



SMC ALMAGBAT is a battery operated electromagnetic mainly used in water applications. The ALMAGBAT's electronics (converter) is equipped with a changeable lithium battery that can operate for up to three years of continuous operation. Users can extend the operation period by using a high-capacity battery instead of our standard lithium battery. Remote communication can be obtained by a base-station type radio communication network system, with the use of a base station built in the central area, coverage radius can be as long as 1000 Meters. Base stations within a closer distance (SRD mode), can be used by an opened frequency range of 928 MHz. Base stations, via GPRS or CDMA mobile communication network, can transmit data to any central office. ALMAGBAT is designed with an IP68, die-cast aluminum enclosure which is particularly applicable for damp environment or underground mines.

FEATURES

- ❑ Variety of lines (see ordering sheet on page 4)
- ❑ Flow Velocity range:0-15 m/s
- ❑ GPRS, CDMA and SRD radio communication
- ❑ Designed for clean water > 20 uS/cm
- ❑ IP68 enclosure that can be used for underground applications
- ❑ FEP Liner suitable in vacuum tube.
- ❑ High accuracy of $\pm 0.5\%$ of reading
- ❑ Empty pipe, current excitation and battery capacity alarms
- ❑ NIST traceable calibration certificate

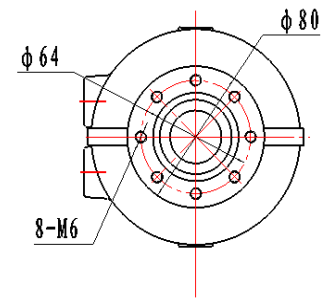
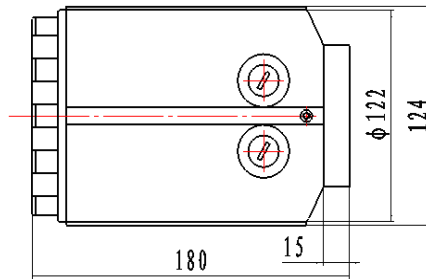


SPECIFICATION

- | | | | |
|-------------------|--|-------------------------|--|
| ● Size | : 3-600mm (1/8 to 24") | ● Electrode & Grounding | : Stainless Steel 316L
Hastelloy B
Hastelloy C
Titanium
Tantalum
Platinum-iridium alloy |
| ● Measuring Range | : 0 - 0.25 mps (0.8 fps) min.
0 - 15 mps(39 fps) -bi-direction | ● Cable Entry | : 2 X PG11 |
| ● Temperature | -10 ~ +80 Dec C (Polyurethane)
-20 ~ +70 Dec. C (Neoprene)
-40 ~ +150 Deg. C (FEP) | ● Ambient Temperature | : -25 to +60 Deg. C |
| ● Material | -40 ~ +150 Deg. C (PTFE) | ● Battery life | : Up to 66 months - see page two
Notes : Battery life depends on flow meter size and/or sampling time (either every 15 or 30 seconds) |
| ● Measuring Tube | : Stainless Steel 304 | ● Resistance excitation | : Coil: 100~120 ohm (two in series)
: Coil : 30~50 ohm (two in series) -optional |
| ● Flange material | : Carbon Steel, 304 and 316 SS | ● Accuracy | : +/-0.5% of reading(Velocity>=0.5 m/s)
+/-0.0025 m/s(Velocity < 0.5 m/s)
+/-0.2% of Reading |
| ● Flange type | ANSI, DIN and JIS flanges | ● Power requirements | : 250mA excitation convertor |
| ● Coil Housing | : Carbon Steel(standard)
Stainless Steel 304(OPTION)
Stainless steel 316(OPTION) | ● Outputs | : 4-20mA, Pulse,RS232/485, HART, GPRS, CDMA
Notes: When using GPRS modem - batter life will be 2 years |
| ● Liner | : Polyurethane(25-600 mm)
Neoprene(50-600 mm)
FEP(3-300 mm)
PTFE(25-600 mm) | | |
| ● Protection | : IP 68 | | |
| ● Conductivity | : to be more than 20 uS/cm | | |

➤ **Mounting drawing**

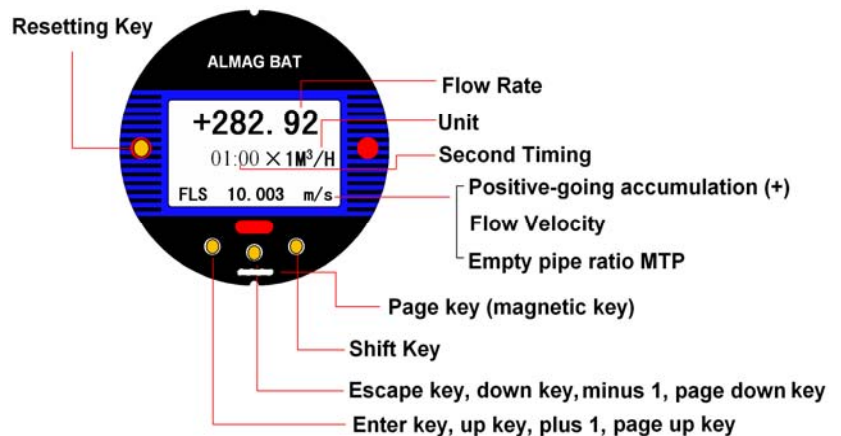
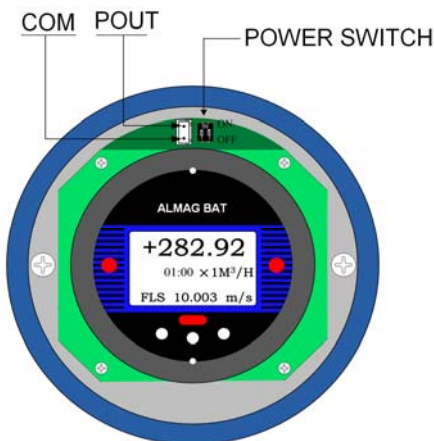
● **Standard Integral type**



● **GPRS function type**



● **Battery Powered Transmitter Display**



➤ **Battery**

- LI-SOCL2 battery (part number: ER34615)
- Rating: 3.6V, 19000 mAh
- The max continue working current: 200 mA
- The max pulse current: 400 mA
- Working temperature: -55~+85 deg C
- Dimensions: Φ34.2×61.5mm
- Weight: 106g
- Battery life:

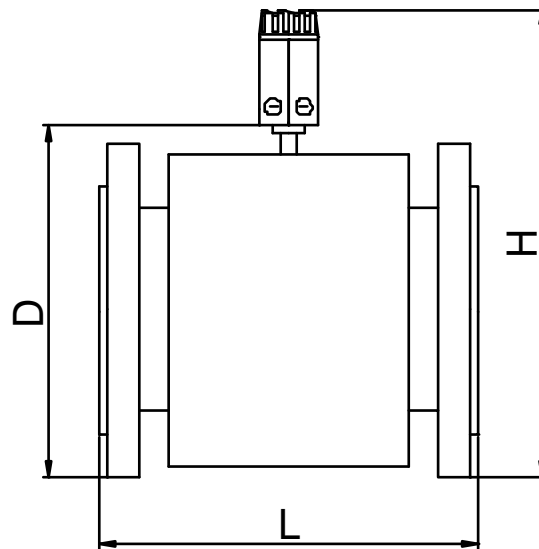
Line size	3-150 mm	200-350mm	400-600mm
1/15HZ	40 months	32 months	30 months
1/30HZ	66 monts	60 months	50 months

Notes: Excitation frequency

1/15HZ - means flow is monitored every 15 seconds

1/30Hz - means flow is monitored every 30 seconds

➤ DIMENSIONS



DN	Nomal pressure (MPa)	Dimension (mm)			Weight Kg
		L	D	H	
15	4.0	200	155	395	3.5
20		200	160	400	4.5
25		200	165	405	5
32		200	180	420	6.5
40		200	190	430	7
50		200	200	440	9
65		250	220	460	11
80		250	240	480	13
100	1.6	250	250	490	15
125		250	280	520	19
150		300	320	560	24
200	1.0	350	380	620	32
250		450	430	670	47
300		500	490	730	67
350		500	550	790	78
400		500	600	840	95
450		550	640	880	110
500		550	700	940	130
600		600	800	1040	160

**** Please contact your local SMC application engineer**

You also need to provide the following information:

Type of Fluid	We need the name of your fluid, including operating PH, corrosive and conductivity.
Full Scale Flow	Maximum and minimum flow rates, units must be Lb/hr, LPM or gpm, etc..
Line Size	we need to know your pipe size as well connection type (flange, threaded, etc..)
Pressure & Temperature	We calibration your Flowmeter as close to your application as possible

Model Selection Guide

ALMAG BAT Series																	
Example: ALMAGBAT-100-33-PN1.6-E00-100-001-0																	
ALMAGBAT	**-	*	*_	**	**_	*	*	*_	*	*	*_	*	*	*_	*	*	Description
15 ~ 600 mm	**															Line Size	
Stainless Steel 316L	0															Electrode	
Pt	1																
HB	2																
Ta	3																
Ti	4																
HC	5																
TuC	6																
Chloroprene Rubber(Neoprene)	3															Liner Material	
Polyurethane	4																
PTFE	5																
FEP	6																
ETFE	7																
PO	8																
PPS	9																
DN, ANSI or JIS flanges	**															Flange style	
Max Pressure with flanges (10~80, 1/2~3")	4.0															Nominal Pressure (Mpa)	
Max Pressure with flanges (100~150, 4~6")	1.6																
Max Pressure with flanges (200~1000, 8~40")	1.0																
80C or less	E															Working Temperature	
150 C or less	H																
Not Needed	0															Grounding Rings	
Needed	1																
IP65	0															Protection	
IP68	1																
Integral round vertical type with display	DIS															Transmitter	
None	0															Communication	
SRD	1																
GPRS	2																
CDMA	3																
Carbon Steel	0															Housing Material	
Stainless Steel 304 SS	1																
Carbon Steel	0															Flange Material	
Stainless Steel 304 SS	1																
Needed	0															Mating Flange	
Not Needed	1																
None	NX															Explosion proof	
Explosion Proof	Ex																
Every 15 seconds	15															Excitation frequency	
Every 30 seconds	30																