RUBIN® SONIC

Ultrasonic water meter for networks

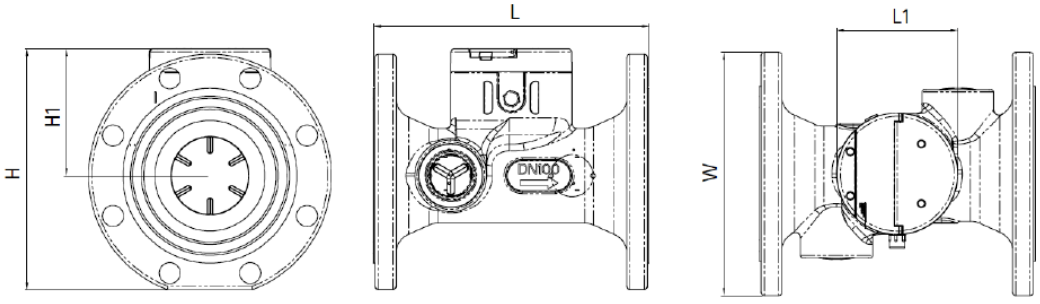
RUBIN® SONIC is a **precise** and **reliable** meter designed for **billing light industrial customers** and **monitoring district water networks**. Its advanced ultrasonic technology offers precise measurements at **all flow rates** being able to monitor **water losses**. RUBIN® SONIC is your best **hassle-free** companion for **agile** and **smart measuring**.

- ✓ Dual beam ultrasonic technology
- ✓ Low maintenance
- ✓ Extremely compact, integrated wireless communications
- ✓ Simple data collection, powerful integrated datalogger
- ✓ Very low starting flow, monitor water losses
- ✓ Free bore hole diameter, insensitive to harsh water conditions
- ✓ Very low pressure loss
- ✓ Certified bi-directional flow measurement, dual pulse output

Technical datasheet

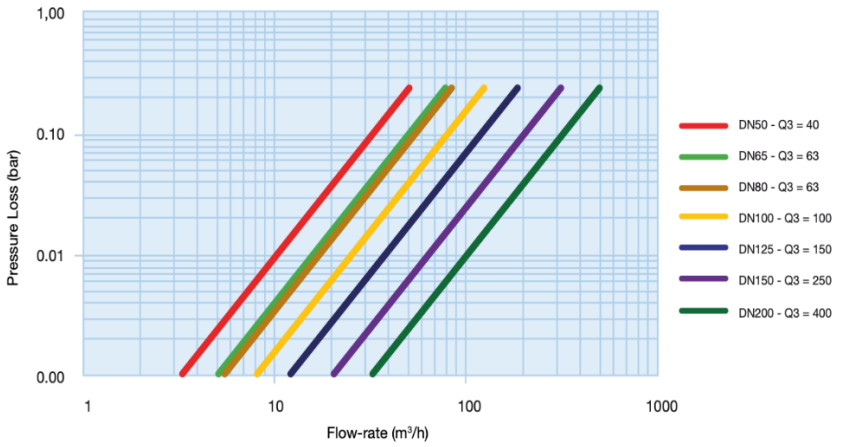
Technical measurement data and dimensions	Unit of measure	Diameter DN (mm)						
		50	**65**	**80**	**100**	**125**	**150**	**200**
Nominal flow Q3	m^3/h	40	63	63	100	150	250	400
Maximum flow Q4	m^3/h	50	80	80	125	200	313	500
Transition flow Q2	L/h	130	200	200	320	500	800	1280
Minimum flow Q1	L/h	80	130	130	200	300	500	800
Starting Flow*	L/h	40	65	65	100	150	250	400
Ratio Q3/Q1		500						
Total length (L)	mm	200	200	225	250	250	300	350
Height (H1)	mm	97	103	108	115	127	134	152
Total Height (H)	mm	182.5	198.5	215.5	233.5	259.5	275.5	312
Width (W)	mm	165	185	200	220	250	252	340
Housing Length (L1)	mm	110	110	110	110	110	110	110
Weight (kg)	kg	10	12	13	15	18	25	36
Flange type	-	ANSI/ ISO/ BSI	ISO	ANSI/ ISO/ BSI	ANSI/ ISO/ BSI	ISO	ANSI/ ISO/ BSI	ANSI/ ISO/ BSI

**Default values, optional down to Q1/4*



2. Pressure loss

Δ P Class	16 (below 0.16 bar for all diameters)



3. Power supply

Battery-powered	D size 3.6VDC Li-battery
Lifetime	up to 11 years[1] (10 years operation + 1-year storage)

[1] depending on sending interval of radiotelegram, telegram length, and operating temperature

4. Storage conditions

Storage temperature	from -25°C to +70°C (max. 2 weeks with T>35°C)
	from -13°F to +158°F (max. 2 weeks with T>95°F)

5. Operating conditions

Nominal pressure	PN 16	
Protection class	IP 68	
Medium	potable water	
Medium temperature	from 0.1°C to +50°C	from 32°F to +122°F
Environment class	B (Indoor installation) / O (Outdoor installation)	
Mechanical class	M1	
Electromagnetic class	E1, E2	
Sensitivity	U0D0 in any position - no straight sections required	
Flow Measurement	bi-directional	

6. Technical data display

Display indication	LCD 10 digits (programmable up to 3 decimals)
Units	m^3, m3/h, l/h
Value display	Volume, Flow, Reverse flow, Display test, Events, and alarms status, F/W version
Events codes and alarms	Reverse flow, Low battery, Leakage, Air bubbles, Burst, Frost, Overload, Heat, Dry, Over temperature, No consumption

[1] Depending on sending interval of radio telegram, telegram length and operating temperature

7. Communication interfaces

Wired communication	Digital pulse output (configurable open collector able that provides scaled pulses and its sense by default, or duplicated forward/net volume upon factory demand)
Wireless communication	NFC, Sigfox RC1

8. Modifiable parameters with ParamApp (Android application)

Display sequence	Net volume, Forward volume, Reverse volume, Actual flow rate, Active events or alarms codes
Measurement unit	Volume, Flow rate
Events	Burst, Leak threshold, Leak time, Over temperature, No consumption threshold, No consumption time

9. Approvals and certificates / Certifications and regulations

MID Certification	MID 2014/32/UE
Drinking water approval	ACS, WRAS, BELGAQUA
Market approval	CE marking