

# TOPAS SONIC

## Unique Free Flow IoT ready!

TOPAS SONIC is a new generation of high performances static cold water meter designed and optimized for the residential market and smart metering applications.

Based on a unique free pipe concept with a direct ultrasonic measurement, it provides superior stability of the measurement over time for accurate billing and monitoring of the water consumption at a minimum pressure drop.

Built as a native IoT smart meter, TOPAS SONIC integrates natively the latest communication interfaces for easy integration into AMR metering solutions. Qualified and certified with most stringent standards, TOPAS SONIC will provide utilities the best of ultrasonic metering technology.



### Product features

- › Low pressure drop < 0.1 bar
- › Very low starting flow
- › Performances: R 500 / Class 2
- › DN 15 to DN 50
- › Compact and robust housing
- › Tube material: Brass (UBA & 4MS listed)
- › Battery Powered, Lifetime up to 16 Years
- › Pulse or M-Bus wired Communication
- › Radio Communication wM-Bus or IoT communication with Sigfox / LoRa WAN
- › SVGW, DVGW, ACS drinking water Approval
- › MID2014/32/EU (ISO 4064)

### Customer benefits

- › Designed for robustness to dirt
- › Very high resistance to outdoor conditions
- › Accurate billing and monitoring enabled by a highly stable ultrasonic measurement over 16 Years lifetime
- › Reduction of Non-Revenue Water Losses
- › Real time data remote reading for easy billing and grid monitoring
- › Powerful data & event logger
- › Leakage detection
- › Reverse flow measurement
- › Frost protection warning

## Operating Conditions

Nominal pressure	PN 16
Protection Class	IP 68
Medium Temperature	0.1 – 50°C
Environment Temperature	1 – 70°C
Environment Class	B (Indoor Installation) / O (Outdoor Installation)
Mechanical Class	M1
Electromagnetical Class	E1

## Communication Interfaces

Pulse	Optocoupler, cable length 1.5 m
M-Bus	Power Supply via integrated battery, cable length 1.5 m
wM-Bus	434 MHz* or 868 MHz (OMS 3.0)
LoRa* / Sigfox*	868 MHz
NFC	Near Field Communication (for android devices)
LCD	10 Diggits

\*available in 2018

## Technical Measurement Data & Dimensions

Diameter	DN	mm	15	20	25	32	40	50
Maximum Flow	Q4	m <sup>3</sup> /h	3.125	5 / 7.5	12.5	12.5	20	31.25
Nominal Flow	Q3	m <sup>3</sup> /h	2.5	4 / 6	10	10	16	25
Transition Flow	Q2	l/h	8	32 / 19.2	32	32	51.2	80
Starting Flow		l/h	2.5	8 / 6	12	12	16	25
Minimum Flow	Q1	l/h	5	25 / 12	20	20	32	50
Meas. Range Q3/Q1	R		500	160 / 500	500	500	500	500
Length	L	mm	110 / 165	105 / 190 / 220	150 / 260	150 / 260	200 / 300	270 / 300
Height	H1	mm	77	77	77	77	77	77
Total Height max.	H	mm	98	98	98	101	107	115
Width	W	mm	76	76	76	76	76	76
Housing Length	L1	mm	87	87	87	87	99	99
Threads			G $\frac{3}{4}$ B	G1B	G1 $\frac{1}{4}$ B	G1 $\frac{1}{2}$ B	G2B	G2 $\frac{1}{2}$ B $\frac{3}{8}$ B

