



## FlowGuard® FT407

# Magnetic inductive flow meter

*Item no. 1317/[Diameter]/ [Process connection]/  
[Display]/ [Output signal]*

### Description

The FlowGuard® FT407 magnetic inductive flow meter is used for bidirectional flow measurement of liquid media, from drinking water to chemically aggressive media, in a temperature range up to 70°C.

In addition to a pulse output, the sensor has a 4 ... 20 mA analog output for transmitting the volume flow and quantity measurement. The built-in LCD and two status LEDs show the sensor status at all times. The process connection can be designed as a thread or clamp according to DIN 32676/ DIN 11851.

### Product highlights

- 900 measurements per second enable precise dosing processes
- Meets the highest demands for measurement accuracy (2% of the measured value) and repeatability (0.5%)
- Can be used at media temperatures up to 70°C
- Wide measuring range from 0.02 m³/hr to 25 m³/h depending on pipe diameter (DN4...DN32)
- IO-Link and Bluetooth communication possible
- 2 freely configurable outputs
- High operating convenience thanks to integrated LCD
- Compact design for use in small installation spaces

### Areas

The FlowGuard® FT407 is used in a wide range of industrial applications. With 900 measurements per second and a repeat accuracy of 0.5%, it is particularly suitable for dosing processes, e.g. in the pharmaceutical, food, and chemical industries. The compact design of the FlowGuard® FT407 allows it to be used in the smallest of spaces. Communication via IO-Link or Bluetooth makes installation and commissioning even more convenient.

## General information

Areas of application	Liquids (min. conductivity 20 µS/cm)
Device type	Magnetic inductive flow meter
Device design	Compact device
Flow measurement range	0.2 ... 10 m/s Bidirectional measurement
Flow measurement accuracy	1% at 1 ... 10 m/s (repeatability 0.5%) 2% at 0.2 ... 1 m/s (repeatability 0.5%)
Flow medium temperature	Max. 70°C (higher temperatures on request)
Pressure	PN25
Display	LCD display (optional)
Protection class of evaluation unit	IP65
Protection class sensor	IP65
Special	Up to 90% ambient humidity

## Outputs/inputs

Output	Pulse output, analog log output, digital output
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Specification Analog signal	4 ... 20mA Pulse output/current switch
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Specification Digital output	IO-Link
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## Mechanical data

Diameter	DN04 ...32 (other diameters available on request)
Process connection	Thread (EN ISO 228-1) Milk pipe fitting DIN11851 Clamp DIN32676
Pipe cladding material	PVDF
Material of the evaluation unit	Stainless steel or steel ST37 (coated)
Electrode material	CrNi steel DIN 1.4571

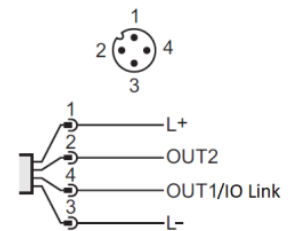
## Electrical

Power supply	24 VAC/ VDC overload protection
Tolerance Operating voltage	± 15
Electrical connection	M12 connector, 4-pin
Power consumption max.	3 VA

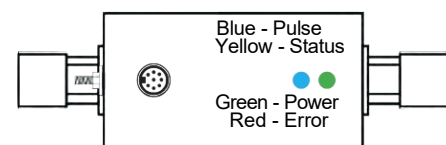
## Electrical connection

Standard cable connection

PIN 1 - +Vdd (24VDC±15%)  
PIN 2 – configurable output OUT2  
(PNP open collector- Positive potential)  
PIN 3 - GND  
PIN 4 - IO-LINK/ configurable output OUT1



## Display



LED1	LED2	Description	Current output
● green	-	The meter is in good order and the flow is null or negative	4mA
● green	● blue LED is flashing	The meter is in good order and the flow is positive where the blue LED is indicating the transmission of volumetric pulses	4÷20mA
● red LED	-	Meter is out of order, service necessary	<4mA
● red LED	● yellow LED	Meter is temporarily beyond parameters	<4mA
-	-	Supply voltage error	-

## Order number

Item number 1317/

### Diameter

See table DN04 ... 32  
"Available measuring ranges"

### Process connection

Thread (EN ISO 228-1) G  
Milk pipe screw M  
connection (DIN11851)  
Clamp (DIN32676) C

### Display

with out Display O  
LCD L  
Bluetooth B

### Output signal

IO-Link+ Pulse output 1  
IO-Link+ Analog output 2  
(4...20 mA)

*Table with flow ranges for individual DN sizes*

Diameter nominal [mm]	Qmin [m3/h]	Qmax [m3/h]
DN 4	0.02	0.5
DN 6	0.03	1
DN 8	0.04	2
DN 10	0.06	3
DN 15	0.2	7
DN 20	0.25	10
DN 25	0,35	15
DN 32	0,6	25

Diameter nominal [mm]	Threaded connection	L1	L2	L3	W	H1	H2	H3	K	Compact flow meter weight (kg)
4	½"	161	97	16.5	49	80	70	32	17	1.2
6	½"	161	97	16.5	49	80	70	32	17	1.2
8	½"	161	97	16.5	49	80	70	32	17	1.2
10	½"	161	97	16.5	49	80	70	32	17	1.1
15	½"	161	97	16.5	49	80	70	32	17	1
20	¾"	161	97	16.5	49	80	70	32	22	1
25	1"	209	117	26,5	60	97	83	40	27	1,5
32	1 ¼"	209	117	26,5	70	97	83	40	36	2

## Basic device sizes

### Threaded design

