

Description

Battery-powered electromagnetic flow meter adopts lithium battery ,which is capable of working 5-10 years consecutively. If a high-capacity battery is applied, the convertor will have longer working time. The convertor has GPRS and CDMA wireless data transmission function, RS485modbus protocol (external power supply or battery-powered) communication function, and SRD mode wireless network communication system to realize date collection and management. Stainless steel outer covering and infrared remote control is applied to battery powered electromagnetic converter to meet IP68 level seal protection requirement, which means the convertor can be used in underground and other damp places.

Benefit

- ◆ Power Supply: 3.6V lithium batteries, 24V or 220V
- ◆ Communication,RS485 and GPRS are available..
- ◆ Integrated verification,diagnostic function and empty pipe detection.
- ◆ Measure forward and reverse direction flows.
- ◆ Built-in reference electrodes,no need to connect ground ring.
- ◆ Dual frequency excitation and stable zero point.
- ◆ Precision coil winding technology,makes magnetic field more uniform.
- ◆ High protection grade,IP68,can be barried in ground
- ◆ High accuracy: $\pm 0.5\%$ of reading, $\pm 0.3\%$ and $\pm 0.2\%$ optional,velocity >0.3 m/s.



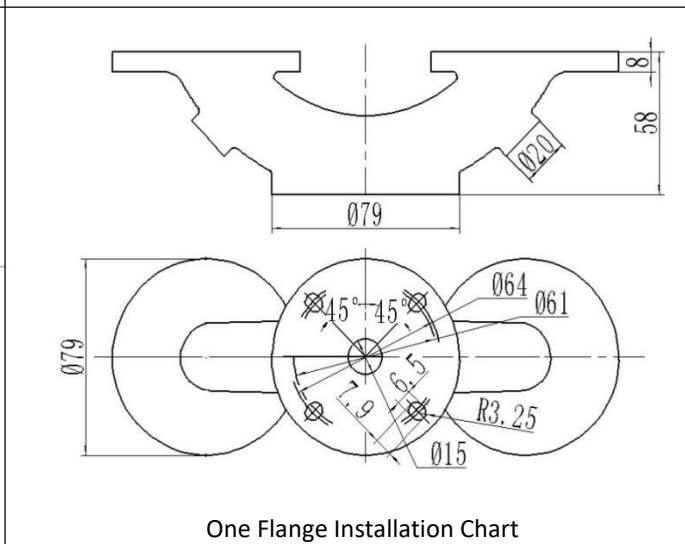
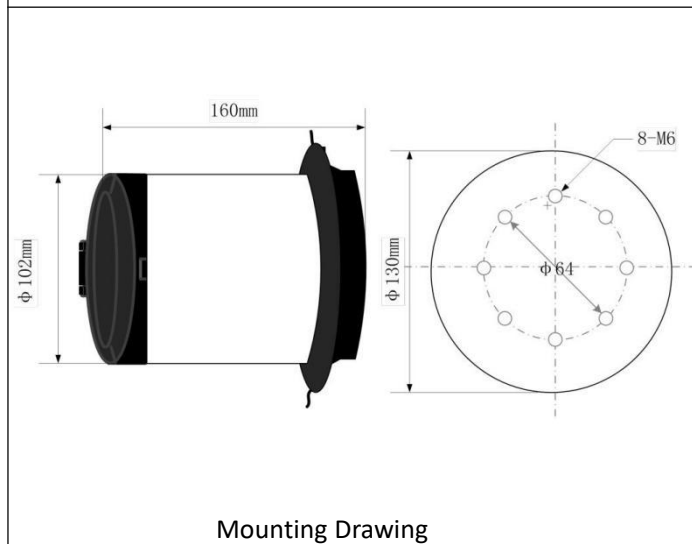
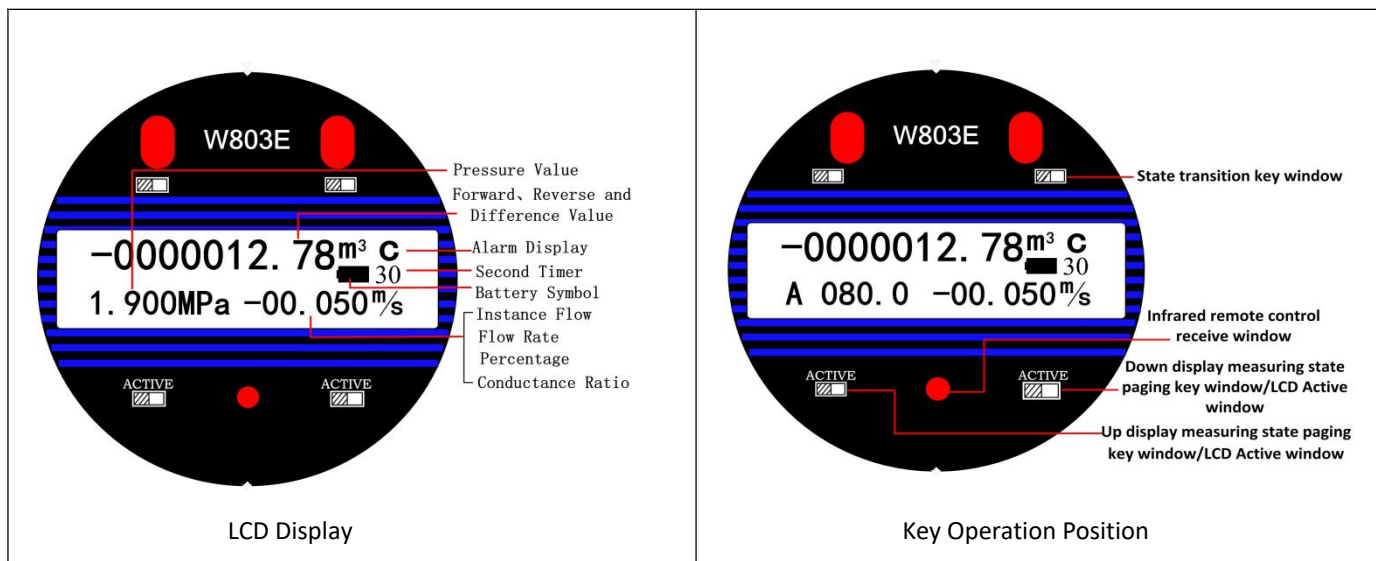
Battery-powered With GPRS (Integral) With GPRS (remote)

Standard Specification

- | | | |
|-----------------------|---|---|
| ● Size | : DN10-DN800mm (4"~32") | 1.6 MPa (DN200-DN600) |
| ● Accuracy | : $\pm 0.5\%$ of reading, $\pm 0.3\%$ and $\pm 0.2\%$ optional,velocity >0.3 m/s | 1.0 MPa (DN700-DN1000)
0.6 MPa (DN1200-DN3000) |
| ● Velocity | : Normal liquid $>5 \mu\text{S/cm}$,
DI water $>20 \mu\text{S/cm}$ | ● Frequency Output : 1~5000 Hz |
| ● Protection Grade | : IP68 | ● Language : English,Chinese
Other languages are available |
| ● Electrode | : SS316L, Hastelloy C, Hastelloy B,
Titanium,Tantalum, Platinoidridium | ● Flange Standard : EN1092-1
PN10,PN16,PN25,PN40
ANSI BS16.5 Class 150,300,600
JIS2220 10K,20K,40
AS2129 Table D,Table E
AS4087 PN16,PN21,PN35 |
| ● Power Supply | : 5 lithium batteries,
AC85~250V, DC20V~36V | ● Process Connection : Flange,Tri-clamp,Clamped,Tread |
| ● Power Consumption | : $<20\text{W}$ | ● Exciting Frequency : 3.12Hz, 4.16Hz, 6.25Hz
12.5Hz, 25Hz, 30Hz |
| ● Communication | : RS485,GPRS | ● Measuring Tube : Stainless Steel 304 |
| ● Ambient Temperature | : $-20^{\circ}\text{C} \sim 60^{\circ}\text{C}$ | ● Flange : Carbon Steel (standard)
Stainless Steel 304 (optional)
Stainless Steel 316 (optional) |
| ● Relative Humidity | : 5%~90% | ● Straight Pipe : Inlet Path $\geq 10\text{D}$ Outlet Path $\geq 5\text{D}$ |
| ● Liner Material | : PTFE ($-20^{\circ}\text{C} \sim 120^{\circ}\text{C}$, DN15-DN1600)
FEP ($-20^{\circ}\text{C} \sim 120^{\circ}\text{C}$, DN25-DN1800)
PFA ($-20^{\circ}\text{C} \sim 120^{\circ}\text{C}$, DN3-DN800)
PU ($-10^{\circ}\text{C} \sim 60^{\circ}\text{C}$, DN40-DN1600)
CR ($-10^{\circ}\text{C} \sim 80^{\circ}\text{C}$, DN40-DN3000)
FLS ($-10^{\circ}\text{C} \sim 200^{\circ}\text{C}$, DN40-DN3000) | ● Signal Output : 4~20 mA,pulse |
| ● Velocity | : 0.1 m/s ~ 15 m/s | ● Explosion-proof : Exd IIB T6 Gb |
| ● Nominal Pressure | : 4.0 MPa (DN3-DN150) | |

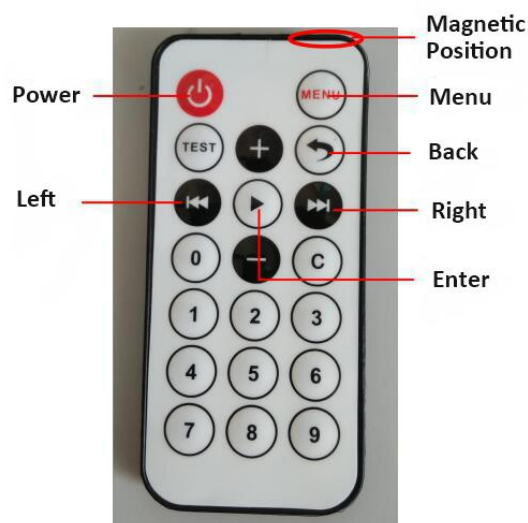
Electromagnetic Flow Meter

Battery-powered



Measuring cycle	50mA excitation	20mA excitation
30S	120	200
15S	60	100
14S	56	93
13S	52	86
12S	48	79
11S	44	73
10S	40	66
9S	36	59
8S	32	53
7S	28	46
6S	24	39
5S	20	33
4S	16	26
3S	12	19

Battery Life



Infrared Remote Controller

Selection Table electromagnetic flow meter

Model	QTL/D	DN150-	S1-	P1- L1-	E1-	K1	-F1-	D1	-G1	-C1	-F1
Caliber	DN10-DN800										
Structure	Integrated	S1									
	Seperated	S2									
Connection	Flange		J1								
	Tri-clamp		J2								
	Clamped		J3								
	Tread		J4								
Liner Material	PTFE			L1							
	PFA			L2							
	F46			L3							
	Neoprene			L4							
	Polyurethane			L5							
Electrode Material	Stainless steel 316L				E1						
	Hastelloy B				E2						
	Hastelloy C				E3						
	Titanium				E4						
	Platinum-iridium				E5						
	Tantalum				E6						
Shell Material	Carbon Steel					K1					
	Stainless steel 304					K2					
	Stainless steel 316L					K3					
Flange Standard	ANSI 150#, 300#, 600#						F1				
	JIS 10K, 20K, 40K						F2				
	DIN PN10,PN16,PN25,PN40						F3				
Power Supply	AC85~250V							D1			
	DC20V~36V							D2			
	3.6V Lithium							D3			
Signal Output	4~20 mA								G1		
	Pulse								G2		
Communication	RS232									C1	
	RS485									C2	
	Hart									C3	
	Modbus									C4	
	Profitbus									C5	
Protection Grade	IP65										F1
	IP68										F2



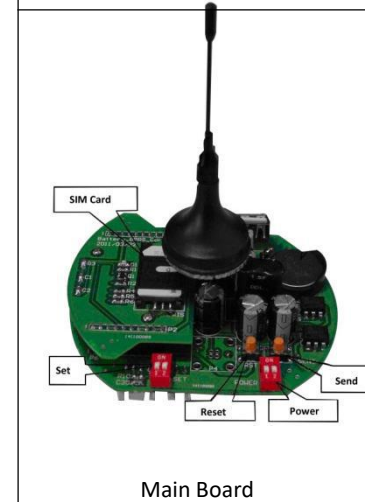
Coil



Electrode



Liner

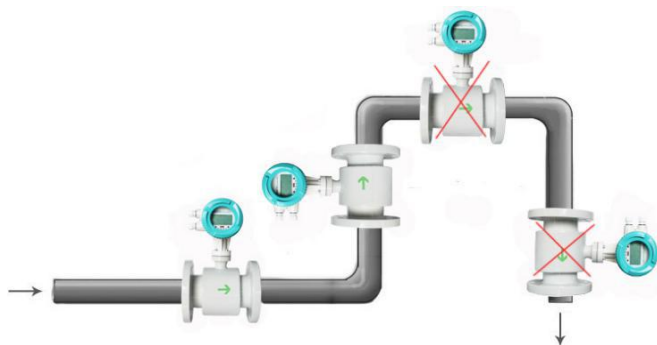


Main Board

Electromagnetic Flow Meter

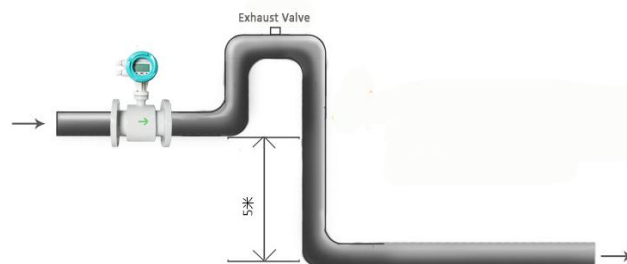
Battery-powered

Installation Notice



Installed at the lowest point and vertical upward direction

Don't install at the highest point and vertical downward direction



Install exhaust valve at the downstream of flow meter when drop is more than 5m



Installed at the lowest point when used in open drain pipe



Need 10D of upstream and 5D of downstream



Don't install it at the entrance of pump, install it at the exit of pump



Installed at the rising direction

Electrode Property

SS316L	Applicable in water, sewage and corrosive mediums. Widely used in industries of petrol, chemistry, carbamide, etc
Stainless Steel Covered with tungsten carbide	Applicable in mediums of no corrosive and low abrasion.
Hastelloy B	Having strong resistance to hydrochloric acid of any concentration which is below boiling point. Also resistant against vitriol, phosphate, hydrofluoric acid, organic acid etc, which are oxidizable acid, alkali and non-oxidizable salt.
Hastelloy C	Be resistant to oxidizable acid such as nitric acid, mixed acid as well as oxidizable salt such as Fe ⁺⁺⁺ , Cu ⁺⁺ and sea water
Titanium	Applicable in seawater, and kinds of chloride, hypochlorite salt, oxidizable acid (including fuming nitric acid), organic acid, alkali etc. Not resistant to a pure reducing acid (such as sulphuric acid, hydrochloric acid) corrosion. Acid contains antioxidant (such as Fe ⁺⁺⁺ , Cu ⁺⁺) will greatly reduce corrosion.
Tantalum	Having strong resistance to corrosive mediums that is similar with glass. Almost applicable in all chemical mediums. Except for hydrofluoric acid, oleum and alkali.
Platinum-iridium	Almost be applicable in all chemical mediums except for aqua fortis, ammonium salt.