

Permanent ultrasonic wastewater flow meter

## **FLUXUS<sup>®</sup> WW – Efficiency in monitoring wastewater flows**

Easy retrofit, no maintenance costs,  
outstanding performance

Very low installation costs

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Maintenance-free

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Non-intrusive

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Measures fluids with gas  
or solid content of up to 10%

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Suitable for disturbed  
flow profiles



**FLEXIM**

*when measuring matters*





## FLUXUS® WW

### For monitoring pump efficiency, controlling flow rates, and managing heavy rainfall events

Operators of sewage networks and treatment plants are striving to **improve the energy efficiency** of their systems. With pumps consuming a large amount of electrical energy, there is a strong demand to monitor and control the flow in pumping stations more accurately.

A further reason to equip pumping stations with flow meters is to be able to **react effectively in the event of heavy rainfall**. In such cases sewage levels at pumping stations can rapidly reach critical levels and operators need to know exactly how much each pump in their system is transporting in order to take appropriate action.

The FLUXUS® WW is the ideal flow meter for retrofitting at pumping stations and treatment plants. It is installed without pipe modification or intrusion, is maintenance-free and delivers accurate and reliable flow measurements.

### Cost-efficient retrofitting

The FLUXUS® WW clamp-on ultrasonic flow meter is **installed without process interruption** or the need to carry out any work on the pipe itself. In pumping stations the installation conditions are often far from perfect, with a lack of straight pipe lengths and proximity to the pump. To **compensate for flow profile disturbances** the transmitter of the FLUXUS® WW series can be equipped with a second pair of transducers. This averages out the effects of crossflow and delivers a more repeatable measurement.

For installations in wet wells and other locations with potentially explosive atmospheres, transducers with **ATEX Zone 1 approval and IP68 protection** can be supplied.







## Efficiency in flow monitoring

### Permanently drift-free

The chemical composition of wastewater promotes the formation of scaling and fat deposits. Due to its higher solid content, especially sand, wastewater can also be abrasive. The clamp-on ultrasonic transducers of the FLUXUS® WW series, however, are **not impaired by scaling, fat deposits or abrasion** and therefore the measurements **remain permanently drift-free**.

Precisely matched piezo-transducers and an advanced factory calibration further contribute to the accuracy and long-term stability of the instrument. FLEXIM incorporates temperature sensors into every one of their ultrasonic transducers to compensate ambient temperature variations and ensure **unrivaled measurement repeatability**.

### Outstanding performance

The advanced signal evaluation and noise reduction technology of the FLUXUS® WW makes it capable of **measuring fluids with high gas or solid content** (up to 10% in volume), such as return activated sludge (RAS). The FLUXUS® WW also measures flow in large PCCP or GRP pipes, which are composed of several layers of material and can have wall thicknesses of several centimeters.

The outstanding performance and efficiency of the FLUXUS® WW is made complete by an extensive set of diagnostic and evaluation functions. Contact your local FLEXIM support office for more details.



# FLEXIM

More than 25 years of experience  
in non-invasive ultrasonic flow measurement



<b>Product variant:</b>	<b>FLUXUS® WW</b>
<b>Pipe diameter range:</b>	up to 6500 mm
<b>Pipe material:</b>	All
<b>Media:</b>	Water / Wastewater
<b>Solid or gas content:</b>	up to 10 % in volume
<b>Flow velocity:</b>	0.01... 25 m/s
<b>Accuracy:</b>	± 0.5% of reading ± 0.01 m/s (field calibrated) ± 1.2% of reading ± 0.01 m/s (out of the box - application dependent)
<b>Repeatability:</b>	0.15 % of reading ± 0.01 m/s
<b>Protection degree of transducers:</b>	IP68 and ATEX zone 1 and 2 optional
<b>Transmitter protection degree:</b>	IP65
<b>Number of flow measuring channels:</b>	2
<b>Communication options:</b>	RS232, Modbus RTU
<b>Data logger:</b>	> 100.000 values
<b>Outputs:</b>	2x Current, 3x Binary

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