↗ GENERAL

Alsonic Building Automation - Energy meters employ transit-time ultrasonic flow measuring technology combined with two integrated PT1000 RTD temperature sensors for calculating both total and instantaneous energy consumption. These in-line style flow sensors are available for line sizes ranging from ½" to 12". The Alsonic BA Energy meter may be used to provide highly accurate thermal energy measurement in chilled water, hot water and condenser water systems. Our microprocessor based, field programmable electronics provide local indication of energy, flow and temperature data via an alphanumeric LCD display. An isolated solid state dry contact is provided for indication of pre-programed totals or alarm conditions. Optional analog outputs and network communications are also available.

↗ FEATURES

- ☐ Measures energy consumption rate and total
- ☐ Local or remote wall-mount display types available
- ☐ Proven ultrasonic technology for flow measurement; PT 1000 RTDs for temperature measurement
- ☐ Convenient spool piece mounting for sizes up to 300mm, optional clamp on type for larger sizes
- ☐ Wide range flow rates; 0.025 to 1000 m^3/h
- ☐ PT1000 -DIN/IEC751B temperature sensors
- ☐ Data storage - includes time & date, flow, energy flow with totalization
- ☐ Response time of less than 1 second
- ☐ NIST traceable calibration certificate
- ☐ Built-in diagnostics

↗ SPECIFICATIONS

- ● Flow measurement : Transit time ultrasonic method
- ● Transducer type : Spool piece
- ● Temperature measure : Pt1000 -DIN/IEC751B
- ● Pipe Size : ½ ~ 12" (15~300mm)**
- ● Flow Body Material : Brass or cast iron
- ● Enclosure Material : ABS or Polycarbonate
- ● Resolution -Flow : 0.001m^3/h
- ● Resolution -Temp. ±0.01 °C (0.02°F)
- ● Liquid temperature :

- ● Accuracy : ±2% of range
- ● Repeatability : ±1% of reading
- ● Digital communication : Std - M bus
  Opt: wireless, Modbus, 4-20mA
  GPRS（contact the factory）
- ● Ambient Temperature : -25~+55 °C

- ● Display : LCD (9 digits + prompting character)
  energy rate, total consumption,
  flow rate, total flow
  temperature,
  time, date
- ● Power Supply : 3.6V/2.4Ah Li battery (for 5 years of operation)
- ● Data Storage : EEPROM, 256 byte
  total flow, total energy flow, SN,
  product date, monthly flow report
- ● Signal inputs : Two RTD

- ● Response Time : < 1 second
- ● Enclosure : NEMA 4X (IP65), NEMA 4 (IP54)
- ● Sensor : IP67

**Note: for larger line sizes please see Alsonic-EG catalog

↗ Dimensions

● Brass body

Line size: ½~1½" (DN15~DN40)

Accuracy: 2% FS

Power supply: 3.6V_{DC} battery

Connection: threaded

Temperature: up to 80 °C

Pressure: up to 10 bar (opt 16 bar)

Output: std - none

opt - pulse, 4-20mA

Communication: std - M bus

opt - RS485, Modbus,

wireless,GPRS

Option: with valve
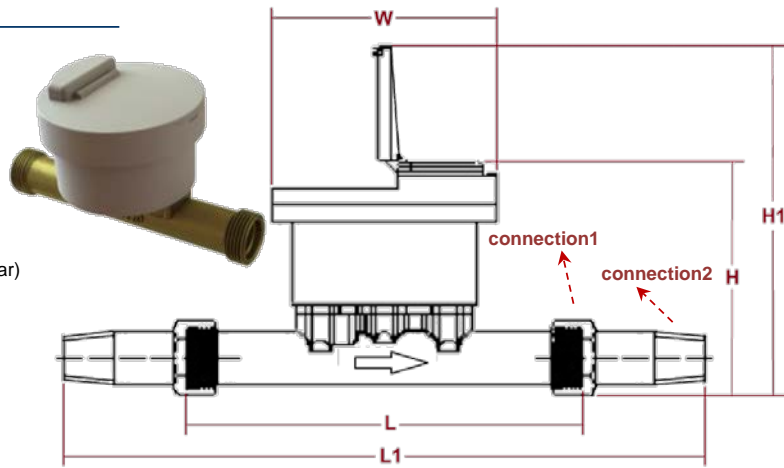
Line size	Flow range (m³/hr)	L (mm)	L1 (mm)	H (mm)	H1 (mm)	W (mm)	Connection1	Connection2
½" (DN15)	0.025~2.5	165	261	102	167	110	G ¾"	R ½"
¾" (DN20)	0.04~4	195	301	107	172	110	G 1"	R ¾"
1" (DN25)	0.063~6.3	225/260	247/382	112	177	110	G 1 ¼"	R 1"
1¼" (DN32)	0.1~10	260	386	121	186	110	G 1 ½"	R 1 ¼"
1½" (DN40)	0.16~16	300	431	132	197	110	G 2"	R 1 ½"

● Cast iron body

Line size: 2"~12" (DN50~DN300)

Accuracy: 2% FS

Power supply: 3.6V_{DC} battery

Connection: flange

Temperature: up to 80 deg C

Pressure: up to 10 bar (opt 16 bar)

Output: std - none

opt - pulse, 4-20mA

Communication: std - M bus
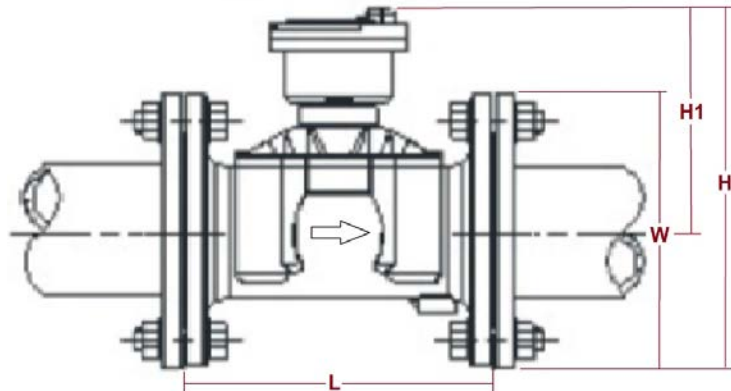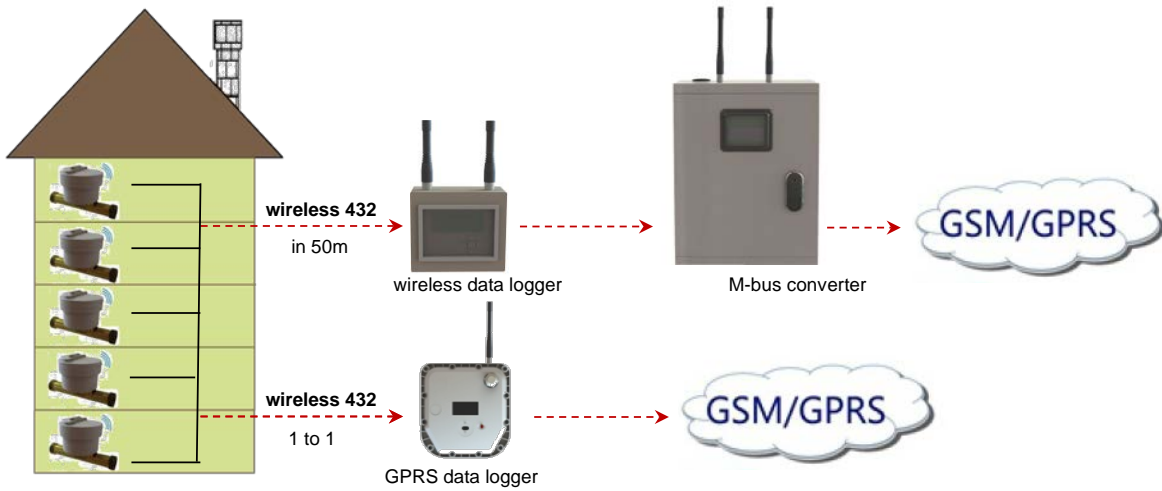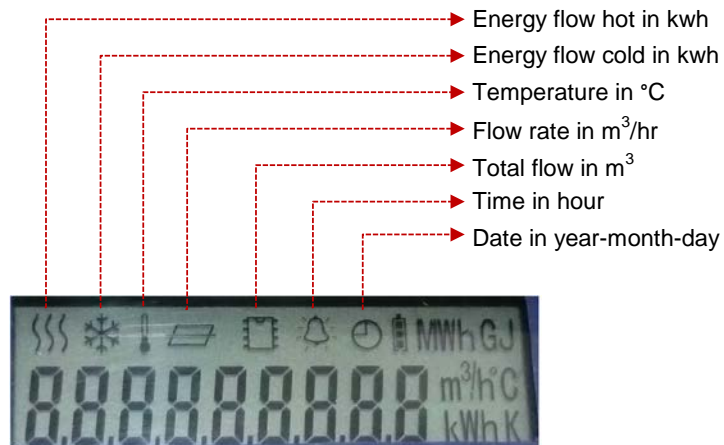
opt - RS485, Modbus, wireless,GPRS

Option: with valve

Line size	Flow range (m³/hr)	L (mm)	H (mm)	H1 (mm)	W (mm)	Connection	Measure path
2" (DN50)	0.16~25	200	235	150	165	ANSI 150#	2 Channels
2½" (DN65)	0.25~40	200	248	158	185	ANSI 150#	4 Channels
3" (DN80)	0.4~63	225	264	175	200	ANSI 150#	4 Channels
4" (DN100)	0.63~100	250	287	181	220	ANSI 150#	4 Channels
5" (DN125)	1~160	250	320	199	250	ANSI 150#	4 Channels
6" (DN150)	1.6~250	300	355	217	285	ANSI 150#	4 Channels
8" (DN200)	2.5~400	350	410	246	340	ANSI 150#	4 Channels
10" (DN250)	4~630	450	452	272	405	ANSI 150#	4 Channels
12" (DN300)	6.3~1000	500	550	320	460	ANSI 150#	4 Channels

⤴ OUTPUT & COMMUNICATION

M-bus
64 to 1

RS232

M-bus
256 to 1

M-bus multiplexer/logger

M-bus converter

GSM/GPRS

wireless 432
in 50m

wireless data logger

M-bus converter

GSM/GPRS

wireless 432
1 to 1

GPRS data logger

GSM/GPRS

⤴ Display

→ Energy flow hot in kwh
→ Energy flow cold in kwh
→ Temperature in °C
→ Flow rate in m^3/hr
→ Total flow in m^3
→ Time in hour
→ Date in year-month-day

** Please contact your local Smartmeasurement^{TM} application engineer

You also need to provide the following information:

Type of Fluid	**Please provide water temperature and pressure**
Line Size	**Nominal pipe size and sensor connection type**
Process Pressure and Temperature	**We will calibrate your flowmeter as close to your operating conditions as possible**
Type of Electronics	**Output and communication**
Flow range	**Please provide the flow range**

↗ Model Selection Guide

Alsonic-BAEG									
Example 1: Alsonic-BA EG-ST-C100-NN-NN-NC-CT									
Alsonic-BAEG-	**	**	**	**	**	**	**		**Description**
Standard type	ST								Flow Meter
Brass ½" (DN15)		S15							Transducers
Brass ¾" (DN20)		S20							
Brass 1" (DN25)		S25							
Brass 1¼" (DN32)		S32							
Brass 1½" (DN40)		S40							
Cast iron 2"~12" (DN50~DN300)		C**							
Special type		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 - 1m x 2 signal cables, 1m x 2 RTD cables					NC				Cable Length
(**)m x 2 signal cables, (**)m x 2 RTD cables					**				
M-Bus						MB			Output
RS485						485			
Wireless						WL			
Infrared data communication						IR			
Pulse output (total flow and total energy flow)							PT		Options
M-bus to GPRS: collector(256 to 1) + data logger							MG		
Wireless to GPRS: data collector(50 m) + data logger							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		