

# Flow Measurement

## Proline Promag Magnetic Flowmeters

Endress+Hauser are the world's largest manufacturer of Magnetic Flowmeters and the Proline Promag 50W is specifically designed for bidirectional flow measurement in water and wastewater applications:

- Drinking water
- Wastewater
- Sewage sludge

It economically provides a high degree of accuracy and reliability for a wide range of process conditions .

The Promag 50W has an operable flow range of over 1000:1 and incorporates E+H's easy to use interface with 3 operator push-buttons and LCD text display for programming, flow rate and totaliser.

### Other features and benefits

- liquids with min conductivity 5  $\mu\text{S}/\text{cm}$
- pipe sizes from 25-2000mm dia with hard rubber or polyurethane linings
- Current output for displaying flow
- Pulse output for totalising or status alarm. e.g; error messages, empty pipe detection, flow direction, limit values
- Optimum process control based on an accuracy of  $\pm 0.5\%$
- Deployment in potable water systems - lined measuring tubes with approved materials (KTW, NSF, WRC etc)



*Proline Promag 50W Flowmeter*

- Flange process connections standard
- Deployment in difficult conditions (e.g. in shafts, vibrations or permanently under water) - the IP68 sensor can be installed separate from the transmitter
- Service-friendly - HART, FieldTool and FieldCheck provide support right down to device verification without the need for sensor removal

## Prosonic S Level Measurement and for Flow in Open Channels / Weirs

Designed for heavy duty flow and level measurement applications, Prosonic S incorporates hermetically welded ultrasonic sensors, pre-programmed channel and weir configurations as well as pump control function.

It is perfectly suited for Rake / Pump control in WWTPs or for flow measurement in open channels and manholes, with up to 2 sensors.



*Prosonic S: 5 Sensor models and 2 Transmitter housing options*

The FMU90 Transmitter is available as top-hat rail mounting or in a robust IP66 field housing. Operation is easy via the menu-guided display or the supplied ToF Tool operating programme.

Commissioning is simple and safe with automatic sensor detection. The on-site Envelope Curve enables easy diagnosis. Outputs include up to two 4-20mA (HART), Profibus DP and 1, 3 or 6 relays. Five IP68 rated Sensor models are available with operating ranges up to 25m in liquids and 70m in bulk solids.

## T-trend Flow monitor for liquid and gas



*Recent T-trend installation*

T-trend employs thermal technology as a well established operating principle for the flow monitoring of Liquids and Gases.

It is suitable for nominal pipe diameters DN25 to DN1000, has a wide dynamic range and is available with a wide selection of Process Connections.

As there are no moving parts, maintenance requirements are minimal.

Typical water treatment applications:

- Status indication of valves in water distribution systems
- Chemical dosing
- Monitoring Air to aeration basins

## More Flowmeter information?

Circle Enquiry No:  
 Promag 50W: 910  
 Prosonic S: 911  
 T-trend: 912  
 Contact: Chris Gailer

## Typical Level Measurement Applications



*Prosonic Ultrasonic System with Foundation Fieldbus*



*Levelflex Guided Radar in Activated Sludge Reactor*



*Pump Station Level Measurement with Ultrasonic (in orange pipe)*