



ALSONIC

Ultrasonic Building Automation Water Meter

ALSONIC BAWM Series



GENERAL

The Alsonic Building Automation-Water meters (BAWM) are a transit-time ultrasonic flow meter designed for domestic water metering. For sizes of ½"-1½ "(15-40mm) with brass and NPT or BSP threads and for bigger sizes it comes with Carbon steel flanges ANIS or DIN . Standards temperature are 0.1-140°F (0.1°C to 60 °C) and can be as high as 185°F (85°C). temporary at a maximum pressure of 232PSI (16bar). The alphanumeric LCD displays flow rate totals, leakage alarm, reverse flow, and much more. The remote readout can be configured as M-Bus, Encoder or RF wireless . The AlsonicBAWM is superior to mechanical water meter because it has no moving parts, measures much lower flows, detects leakage, virtually no pressure drop with higher accuracies. It also in applications with some particles while accuracy will not degrade over time . The SmartMeasurement patented. sensor are tamper-proof with multiple AMR / AMI options.



FEATURES

- Displays rate, total, leakage alarm, reverse flow, etc.
- No moving parts, durable brass or castiron body and maintenance free.
- Temperature compensation for cold water and hot water up to 176°F (80°C)
- Sizes from 1/2-12" (15-300)
- OIML R49 / ISO 4064 Class D, ANSI / AWWA C708 Standard and complies with NSF 61-Annex
- Available for AMR with M-Bus / MODBUS
- IP68 / NEMA 6P submersible
- 2 year data logger with 700 daily and 24 monthly totals
- More than 6 year battery life
- NIST traceable calibration certificate
- Built-in diagnostics

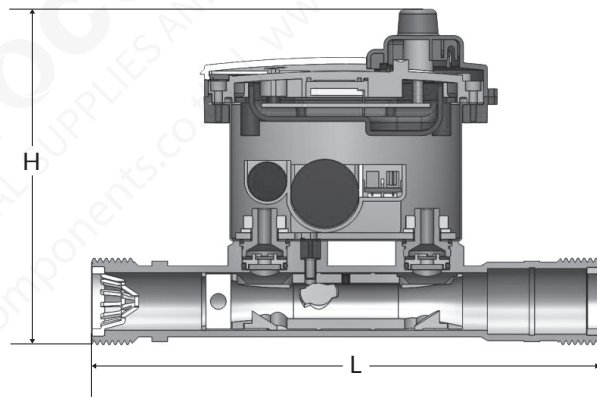
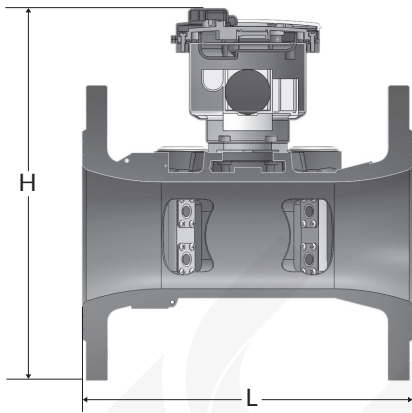
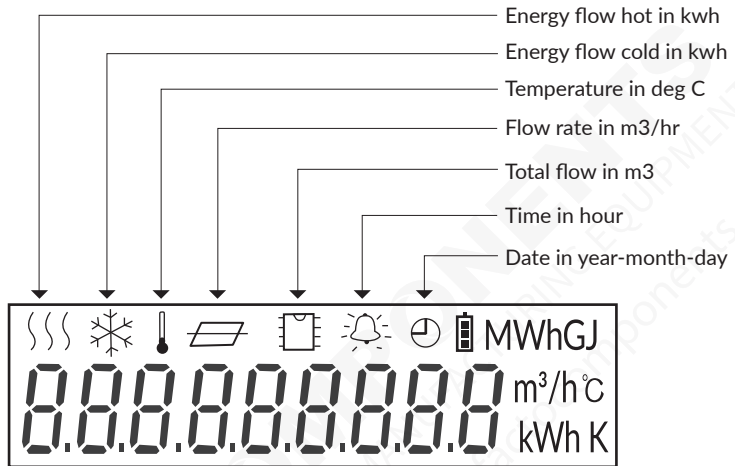


SPECIFICATIONS

Flow measurement :	Transit time ultrasonic method	Outputs:	MBUS, RS485, Pulse, Lora, LorRa WAN,NB-IoT etc..
Process Connection:	Thread or Flange	Approval:	OIML R49/ISO 4064 Class D, ANSI/AWWA C708 Standard and NSF 61-Annex G compliant
Fluid Temperature:	T30/T50/T80	Protection:	IP68/NEMA 6P submersible rating with sensor IP67
Pipe Size:	15~300mm (1/2-12") **	Response Time:	< 1 second
Pressure:	std: PN16 (232Psi), opt: PN25 (362Psi)	Ambient Temperature:	-25~+55 °C
Pressure loss:	Less than 0.25bar (3.6 Psi)	Display:	LCD (8 digits + prompting character)
Flow Body Material:	brass, cast iron, 304SS	Resolution:	999.99999 - 999999.99 - 99999999
Flow rates:	Up to 1200M3/Hr (5280gpm) see chart	Power Supply (DC):	3.6V/2.4Ah Li battery (for 6 years of operation)
Resolution -Flow:	0.03m³/h	Data Storage:	EEPROM, 256 byte up to 2 years
Resolution -Temp:	±0.01°C (0.02°F)	Electromagnetic Class:	E1
Temperature range:	+2~+95°C (35.6-203°F)		
Engineering units:	Metric or US English		
Pressure Loss Class:	DN15-DN20: Δp40; DN25-DN40:Δp63		
Max Admissible Pressure(MAP):	MAP16 (MAP25, MAP16, MAP10)		

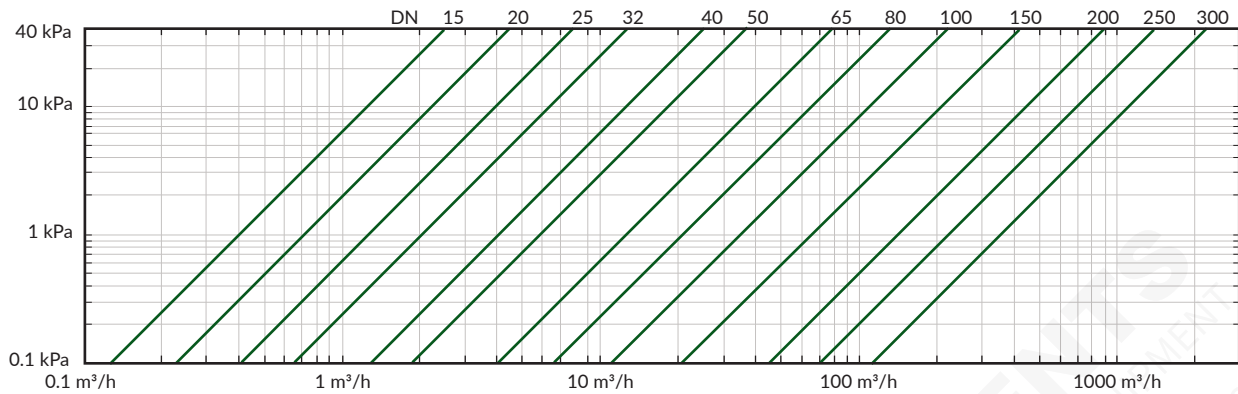
Dimensions

Display:	9-bit LCD display. Can display totalizer, Instant flow, error alarm, flow direction, output
Data Storage:	Up to 10 years data, year, month and day
Output:	Modbus (baud rate: 19200, 9600, 4800, 2400); 4-20mA, Pulse, (default 2ml/pulse)
EM compatibility:	E2
Power supply:	DC3.6V (disposable lithium batteries) ≥15 years
IP Grade:	IP68



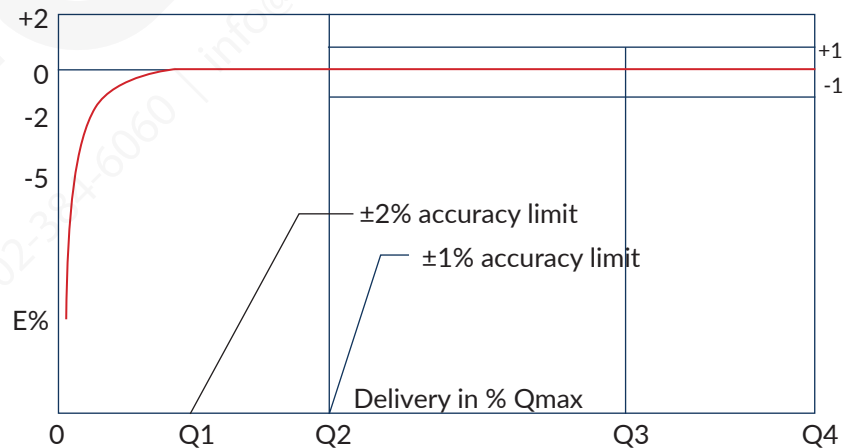
Line size inch (mm)	Length inch (mm)	Height inch (mm)	Width inch (mm)	Connection	Weight Lb. (kg)
½" DN15	6.49 (165)	4.01 (102)	4.33 (110)	G ¾"	3.30 (1.5)
¾" DN20	7.67 (195)	4.21 (107)	4.33 (110)	G 1"	3.30 (1.5)
1" DN25	8.85/10.23 (225/260)	4.41 (112)	4.33 (110)	G 1 ¼"	3.30 (1.5)
1½" DN32	7.08 (180)	4.76 (121)	4.33 (110)	G 1 ½"	3.96 (1.8)
1¾" DN40	7.87 (200)	5.19 (132)	4.33 (110)	G 2"	4.41 (2)
2" DN50	7.87 (200)	9.25 (235)	6.49 (165)	DIN/ANSI	19.84 (9)
2½" DN65	7.87 (200)	9.76 (248)	7.28 (185)	DIN/ANSI	26.45 (12)
3" DN80	8.85 (225)	10.39 (264)	7.87 (200)	DIN/ANSI	28.66 (13)
4" DN100	9.84 (250)	11.29 (287)	8.66 (220)	DIN/ANSI	33.06 (15)
5" DN125	9.84 (250)	12.59 (320)	9.84 (250)	DIN/ANSI	61.72 (28)
6" DN150	11.81 (300)	13.97 (355)	11.22 (285)	DIN/ANSI	70.54 (32)
8" DN200	13.77 (350)	16.14 (410)	13.38 (340)	DIN/ANSI	99.20 (45)
10" DN250	5.91 (150)	17.79 (452)	15.94 (405)	DIN/ANSI	149.91 (68)
12" DN300	19.68 (500)	21.65 (550)	18.11 (460)	DIN/ANSI	211.64 (96)

Pressure Loss - Kpa



Preformance

Line size inch (mm)	Q4 m³/hr	Q3 m³/hr	Q2 m³/hr	Q1 m³/hr	ΔP kpa	No.Path
½"DN15	3.125	2.5	0.010	0.006	23	1
¾"DN20	5.0	4.0	0.016	0.010	23	1
1"DN25	7.875	6.3	0.025	0.016	19	1
1½"DN32	12.5	10.0	0.064	0.040	17	1
1¾" DN40	20.0	16.0	0.102	0.064	16	1
2" DN50	31.25	25	0.200	0.125	15	2
2½" DN65	50	40	0.320	0.200	14.5	4
3" DN80	78.75	63	0.504	0.315	14	4
4" DN100	125	100	0.800	0.500	13	4
5" DN125	200	160	1.280	0.800	13	4
6" DN150	312.5	250	2.000	1.250	13	4
8" DN200	500	400	3.200	2.000	12	4
10" DN250	787.5	630	5.040	3.150	11.6	4
12" DN300	1250	1000	8.000	5.000	11	4



** Please contact your local SmartMeasurement application engineer
You also need to provide the following information:

TYPE OF FLUID	Please provide the name of your fluid, including operating density and viscosity
LINE SIZE	Nominal pipe size and sensor connection type (insertion, clamp, etc..)
PROCESS PRESSURE AND TEMPERATURE	We will calibrate your flowmeter as close to your operating conditions as possible
TYPE OF ELECTRONICS	Output and installation type (compact, wall mount, etc..)
FLOW RANGE	Please provide the flow range

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Example 1: Alsonic-BAWM-ST-C100-NN-NN-NC-CT								
ALSONIC BAWM	**	**	**	**_	*	*	**_	DESCRIPTION
Standard type	ST							Flow Meter
DN15~DN40 ①		S**						Line size
DN50~DN300 ②		C**						
Special size		SP						
Standard temperature: +2~+50°C			NN					Temperature
High temperature: +2~+80°C			HT					
Standard pressure: up to 1.6Mpa				NN				Pressure
High pressure: up to 2.5Mpa				HP				
Standard - brass flowbody ①					NN			Material
Standard - castiron flowbody ②					NN			
Special material					**			
M-Bus						MB		Output
RS485						485		
Wireless						WL		
Infrared output						IR		
Pulse output (total flow and total energy flow)							PT	Options
M-bus to GPRS: collector (256 to 1) + concentrator							MG	
Wireless to GPRS: data collector (50 m) + data concentrator							WG	
M-Bus to RS232 transmitter (64 to 1)							MB	
Wireless to GPRS: data collector (1 to 1)							GP	
With pre-set control valve							VL	
Other options							OP	

