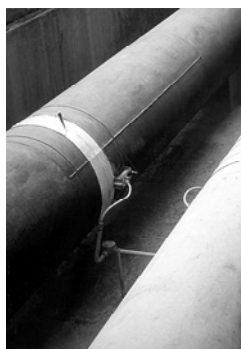




Badger Meter Europa

## Flow measurement in the water and waste water industry

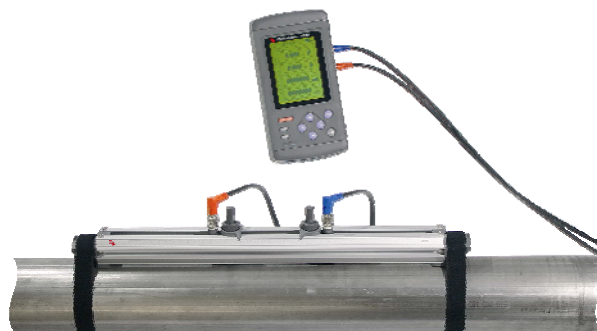


### Mobile flow measurement in pressure pipes

#### PortaSonic 7000

The meters of the PortaSonic 7000 series are portable ultrasonic flow meters designed for accurate and reliable non-intrusive flow measurement of influent/effluent process water and other liquids. Printer optional.

These meters are working according to the transit time differential method and are used for flow measuring in pressure pipes from DN 13 to DN 6000.



DN	:	13 to 6000
Temperature range	:	-10°C to +55°C (without printer) -10°C to +45°C (with printer)
Outputs	:	RS232, 4-20 mA max. load 1 k $\Omega$
Inputs	:	DC voltage input, 4-20 mA
Display functions	:	act. Q and v, total for- and backward, trend, recorded data of the logger
Data logger	:	40.000 data, time, act. Q, act. v, totalizer, analog input and status
Applications	:	All liquids

UF overview 06/05

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## Stationary flow measurement in pressure pipes

### MoniSonic 4500

The series MoniSonic has been designed for exact and reliable non-intrusive flow measurement of supply and discharge water as well as other fluids.

These meters are working on the transit time differential measuring principle.

Suitable strap-on sensors are available for the different pipe diameters.



DN	:	25 to 600
Temperature range	:	-20°C to +50°C
Outputs	:	4-20 mA, max. load 600 $\Omega$ RS232 or RS485 optional, synchronization optional Open collector, 1 relay output
Display functions	:	act. Q and v, total for- and backward, alarms
Applications	:	Clean liquids

### MoniSonic 4600/4700

The series MoniSonic has been designed for exact and reliable non-intrusive flow measurement of supply and discharge water as well as other fluids.

These meters are working on the transit time differential measuring principle.

Suitable strap-on sensors are available for the different pipe diameters.



DN	:	13 to 6000
Temperature range	:	-10°C to +60°C
Outputs	:	4-20 mA, max. load 1 k $\Omega$ 2 x open collector, 30 VDC / 0,1 A RS232 (optional)
Display functions	:	act. Q and v, total for- and backward, alarms
Applications	:	All liquids

## Electromagnetic flow meter Magnetoflow®

The Magnetoflow® series is designed to measure flow, e.g. aerated sludge in closed pipes where ultrasonic transit time technology is not applicable. The meters are factory calibrated with an accuracy higher than 0,25%. Other applications are to measure water or waste water with high accuracy requirements.

DN : 6 – 1400  
PN : 16 (10)  
Flow range : 0 – 55450 m³/h  
Display : Q and V  
Max. 10 kHz pulse output  
2 relays, transistor  
0/4 – 20 mA signal output, programmable



## Stationary flow measurement in open channels and partially filled pipes

### VHQ 500-SPS

The series VHQ 500-SPS is designed to measure flow of waste water in small channels between DN/W 150 up to 1000 and partially filled pipes. The metering system consists of two sensor elements: a Doppler velocity measurement and a hydrostatic level measurement. Both elements are integrated in one sensor housing.



W	:	150 – 1000 mm
DN	:	150 – 1000 mm
Flow range	:	v 0,1 – 9 m/s H 0 – 2540 mm
Accuracy	:	±5%
Memory	:	256 KB (25000 data records)
Signal outputs	:	2 x 0 / 4 – 20 mA
Display	:	v, H, Q and volume V, report and graphic
2 pulse outputs, freely programmable		
RS 232 serial port		
Data evaluation software for reports and graphics		
Power supply	:	230 VAC 50/60 Hz

### iSonic 2000

The iSonic 2000 is an intelligent and versatile ultrasonic meter/controller designed to measure level, volume and open channel flow. iSonic's unique features allow accurate measurements in harsh environments. The iSonic uses the measured signals for control purposes and records them on an internal data logger.



Outputs	:	2 analog outputs 4-20 mA or 0-5 V, isolated 5 relays, max. 250 VAC / 6 A 2 digital outputs max. 80 VDC / 30 mA RS232 or RS485 Voltage output 24 VDC / 50 mA and 12 VDC
Inputs	:	2 analog inputs 4-20 mA, isolated 4 digital inputs 1,3 VDC / 2 mA, optically isolated
Display function	:	8 lines for level, flow, total, volume and distance
Data logger	:	40000 data records

## Level measurement

### iSonic 2000

See description on page 4.



### L2xx

The L2xx series is a 2-wire ultrasonic level sensor designed for continuous level measurement of liquids or viscous fluids. The maximum level ranges are 6, 8, 10 and 15 meters depending on type at a block distance of  $\geq 250$  mm.



Range	:	L206: 0,25-6,00 m / L208: 0,3-8,00 m / L210: 0,4-10,00 m / L215: 0,5-15,00 m
Current output	:	4-20 mA
Accuracy	:	$\pm 0,25\%$ of maximum span
Operating temperature	:	-20°C to 60°C

### DataControl 2500

The DataControl 2500 is an evaluation device which can be connected to further equipments with analog or digital outputs.



Outputs	:	2 analog outputs 4-20 mA oder 0-5 V, isolated 2 digital outputs max. 80 VDC/30 mA 6 relayss, max. 250 VAC / 6 A RS232 or RS485 Voltage output 24 VDC / 50 mA and 12 VDC
Inputs	:	2 analog inputs 4-20 mA, isolated 4 digital inputs 1,3 VDC / 2 mA, optically isolated
Display function	:	8 lines for level, flow, total, volume, distance, temperature, pH or pressure
Data logger	:	40000 data records

## Mobile flow measurement in open channels

### VHQ 500-SP

The portable VHQ 500-SP is designed to measure flow in sanitary and storm sewers. The unit is self-contained and battery powered which makes it ideal for temporary flow measurement in sewer channels to determine discharge pipe examination or infiltration data and waste loads during dry weather conditions. Evaluation software for reports and graphic charts is available.



W	:	150 – 1000 mm
DN	:	150 – 1000mm
Flow range	:	v 0,1 – 9 m/s H 0 – 2540 mm
Accuracy	:	±5%
Memory	:	256 KB (25.000 Data records)
Signal outputs	:	2 x 0/4 – 20 mA
Display	:	v, H, Q and volume V Report and graphic
2 pulse outputs, freely programmable		
RS 232 serial port		
Data evaluation software reports and graphics		
Power supply	:	12 V DC (battery) or 230 V AC, 50/60 Hz