# Ultrasonic Flowmeter

Flowmax ® 242i



Flowmax 242i is a flow meter calculating the volume flow of liquids. Based on the ultrasonic technology Flowmax 242i 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 PP. It has the USP Class VI approval and is resistant to gamma irradiation and is suitable for single-use –applications.

Thanks to its technical properties Flowmax is able to measure all kinds of liquids like: DI-Water, Bio-processing liquids, Cosmetics, liquid food, and also aggressive media. Flowmax is characterized by its high measurement accuracy and repeatability. Empty pipe detection is integrated. The calculated flow is provided with a response rate of a few milliseconds on the outputs.

Flowmax 242i is suitable for operation with piston diaphragm and peristaltic pumps. Thus even lower flow rates can be measured for pulsating flow.

The measuring system Flowmax 242i consists of measuring tube (Flowmax 242iM), dongle (Flowmax 242iD) and evaluation (Flowmax 242iE).

The calibration data of the measuring tube are deposited in the dongle. This is plugged into the electronics, so that the evaluation can be accessed on the measuring tube associated calibration. This ensures that the evaluation is always working with the correct measuring tube data.

#### Housing Measuring Pipe (Flowmax 242iM)

Material PP (Polypropylene)

approvals USP Class VI, FDA, BSE/TSE free, resistant to gamma irradiation

Protection class IP65
Medium temperature [°C] 0°...50°C

Measuring range [I/min]

with continuous flow [l/min]	0.015-1	0.024-3	0.09-6	0.3-24
pulsating flow measurement is possible from 0.5 l/h (=0.008l/min)				
Nominal diameter [DN]	3	5	7	10
Nominal pressure max. [bar]	7	7	7	7
Process connection 11864 BKS-A Clamp	DN10	DN10	DN10	DN10
Dimensions L/W/H [mm]	144/96/42	144/96/42	144/96/42	148/100/42
Weight [g]	400	400	400	430

### Dongle (Flowmax 242iD)

Connection

## Electronics (Flowmax 242iE)

Material Housing Power supply Electrical connection Display (option) Input Outputs

Max error of measurement

### Repeatability

All flow meter parameters are freely configurable by using the display

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

# Further information: MIB GmbH

Bahnhofstr. 35, D-79206 Breisach Tel. 0049 / (0) 7667 – 20 777 90 Fax: 0049 / (0) 7667 – 20 777 99 Mail: info@mib-gmbh.com Web: www.flowmax.de Plug 5 pins

with fix installed 2m cable for connection to the measuring pipe  $\ensuremath{\mathsf{PPSU}}$ 

18...30VDC, ca. 3.6W

5 or 8-pin plug

Simultaneous display of volume flow, quantity, bar graph, lighted

1 digital input, usable for dosing start or counter reset

2 digital output, configurable as pulse output or empty pipe alarm,

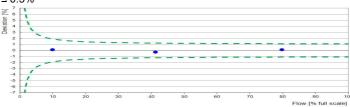
Current output configurable 0/4-20mA,

RS485-data interface.

 $\pm 2\%$ o.r.  $\pm 3$ mm/s (o.r. = of reading), option  $\pm 1\%$ o.r.  $\pm 3$ mm/s

Reference conditions (VDI/VDE 2642)

≤ 0.5%



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

