

# Ultrasonic Flowmeter

Flowmax® 242i Generation 3.0

## Single-Use suitable



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 wetted parts are made of PELD. It has the USP Class VI approval and is resistant to gamma irradiation and is suitable for single-use applications.

Due to its technical properties Flowmax is able to measure all kinds of liquids like: demineralized-Water, Bio-processing liquids, Cosmetics, liquid food, and also aggressive media. Flowmax is characterized by its high response time, 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 a calibrated measuring pipe (Flowmax 242iM) and evaluation unit (Flowmax 242iE) incl. 2m cable.

SI 008E/FM242i/03.23

The calibration data of the measuring pipe is deposited in the measuring pipe. After coupling, it will **automatically** be transferred from the measuring pipe to the electronics, so that the evaluation unit can access the calibration data associated with the measuring pipe. This ensures that the evaluation is always working with the correct **measuring pipe data**.

### Specifications measuring pipe (Flowmax 242iM)

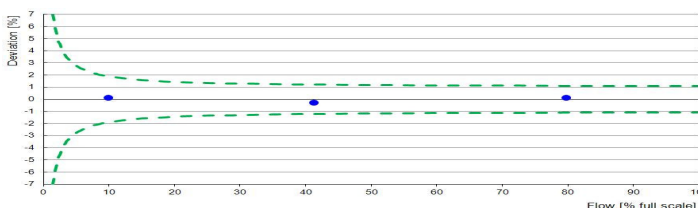
Material	PELD (Polyethylen Low-Density)		
Approvals	USP Class VI, FDA, BSE/TSE free, resistant to gamma irradiation		
Protection class	IP65		
Medium temperature [°C]	0° ... 50°C		
Measuring range [l/min]			
with continuous flow [l/min]	0.012-1.5	0.024-3	0.09-6
Nominal diameter [DN]	3	5	7
Nominal pressure	PN5	PN5	PN5
Process connection Clamp D25	DIN 32676 : 2009-05 Series A DN8 (all nominal sizes)		
Dimensions L/W/H [mm]	170/96/46	170/96/46	170/96/46
Weight [g]	190	190	190

### Electronics (Flowmax 242iE)

Material Housing	with fix installed 2m cable (PUR/PVC) for connection to the measuring pipe
Power supply	PPSU
Electrical connection	18 ... 30VDC, ca. 3.6W
Display (option)	5 or 8-pin plug
Input	Simultaneous display of volume flow, quantity, bar graph, lighted
Outputs	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.
Max. error of measurement	±2%o.r. ±0.15% f.s. (o.r. = of reading, f.s. = full scale),
Repeatability	option ±1%o.r. ±0.15% f.s., Reference conditions (VDI/VDE 2642)
	≤ 0.5%

All flow meter parameters are freely configurable by using the display.

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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Technical subjects to be changed!

