

# ProcessMaster Electromagnetic Flowmeter

The first choice for industrial applications



ABB Instrumentation



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## ProcessMaster

The perfect balance of power,  
performance, flexibility and control  
from **The Masters of Flow**





**Unrivalled in its scope and applications expertise, ABB offers the world's most comprehensive range of flow measurement products. The FlowMaster family of products is unsurpassed in the number of proven measurement techniques, variety of models and scope of application.**

Getting the best levels of efficiency and performance from your production process requires reliable, accurate instrumentation. ProcessMaster delivers the power to solve your most demanding process applications enabling previously unattainable operational and financial benefits.

Delivering value in sectors as diverse as chemical, power, oil & gas, pulp & paper and metals & mining, ProcessMaster is the ultimate flow solution for any process application.

Proven to be tough, reliable and incredibly easy to work with, ProcessMaster saves you time and money - at every stage of the lifecycle. Whatever and wherever the application, ProcessMaster's intelligent design, state-of-the-art technology and advanced features work harder and smarter to make your operations more cost effective.

ProcessMaster delivers more than reliable and accurate measuring values. When integrated with an asset management solution such as ABB's Asset Master, the instrument plays a key role in maximizing asset optimization.

**See how the operational and business benefits stack up...**

# The first choice for all industrial applications

ProcessMaster's modular design offers the industry's widest range of liners, electrodes and sizes to meet the needs of even the most demanding applications. Whether an integral, remote or pipe mounted installation is required, a configurable common electronics platform provides the best tailor-made solution.



## Superior control through advanced sensor design

Revolutionary self-cleaning and double sealed electrodes enhance reliability and performance.

Using a higher excitation frequency combined with advanced filtering, ProcessMaster improves measurement accuracy by reducing fluid and electrode noise. This results in a better product quality and higher reliability.

High temperature design in combination with a reinforced PFA liner improves vacuum stability, prevents potential liner deformation and makes ProcessMaster a perfect fit for all hot-fluid applications.

Industry optimized linings such as hard rubber, soft rubber, PTFE, ETFE and PFA ensure resistance to abrasion and chemicals.

ProcessMaster offers an IP 68 (NEMA 4X) optimized sensor design.

## Powerful and flexible transmitter

All product versions utilize a common electronics cartridge to lower inventory costs and spare parts. This same cartridge can be deployed in integral and remote installations - including hazardous area locations - and features active/passive current and pulsed outputs. Standard HART protocol enables online modification and monitoring of parameters.

The backlit, graphical display can be easily rotated through 270° without the need for any tools, allowing field teams to customize the display that best fits their needs. "Through-the-glass" control allows local operator interface to input short, quick data for all user specific parameters.

The universal ABB Human Machine Interface (HMI) simplifies operation, maintenance and training; thereby reducing cost of ownership and providing one common user experience.



## Intuitive navigation and configuration

The user-friendly interface allows quick and simple data entry for all process parameters. “Easy Setup” guides the operator step by step through the menu to set parameters as fast as possible. With the softkey functionality, the configuration is as simple as using a mobile phone.



## Speed, ease and security in the field

Advanced data storage inside the sensor eliminates the need to match sensor and transmitter in the field. The on-board sensor memory eliminates the possible problems associated with pluggable data memory modules.

On initial installation, the self-configuration sequence automatically replicates all data into the transmitter eliminating the opportunity for errors and leading to increased speed of start up. Redundant storage of data in both the sensor and the transmitter memory is continually updated during all operations to ensure total integrity of the measurement.

Easy access to wiring also minimizes the time for problem solving in the field.

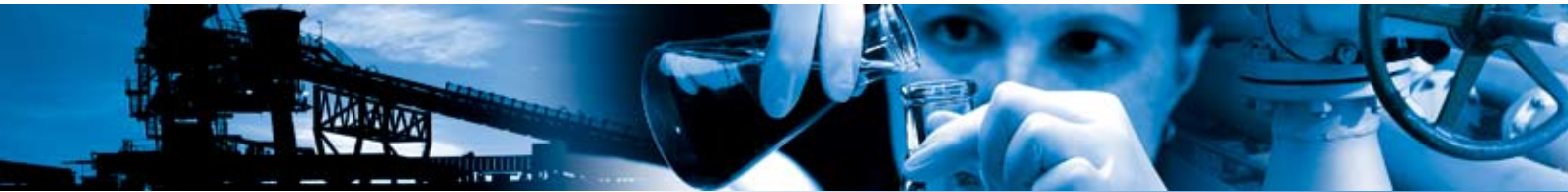
## Detailed diagnostics for rapid decision making

ProcessMaster monitors its own operability and your process. Using the infrared service port, future enhanced diagnostics can be inserted without interrupting operations.

ProcessMaster is proven to be robust and reliable, with unmatched diagnostic capabilities providing the right information to keep the process up and running. In accordance with NAMUR NE107, alarms and warnings are classified with the status classifications such as ‘maintenance required,’ ‘function check,’ ‘failure’ and ‘outside of specification.’

## Attention to the smallest technical detail delivers big operational benefits

ABB's ProcessMaster sets the standard for industrial flow measurement and management applications. Leveraging advanced measuring techniques, ProcessMaster delivers the power to solve your most demanding applications, enabling you to achieve and surpass your operational and financial targets.



## The perfect balance of **power, performance, flexibility and control**

For ProcessMaster, powerful doesn't mean complicated. Take advantage of simple installation, commissioning, configuration and maintenance – start saving time and money from day one.



### Service tools for use with the meter

To help validate and optimize the meter's performance, an optional sensor simulator is available giving a reference that is not effected by conditions at the measuring location.



An infrared service port also makes it easy for recorded data to be exported for further analysis and evaluation. This allows critical factors to be identified early and corrective actions to be taken quickly. In this way, the process can be optimized for greater productivity and less downtime.



## Key data

|                      |   |
|----------------------|---|
| Meter size:          | DN 3...2000 (1/10 ... 80")  |
| Process connections: | Flange acc. to DIN, ASME, JIS and EN  |
| Liners:              | Hard rubber, soft rubber, PTFE, PFA and ETFE  |
| Type of protection:  | IP 67 or IP 68  |
| Signal in/outputs:   | Current output 4...20 mA active or passive<br>Pulse output active or passive<br>Contact Output<br>Contact Input |
| Communication:       | HART (Standard)   |



## Now the best in class is even better

Advanced signal processing provides outstanding measurement performance with long-term stability. This results in low cost of ownership throughout the product life cycle.

ProcessMaster helps cut costs, without reducing functionality. As you have come to expect from ABB, this innovative product is fully loaded with technical advances that each deliver a clear business and performance benefit. In fact, ProcessMaster doesn't just plug the gaps left by competitive products, it is simply the best process flowmetering solution available today.

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ABB is a leader in power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact. The ABB Group of companies operates in around 100 countries and employs about 111,000 people.

**[www.abb.com/flow](http://www.abb.com/flow)**

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