

## ELECTROMAGNETIC FLOWMETER

PEM-1000

Please get in contact to discuss specific requirements

- Maximum static pressure 1,6MPa
- ATEX versions available on request
- Analog outputs: 4-20mA
- Communication interface: Modbus RTU / RS 485
- IP65 or IP67 (depending on model and configuration)



### PRODUCT DESCRIPTION

## HOW MAGNETIC FLOW METER SENSORS SUPPORT WASTEWATER MANAGEMENT

Magnetic flowmeters are essential tools in modern wastewater treatment because they **accurately measure the flow of conductive liquids** without any moving parts. This makes them highly reliable in challenging conditions like sewage, sludge, and industrial effluent.

#### Key Benefits in Wastewater Applications:

##### Accurate Flow Monitoring

- Measures influent and effluent flows for regulatory reporting and process control.
- Detects abnormal flow rates to identify leaks, blockages, or system inefficiencies.

##### Handles Dirty and Slurry Fluids

- Can measure raw sewage, sludge, or chemical-treated wastewater because solids do not affect the measurement.
- No moving parts to clog or wear out.

##### Supports Process Optimisation

- Enables precise dosing of chemicals such as coagulants, neutralisers, or disinfectants.
- Tracks return activated sludge (RAS) and waste activated sludge (WAS) flows to optimise biological treatment.

##### Regulatory Compliance

- Provides reliable flow data for discharge permits and environmental compliance reporting.
- Digital outputs (Modbus / 4–20 mA) integrate seamlessly with SCADA systems.

##### Low Maintenance and Long Service Life

- Non-intrusive, fully sealed design eliminates mechanical wear.
- This design also minimises downtime and lowers the lifetime operating costs.

## TECHNICAL DATA

Accuracy	0.5% of measured value
Approvals	CE, ATEX
Cable length	8 m
Conductivity	$\geq 20 \mu\text{S/cm}$
Flow Range	0.3 to 10 m/s
Installation position	Horizontal or vertical
IP class	IP67, IP66

<b>Material electrode</b>	Stainless steel, Hastelloy, Titanium
<b>Material of wetted parts</b>	Rubber, PTFE, Neoprene
<b>Pipe size</b>	DN10 to DN1000 / ANSI 0,5"... 40"
<b>Power supply</b>	24 V DC (standard), optionally 230 V AC
<b>Process connection</b>	Flanged (EN 1092-1)
<b>Signal outputs</b>	4–20 mA, Pulse/Frequency, Modbus RS-485
<b>Temperature ambient from</b>	-20 °C
<b>Temperature ambient to</b>	60 °C
<b>Temperature range</b>	Up to 80°C for rubber, Up to 130°C for PTFE