Electromagnetic flowmeter
ProcessMaster FEP300/500
The first choice for
the process industry

ProcessMaster
For all applications

ProcessMaster is the perfect flowmeter for various industries: chemical, power, water and waste water, oil and gas, pulp and paper, metal, and machine construction.

Overview of the key features

Nominal diameter	DN 3…DN 2000 (1/10…80")
Nominal pressure	PN 10…PN 100, Cl 150…Cl 600
Process connection	Flanges in accordance with DIN/EN, ASME, JIS and others
Lining	Hard rubber, soft rubber, PTFE, PFA, ETFE
Protection class	IP 67 or IP 68
Fluid temperature	Up to 180 °C (356 °F)
Ex approvals	ATEX, IEC Zone 1 and Zone 2, FM, CSA Div 1 and Div 2, NEPSI Zone 1 and Zone 2, GOST
Inputs/outputs	Analog output (4…20 mA), pulse output, contact input/output
Communication	HART protocol (standard) PROFIBUS PA FOUNDATION Fieldbus
Verification tool	"ScanMaster" software

The ProcessMaster family
Tailored to your needs

ProcessMaster is available in two series: ProcessMaster FEP300 with basic functionality and ProcessMaster FEP500 with enhanced functions and options.

ProcessMaster FEP300 – accurate flow measurement easily mastered

The ProcessMaster FEP300 flowmeter provides a range of sizes, process connections, approvals and communication protocols.

– Accuracy: 0.4% of rate, optional: 0.2% of rate
– Diagnostic functions: detection of empty and partially filled pipes

ProcessMaster FEP500 – enhanced flow measurement functionality

– Accuracy: 0.3% of rate, optional: 0.2% of rate
– Diagnostic functions
  Detection and monitoring of partially filled or empty pipes, gas bubbles, deposits on electrodes, conductivity and sensor temperature
– Additional functions and options
  - Fingerprint
  - Trend data recording
  - Grounding check
  - Batch function
  - Two measuring ranges
  - Sensor designs for the most demanding applications

Fieldbus
Digital communication

Reduced costs through improved monitoring

Getting more information

Designed for digital communication via HART, PROFIBUS PA or FOUNDATION Fieldbus, ProcessMaster FEP300 and ProcessMaster FEP500 provide an excellent overview of the process. Easy access to all status information is obtained via the flowmeter's advanced DTM (Device Type Manager). Graphical representations of the measuring values allow the operator to immediately recognize deviations. When a limit value is exceeded, an alarm is signaled. The configuration of the meter is archived for documentation purposes. By transferring this configuration to comparable meters, costs can be saved.

ProcessMaster FEP500
Diagnostics made easy

Detecting electrode coating, gas bubbles, partial filling and conductivity changes

Convincing advantages

Using its advanced diagnostic functions, ProcessMaster FEP500 monitors its own operability and the process. Monitoring functions for the conductivity and sensor temperature were integrated. The diagnostic data can be read out for analysis via the DTM thus allowing to detect critical conditions early and take the appropriate precautions in order to increase the productivity and avoid downtimes.

Fingerprint – the reference in the sensor

Alterations like coating on the electrodes or a changed sensor coil resistance are identified by comparison with a reference – the fingerprint. One fingerprint is made in factory, a second in the commissioning phase. At any time during operation, a fingerprint representing the current state can be made and compared with the data of existing fingerprints. The recognition of changes permits to achieve maximum safety in the process.

ScanMaster
The verification tool

Checking ProcessMaster FEP300/500 and documenting the test results

Safe and easy to operate operation

ScanMaster verifies the functionality of the transmitter inputs and outputs, without the need to deinstall the device. The sensor integrity can be checked without deinstallation as well. Gradual changes are recorded as trends by ProcessMaster FEP500 and read out via ScanMaster, enabling the operator to graphically view the data and cyclically monitor the measured values. A very simple way to check the installed device for correct functioning. The determined test results are stored in a database and can be retrieved and printed at any time.

ProcessMaster FEP500
Ready for any challenge

Performance and accuracy for your industry

Grounding check – to make sure the instrument is grounded correctly

One of the most common causes of failures is insufficient grounding. Help is at hand in the form of the new grounding check functionality implemented in the ProcessMaster FEP500. This feature helps to prevent already in the commissioning phase the occurrence of such failures.

Sensor design for demanding measuring tasks

Abrasive fluids can considerably reduce the sensor's service life. With its especially robust and abrasion-resistant sensor lining made of ceramic carbide the ProcessMaster FEP500 offers a solution for this challenge.

Improved performance

The optimized sensor and transmitter of the ProcessMaster FEP500 provide for reliable and accurate flow measurement even under difficult conditions.

Fill function

ProcessMaster FEP500 features a presetting counter and overrun correction and is suitable for fill processes with filling times greater than 3 seconds.

Ceramic carbide lining

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Note:

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for a better world™

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