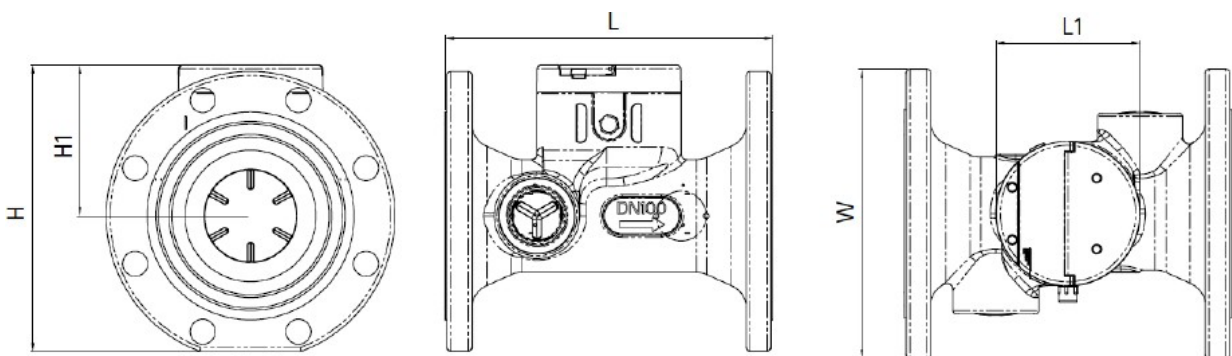# RUBIN® SONIC

Ultrasonic water meter

Technical datasheet
Technisches Datenblatt
Fiche technique
Scheda tecnica

1. 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	100	100	200	250	400	400
Ratio Q3/Q1	-	500	500	500	500	500	500	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	174	188	203	218	242	262	340
Housing Length (L1) (mm)	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

2. Power supply

Battery powered	3.6 VDC Lithium batteries not replaceable
Lifetime	up to 10 years[1]

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

3. Storage conditions

Storage temperature	from -20°C to +70°C (max. 2 weeks with T>35°C)
	from -13°F to +158°F (max. 2 weeks with T>95°F)

4. 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 temperature	from 1°C to +70°C	from 34°F to +158°F
Environment class	B (Indoor installation) / O (Outdoor installation)	
Mechanical class	M1	
Electromagnetic class	E2	
Sensitivity	U0D0	
Flow Measurement	bi-directional	

5. Technical data display

Display indication	LCD 10 digits
Units	m^3, L, hour, min, sec
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, Heat, Dry, Over temperature, No consumption

6. Communication interfaces

Wired communication	Open collector / Mbus
Wireless communication	LoRaWan / Wireless Mbus 868Mhz

7. Modifiable parameters with ParamApp (Android application)

Display sequence duration	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

8. Approvals and certificates / Certifications and regulations

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