# Ultrasonic Flowmeter

Flowmax ® 44i

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Flowmax 44i is a flow meter calculating the volume flow of liquids. Based on the ultrasonic technology Flowmax 44i is able to measure conductive and non-conductive liquids contactfree. Flowmax has no moving parts and is absolutely free of wear. The design of the pipe minimizes dead space over the whole geometry. All parts having contact to the medium are PPSU. Thanks to its technical properties Flowmax is able to measure all kinds of liquids like: DI-Water, Body care liquids, Cosmetics, liquid food, and also aggressive and/or toxic acids and alkalis. Flowmax is characterized by its high measurement accuracy and repeatability. Empty pipe detection is integrated. Optionally Flowmax have a PID controller function. The calculated flow is provided with a response rate of a few milliseconds on the outputs.

Flowmax has by default a preset quantity counter. The start signal can optionally be fed from the outside. A control signal for activation of the pump or valve control is also standard.

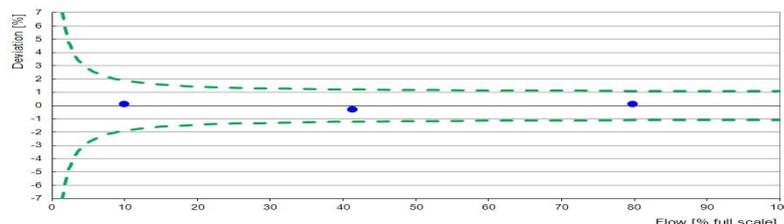Flowmax 44i is suitable for operation with piston diaphragm and peristaltic pumps.

## Housing

| | | | | |
|---|---|---|---|---|
| Material | PPSU | | | |
| Protection class | IP67 | | | |
| Medium temperature [°C] | -10°…80°C | | | |
| Measuring range [l/min] | 0.3 - 21 | 0.9 - 36 | 3.5 - 60 | 5.0 - 240 |
| Nominal diameter [DN] | 10 | 15 | 20 | 25 |
| Nominal pressure max. [bar] | 16 | 16 | 10 | 10 |
| Process connection | | | | |
| outside thread NPT or G | 1/2" | 3/4" | 1" | 1 ¼" |
| BKS-Clamp DIN 11864 Form A | 34 mm | 34 mm | 50.5 mm | 50.5 mm |
| Dimensions L/W/H [mm] | 150/85/90 | 150/85/90 | 160/85/105 | 170/85/105 |
| Weight | 350 g | 350 g | 450 g | 450 g |

## Electronics

| | |
|---|---|
| Power supply | 24VDC, ca. 3.6W |
| Electrical connection | 5 or 8-pin plug |
| Display (option) | Simultaneous display of volume flow, quantity, bar graph, lighted |
| Input | 1 digital input, usable for dosing start or counter reset |
| Outputs | 2 digital output, configurable as pulse output or empty pipe alarm, Current output configurable 0/4-20mA, RS485-data interface. |
| Max. error of measurement | ±2%o.r. ±3mm/s (o.r. = of reading), option ±1%o.r. ±3mm/s Reference conditions (VDI/VDE 2642) |
| Repeatability | ≤ 0.5% |

All flow meter parameters are freely configurable by using the display or FlowCon. FlowCon is not part of the delivery of Flowmax 44i. It can be ordered separately.

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



Example: Measuring points of a calibrated Flowmax in error graph according definitions

Further information:

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