Ultrasonic Flowmeter

Flowmax® 54i

SI 004E/FM54i/04.21

Flowmax 54i is a flow meter calculating the volume flow of liquids. Based on the ultrasonic technology Flowmax 54i 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 PE-HD. 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 54i is suitable for operation with piston diaphragm and peristaltic pumps.

Housing

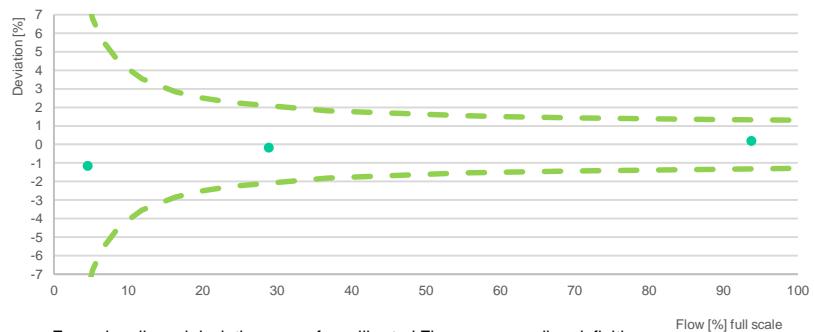|				
Material	PE-HD (Polyethylene)			
Protection class	IP65			
Medium temperature [°C]	0 … 50			
Nominal diameter [DN]	25	32	40	50
Measuring range [l/min]	5 … 180	9 … 300	18 … 480	36 … 900
Nominal pressure	PN10	PN10	PN10	PN10
Process connection GF-thread	G1 ½"	G2"	G2 ¼"	G2 ¾"
Dimensions L/W/H [mm]	220/73/116	220/80/120	220/84/122	220/95/131
Weight [kg]	1.0	1.1	1.1	1.3

Electronics

Power supply	24VDC, ca. 3.6W
Electrical connection	5 or 8-pin plug
Display	Simultaneous display of volume flow, quantity, bar graph, lighted
Input	1 digital input, usable for dosing start
Outputs	2 digital outputs, configurable as pulse output or empty pipe alarm, Current output configurable 0/4 … 20mA, RS485-data interface.
Max. error of measurement	± 2% o.r. ± 0.3% f.s. (o.r. = of reading, f.s. = full scale) option ± 1% o.r. ± 0.3% f.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 54i. It can be ordered separately.

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

Example: allowed deviation area of a calibrated Flowmax according definitions

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Technical subjects to be changed!