Ultrasonic Flowmeter

Flowmax ® 4000i - ULTRA LOW FLOW -

MIB GmbH
Messtechnik & Industrieberatung

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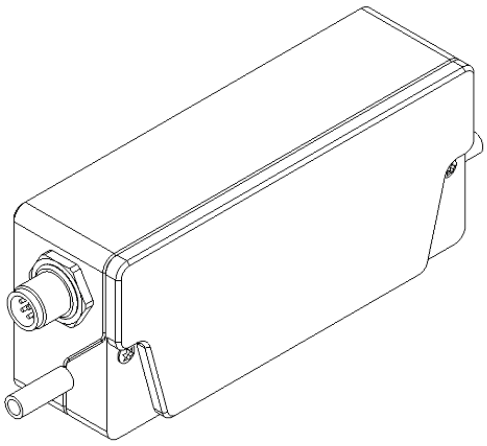


Flowmax® 4000i is a flow meter calculating the volume flow rate of liquids. Based on the ultrasonic technology Flowmax® is able to measure conductive and non-conductive liquids contactfree.

The extremely compact device design includes a dead-space-free PFA measurement tube, sensitive sensors, and state-of-the-art microelectronics. Thanks to a design with no moving parts, Flowmax® 4000i is completely wear-free.

Due to its technical characteristics, Flowmax® can measure various types of liquids, including aggressive and/or toxic acids and alkalis, DI-water, aqueous solutions, concentrates in the Food + Pharma sector as well as body care liquids and cosmetics.

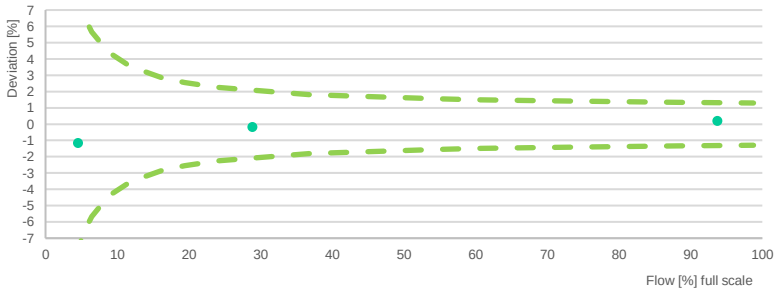
Flowmax® is distinguished by its high measurement accuracy and repeatability. An empty pipe detection is integrated. The calculated flow is provided with a response time of a few milliseconds.

Housing		
Material tube housing nut, sleeve	PFA PP PFA	
Tube size	⅛“	¼“
Measuring range [ml/min]	2.5-1200	10-6000
Process connection	Tube ends, Pillar S300 union ends, Nexus connection	
Dimensions L/W/H [mm]	163 (127 housing) / 38 / 56	
[inch]	6.4 (5 housing) / 1.5 / 2.2	
Weight	310 g	
Protection class	IP65	
Medium temperature [°C]	0 … 60	
Pressure max. [bar]	6	

Electronics	
Power supply	24VDC, approx. 3.6W
Electrical connection	5- or 8-pin plug; stainless steel or plastic
Input[1]	1 digital input – usable for dosing start
Outputs[1]	2 digital outputs, configurable as puls or empty pipe alarm, 1 analog output, configurable as current output 0/4-20mA, RS485 - data interface
Max. error of measurement	± 2% o.r. ± 0.15% f.s. (o.r. = of reading; f.s. = full scale), Option with calibration ± 1% o.r. ± 0.15% f.s. Reference conditions (VDI/VDE 2642)
Repeatability	≤ 0.5%

[1] The variety of outputs / input depends on the plug selection.

Additional selectable options
Calibration (3 or 8 points) incl. certificate
Output of the speed of sound
Communication via Modbus



Example:
typical measuring points of a 3-point calibrated Flowmax in error graph according definitions

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Preliminary version - Technical subjects to be changed!