



sonico[®] NANO (metric)

Smart Water Meter



Your benefits

- Best in class accuracy and repeatability
Accurate low-flow measurements and ondemand leakage notification. Reduces nonrevenue water and scarcity water.
- Accurate measurements in all possible directions and installation conditions
High installation flexibility reduces installation costs.
- Integrated LoRaWAN and seamless data integration
Reduction of network initialization, maintenance, and meter reading costs.
- Over the air software update to upgrade new features or radio settings and to increase lifetime
Sustainable design and extendend product life time.

Applications

- Cold water supply systems (water temperature up to 50 °C) requiring reliable and accurate water consumption metering
- Reliable data communication on site (NFC) and integrated radio technology (RF) for mobile or fixed network / smart metering collection systems (AMR)

Properties

- Precise in any type of installation and flow conditions U0/D0
- Extremely low-pressure loss (down to only 0,1 bar)
- Highly resistant to overload flow rates, resistance to hydraulic shock and unaffected by magnetic fields
- Firmware updates or protocol changes over-the-air or over the NFC interface
- Automatic radio connection for 915MHz LoRaWAN
- infin.io back-end solution for data visualization and management
- Open standards and non-proprietary communication protocols
- GWF LIFE software app for local meter readings and configurations over NFC
- End-to-end AES-128 Bit data encryption
- Selectable simulation, standby or operation meter mode
- NFC pulse module for test bench maeasurements
- Robust and sustainable design mainly made of brass and glass
- Simple to recycle - no potted battery and electronics

Execution							
Nominal diameter	DN	Inch	¾	¾	1	1½	2
Operating pressure	MAP	bar	16	16	16	16	16
Maximum flow rate	Q _{max}	m³/h	6.8	6.8	11.3	34	34
Pressure loss		bar	0.011	0.017	0.017	0.017	0.017
Installation orientation			H, V, H/V				
Maximum register reading		m³/GAL	9 - digits				
Flow disturbance class			U0/D0				
Batteries			1 x integrated 3.6 DC lithium C battery				
IP rating			IP68				
Operating ambient temperature range		°C	-10 / +70				
Storage temperature range		°C	-25 / +70 (>35 max. 4 weeks)				
Battery life time			15, years ¹⁾				
Integrated LoRaWAN / 915 MHz			Default transmission interval: 1 hour SF10				
Sampling frequency			Up to 4Hz (1Hz by default)				

1) With default configurations

Display information

1. Volume unit indicator (digital)

2. Non-billing relevant lines

3. Volume

4. Tariff zone

5. Main flow direction (automatic set)

6. Radio connection status

7. Leakage indicator
8. Test mode information

9. Air in pipe icon

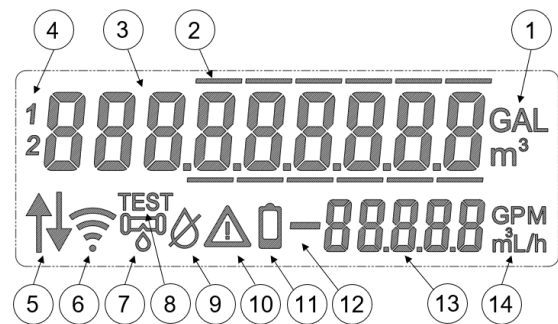
10. System alarm icon

11. Battery level symbol

12. Actual flow direction arrow

13. Flow rate

14. Flow rate unit indicator (digital)



The display is updated every second.

Configurable alerts

The following integrated alerts are displayed on the meter LCD and transmitted over the integrated radio or NFC interface.

Metrology alerts:

- Water leak
- Water burst
- Air in pipe
- Empty pipe
- Reverse flow over configured time or volume
- No flow over configured time or volume
- Tampering
- Ambient temperature too high or low
- Water temperature too high or low
- Low battery

Communication alerts:

- NFC error
- Invalid configuration

Internal data backup and security

The meter has a permanent memory, in which up to 4000 log's are saved. The data logging interval and content is configurable. In case the maximum possible iog information is required, the following log history periods result:

Log history period	Data logging interval
4 days	15 min
16 days	1 hour
400 days	1 day
20 years	1 month

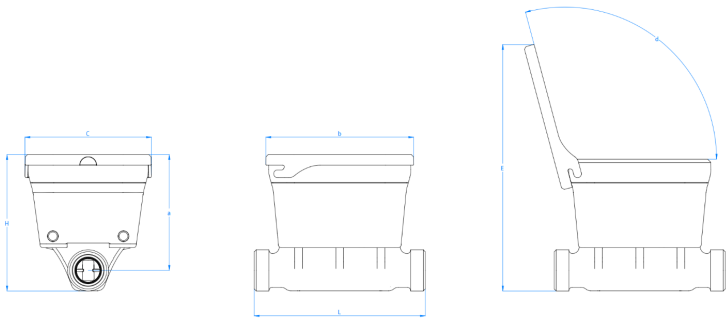
By default, each logging interval backup's the following data:

1. Cumulative, forward and reverse volume
2. All possible active alerts
3. Max. and min. flow rates incl. timestamp
4. Max. and min. temperatures incl. timestamp

The monthly/yearly log is written on the first day of the month/year, the daily log at midnight.

Dimensions and weight 3/4" - 2"

Size			¾"	¾"	1"	1½"	2"
Lay length	L	mm	130	190	273	324	300
Height	H	mm	94.5	94.5	94.5	94.5	94.5
Register length	b	mm	95	95	95	95	95
Register width	C	mm	81	81	81	81	81
Register height	a	mm	77	77	77	77	77
Height incl. lid	E	mm	165	165	165	165	165
Lid opening angle	d	°	105	105	105	105	105
Meter thread connection	NPSM	Inch	1	1	1¼	2	2½
Weight		kg	0.75	0.85	1	1.3	1.5



Regulatory and Standard Compliance

CE Design-examination Certificate in conformity with:

- > 2014/32/EU (MID) (2019)
- > OIML R49:2013 (2019)
- > EN-ISO 4064-1 to 5:2014(E) – Flow meters for cold potable water and hot water
- > EC Type Test Certificate TCM 142/24-5958 for cold water applications
- > Class E2 (EN-ISO 4064:2014)
- > Class M3 (EN-ISO 4064:2014)
- > Class M3 (Directive 2014/32/EU of 26 February 2014)
- > WELMEC 7.2
- > RED (2025)
- > OMS
- > UL2043

Drinking water approvals:

- > KTW / W270 (2019)
- > NSF-61 d.hot
- > ACS
- > WRAS

Materials and Sustainability

- Meter is made of fully recyclable materials for low CO2 footprint.
- Meter body made of lead-free eco brass.
- Mineral glass for high hygienic standard.
- Battery is connected by plug to electronics. Easy to be removed or replaced.
- Production, packaging and distribution with minimal CO2 footprint.