housing	Aluminum injection molding, IP 65
Accessories	
	Weld-on nozzle for mounting sensor in steel pipe
The data sheet described optional configuration. The detailed scope of delivery will be described with the quotation.	



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